

THE ACHIEVEMENT GAPS AND MATHEMATICS EDUCATION: AN
ANALYSIS OF THE U.S. POLITICAL DISCOURSE IN LIGHT OF
FOUCAULT'S GOVERNMENTALITY

A Dissertation

by

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ABSTRACT

The research question that I posed for this investigation is how the principles of Foucault's governmentality can shed light on the political discourse on the achievement gaps (AGs) at the federal level.

The AGs have been for some years now an actively researched phenomenon in education in the U.S. as well as in the rest of the world. Many in the education profession community, politicians, social activists, researchers and others have considered the differences in educational outcomes an indication of a grave deficiency of the educational process and even of the society at large.

I began this work with a review of the educational research relevant to the above mentioned research question. Then I presented my research methodology and described how obtained my data and analyzed them both qualitatively and quantitatively. The results of the analysis were discussed in the light of federal legislation, the work of Foucault on governmentality, and the relevant literature and woven into a series of narratives. Finally, I abstracted these narratives into a model for understanding the federal policy discourse. This model consists of an intersection of eight antitheses: (1) the regime of discipline versus the apparatuses of security, (2) the appeal to danger versus assurances of progress or even success, (3) the acknowledgement of the association between the AGs and the "disadvantage" of the students and the disregard and even prohibition of the equalization of school funding, (4) the desire for all students to be "equal," but they have to be dis-aggregated, the (5) injunction of research based instruction practices imposed by an ideology-driven reform policy, (6) we expect equal outcomes by using market forces, which are known to produce a diversity of results, (7) the teacher is a "highly qualified" professional, but also a

functionary of the government, and finally (8) the claim to honor local control and school flexibility versus the unprecedented federalization and bureaucratization of the schools, which is a mirror of the contrast between the desire to establish apparatuses of security in schools and the means to establishing them through regimes of discipline.

DEDICATION

I dedicate this dissertation to all those who lack their sacred and inalienable human rights in the world today and would like to honor the memory of those who have given their lives for the cause of the freedom of expression.

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Hardware resource:

- Texas A&M University Brazos HPC cluster (<http://brazos.tamu.edu>)

Information resources:

- The library of Texas A&M University (<http://library.tamu.edu>)
- The library of the University of Victoria (<http://library.uvic.ca>)
- The U.S. Government Printing Office (<http://www.gpo.gov/fdsys>)
- Education Resource Information Center (<http://www.eric.ed.gov>)
- Google Scholar (<http://scholar.google.com>)
- Google Books (<http://books.google.com>)

Software resources:

- R-project (<http://www.r-project.org>)
- RQDA (<http://rqda.r-forge.r-project.org>)
- tm (<http://tm.r-forge.r-project.org/>)
- L^AT_EX (<http://www.latex-project.org>)
- Emacs (<http://www.gnu.org/software/emacs>)

For details please refer to Section 3.

NOMENCLATURE

AG(s)	achievement gap(s)
AYP	Adequate Yearly Progress
CCT	conditional cash transfer
ESEA	Elementary and Secondary Act of 1965
HBCU	Historically Black Colleges and Universities
IAG	international achievement gap
NAEP	National Assessment of Educational Progress
NAG	national/racial/ethnic achievement gap
NCLB	No Child Left Behind (Act) of 2001
NDEA	National Defense Education Act of 1958
NGO	Non-governmental organization
PISA	Programme for International Student Assessment
RTTT	Race to the Top, part of the American Recovery and Reinvestment Act of 2009
SES	socio-economic status
SQL	Structured Query Language
TIMSS	Trends in International Mathematics and Science Study
USDE	United States Department of Education

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1. INTRODUCTION

1.1 Statement of the Study

The research question can be briefly stated as “what insights in and understandings of the national education policy discourse on the achievement gaps, especially in mathematics, does Foucault’s governmentality offer?”

The concept of the academic achievement gaps is introduced in Subsection 1.2 and developed in Subsection 2.1. Discourse analysis is presented conceptually in Subsection 2.2 and operationally in Subsection 3.3. Michel Foucault’s governmentality is presented conceptually in Subsection 2.4 and operationally in Subsection 3.3.

1.2 Background of the Study

In our contemporary society where universal education has become a reality, the focus of attention has shifted from its availability to its quality. There is a widespread perception in the United States that K-12 public education is not at the level it should be. Such a state is thought to have various negative effects ranging from the narrowing of career opportunities of the students, all the way up to the loss of competitiveness of the nation in an increasingly unforgiving global economy. Many attempts have been made to quantify the quality of education offered in our public schools. From among the several available metrics, such as graduation rate, funding per student, time in school, or educational level of the teachers, it comes as no surprise that the preferred metrics are some sort of test scores, preferably from standardized tests.

These test scores have been aggregated by nation by the International Association for the Evaluation of Educational Achievement¹ and the Organization for Economic

Co-operation and Development.² In addition the scores have been computed at the national level and disaggregated by ethnic and racial group by the National Center for Education Statistics,³ an agency of the U.S. Department of Education. In international rankings, the U.S. places near the bottom of the developed countries. This phenomenon is often called the “international achievement gap” (IAG).

Furthermore, at the national level there are persistent and significant differences between ethnic/racial groups where students of Asian and European descent have significantly higher scores than Native American students and students of African or Hispanic descent. Side by side to these differences in race or ethnicity are the differences in wealth. The effect of disparity in income on educational outcomes is at least as incisive as the previous differences. This phenomenon has been called the “racial, ethnic, income, or national achievement gap” (NAG). Both phenomena have been subject of extensive discussions and research, especially since the publication of the report called “A Nation at Risk” in 1983 (National Commission on Excellence in Education, 1983).

We can make a few initial observations. First of all, the IAG refers mainly to the disparity of the mathematics or science scores in the *Programme for International Student Assessment* (PISA)⁴ and of the *Trends in International Mathematics and Science Study* (TIMSS).⁵ The second category, the NAG has as its most remarkable aspect its stubborn persistence and pervasiveness over all grades, subjects and regions of the U.S. (see H. I. Braun, Wang, Jenkins, & Weinbaum, 2006).

In the literature the IAG can be referred to as the “global achievement gap” (Wagner, 2008), “transnational achievement gap” (Rindermann & Ceci, 2009), or “international achievement differences” (Stedman, 1997). In contrast, the NAG is can be denoted as “race gap” (Bali & Alvarez, 2003), “Black-White achievement gap” (Bali & Alvarez, 2004; H. I. Braun et al., 2006; Levitt & Fryer, 2004), “African-

American/white achievement gap” (Haycock, 2001), “minority achievement gap” (Holloway, 2004), “racial achievement gap” (Lashaw, 2010; Wenglinsky, 2004), “teaching gap” (Berry, Daughtrey, & Wieder, 2009; Stigler & Hiebert, 2009), and “minority-majority achievement gap” (White, Loker, March, & Sockslager, 2009). Usually, when we just refer to “achievement gap”, “student achievement gap” or “academic achievement gap”, the NAG is intended (Balfanz & Byrnes, 2006; Berry et al., 2009; Campbell & Brigman, 2005; Chubb & Loveless, 2002; Cooper & Schleser, 2006; DiGisi & Fleming, 2005; Miranda, Webb, Brigman, & Peluso, 2007; Peevely, 1999; B. Williams, 2003). This can be noted from the following quote by Maloney and Mayer (2010, p. 333)

The phrase “achievement gap” in education and political circles signifies the long-term and steady score gap between white, black, and Hispanic/Latino youth on standardized tests. Using the National Assessment of Educational Progress (NAEP) and SAT scores, researchers have shown that this gap, first recognized in the 1960s, fell by 20% to 40% (depending on the estimate) in the 1970s and 1980s, but then began widening in the late 1990s (Lee 2002; English 2002; Haycock 2001).

However, others such as Downey, Steffy, Poston, and English (2009, p. 1) have a more nuanced view

The first important step to take in confronting the achievement gap problem is to abandon the idea that one single thing, or even a few things in combination, will crack this apparently baffling educational conundrum. And the first factor to confront is that there is no single “achievement gap” but many kinds of gaps. Using a national educational longitudinal

data set, Carpenter Ramirez, and Severn (2006) found “not one but multiple achievement gaps, within and between groups” (p. 120) and “gaps between races may not be the most serious of them” (p. 123).

The international achievement gap is defined and understood in slightly different ways by various authors. The general concept is that there exists a disparity (gap) between the proficiency of the students in U.S. and other countries that are considered its “peers.”⁶

A recent author on the subject, Tony Wagner (2008, p. xxi), defines this *Gap* as the disparity between the “new skills” needed in “today’s highly competitive global knowledge economy” and what the students are taught in class.

A more prosaic understanding of the gap is simply about the ranking of the U.S. in international studies. This is however a very crude way of understanding the issue. Ranking is often misleading because the differences in score points are not statistically significant. For example, as we have already mentioned, the document that in a certain sense started it all, the *A Nation at Risk* (National Commission on Excellence in Education, 1983), was later re-analyzed and much less threatening results were found in the data. According to Carson, Heulskamp, and Woodall (1993) the Simpson’s paradox made several trends appear to go the opposite of their actual direction. This type of paradox occurs when the statistical data of distinct groups are pooled. That is, each group may exhibit a positive trend, but when combined the overall trend becomes negative. Most statisticians are aware of this paradox, but the layperson can easily be fooled by it.⁷ However, according to Stedman (1994) there were still reasons for concern even though the situation was not as dire as generally portrayed. The standardized tests themselves have been subjected to extensive criticisms. For example a simple re-norming would make any

idea of trends meaningless.

The NAG is not a phenomenon that is restricted to the U.S. Public School System. It exists also in private schools even though not much is known about the NAG in private schools. However, it seems that the NAG is narrower in private schools (Coulson, 2005; Neal, 1997). Similarly, little is known about the NAG in home schooling. There again it seems that the gap is narrower if not eliminated (Home School Legal Defense Association, 2001, pp. 4–5). However, we should notice that I was able to find only one citation and that it was not peer reviewed.

1.3 Purpose of the Study

There is extensive literature on the causes and the remedies of the achievement gaps (see Subsection 2.1). I did not intend to add to this crowded field, but desired to approach the subject from a different perspective, namely by performing an analysis of the political discourses at the federal level of this subject.

Thus, the objective of the study was to document and analyze the justifications given by the federal institutions of the United States for governmental control of mathematics education as function of the achievement gaps in mathematics. More precisely, I wanted to shed light on the discourses made in the public arena that have legitimized this control and firmly established in the national conscience that the knowledge of mathematics is essential to the prosperity, nay the survival of the nation.

I was not concerned with whether the above events and phenomena are the manifestations of an actual, real worsening of the situation in schools in the U.S.. I was interested in the **perception** of the health of the public schools by the citizens in general and of the political and economic leadership specifically. Whether a phenomenon is a *problem* or not is but a social construct. Intrinsically nothing is

a problem because a problem is a value statement and thus is historically and socially determined. Furthermore, even if we grant that, e.g., a downtrend in national average SAT mathematics scores is a problem, it still may be a statistical artifact that has only mathematical validity, but does not refer to anything meaningful in the real world. Thus, it could be stated, using Foucaultian terminology, that I am problematizing the problematization of the achievement gaps (see e.g. Gutierrez, 2008; Stumbo, Hill, Ellison, & Price, 2008).

Michel Foucault described problematization as

... not the representation of a preexisting object, or the creation through discourse of an object that does not exist. It is the totality of discursive and non-discursive practices that brings something into the play of truth and falsehood, and sets it up as an object for the mind (quoted in Castel, 1994, pp. 237–238)⁸

Research on the achievement gaps is extensive, and research on the political aspects of the AGs also exists (e.g. Apple, 1992; Payne & Biddle, 1999), but there has been limited research on political discourse regarding the mathematics achievement gap (Ellis & Berry, 2005; D. B. Martin, 2003). Also, very little scholarly research has also been published on Foucault's governmentality and the achievement gaps (Suspitsyna, 2010). Others have utilized Foucault's concepts without making specific reference to governmentality (Hursh, 2007; Klaf & Kwan, 2010; Lashaw, 2010). Ian Hunter (1996, p. 143) about 5 years ago stated that "Foucault's later work has, to date, had relatively little influence on educational research."

The answers to the research question may be of value to the decision makers, the teaching professionals and educational researchers.

1.4 Relevance of the Study

Even though schools teach a wide variety of subjects, the centre of attention has been on the teaching of the English language and mathematics. Both fields of knowledge are considered vital for our national security and prosperity. Of these two subjects the pre-eminent one has been the teaching of English, which is the “unofficial official” language of the nation. The latest wave of immigration into the U.S. distinguishes itself from the previous ones by being less eager to relinquish its native language in favour of English. However, more recent harsh economic realities have shifted the spotlight to the teaching and learning of mathematics. This academic subject is considered to be critical for the formation of a workforce capable of participating and succeeding in a competitive and technologically advanced economic system that now spans the entire planet.

The achievement gap is now an indelible part of the public discourse on education at all levels. Two are the major markers of this phenomenon. The first one is the publication in 1983 of the report *A Nation at Risk* (National Commission on Excellence in Education, 1983),⁹ and the second one is the passing of the “No Child Left Behind” Act of 2001.¹⁰ The topic is closely intertwined with burning issues of the U.S. social life such as de-industrialization, globalization, and what can be called the disappearance of “well-paying jobs” for those having only a high school degree or less.¹¹

A recent example of the popularity of the subject is an article on *The New York Times* by Garfunkel and Mumford dated 24 August 2011¹²

There is widespread alarm in the United States about the state of our math education. The anxiety can be traced to the poor performance of American students on various international tests, and it is now embodied

in George W. Bush’s No Child Left Behind law, which requires public school students to pass standardized math tests by the year 2014 and punishes their schools or their teachers if they do not.

A visual representation of the level of interest in the subject of the mathematics achievement gaps is given by *Google Books NGram Viewer*.¹³ These graphs display over time the frequency of occurrence of certain words or word groups in the corpus of U.S. books. Figure 1.1 shows the trend of occurrence of the bigrams “math education” and “achievement gap” and Figure 1.2 shows the same for the bigram “global competition”. It is obvious that these subjects have become more and more popular since the 1960s.

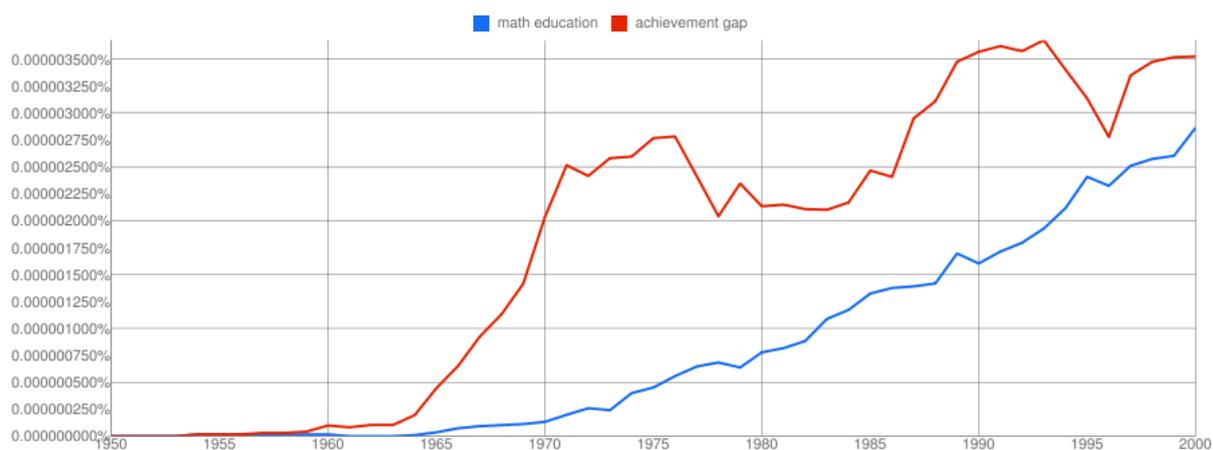


Figure 1.1: Frequency of “Math Education” and “Achievement Gap”

If I had describe in a nutshell my study, I would state that it is but a commentary on *The Republic* of Plato focused on the following two statements¹⁴

[525bc] Then this is a kind of knowledge which legislation may fitly prescribe; and we must endeavor to persuade those who are prescribed to

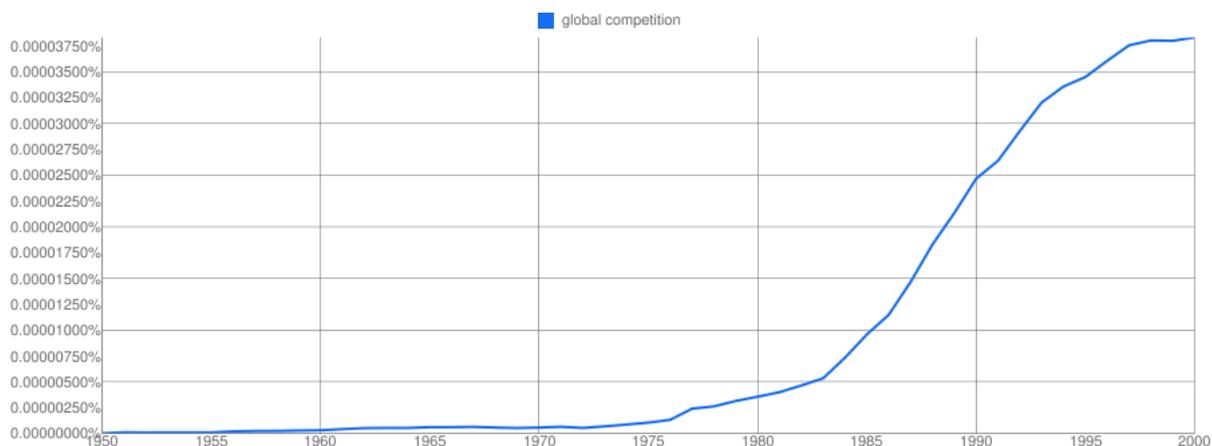


Figure 1.2: Frequency of “Global Competition”

be the principal men of our State to go and learn arithmetic, not as amateurs, but they must carry on the study until they see the nature of numbers with the mind only; nor again, like merchants or retail-traders, with a view to buying or selling, but for the sake of their military use, and of the soul herself; and because this will be the easiest way for her to pass from becoming to truth and being. (Book VII)

[405a] And yet what greater proof can there be of a bad and disgraceful state of education than this, that not only artisans and the meaner sort of people need the skill of first-rate physicians and judges, but also those who profess to have had a liberal education? [405b] Is it not disgraceful, and a great sign of want of good-breeding, that a man should have to go abroad for his law and physic because he has none of his own at home, and must therefore surrender himself into the hands of other men who he makes lords and judges over him? (Book III)

We will see how politician today still see the importance of the study of math-

ematics for economic purposes, “buying or selling”, and national defence, “military use.” The second passage of the *The Republic* resonates with the clarion call of those who lament the “disgraceful state of education” that puts the economy and standing of the United States in danger.

As we will appreciate during the analysis of the policy data, a large part of the discourse is about the funding of public education. In Plato’s *Laws*, immediately after the regulations of the markets, he stated

It will be proper next to appoint officials for music and gymnastics, two grades for each department, the one for education, the other for managing competitions. By education-officers the law means supervisors of gymnasia and schools, both in respect of their discipline and teaching and of the control of the attendances and accommodation both for girls and boys. [764cd]

Even though funding is but one of the levers that the federal government has, it is an important one because it shows a concrete commitment and involvement of political power. Schooling, be it public or private, requires significant financial resources. Functioning schools need money for, among others, teachers and staff payroll, premises, sports fields, buses, books, furniture, cafeteria and office supplies, musical instruments, computers and software, and gym equipment. As I have previously mentioned, today in the U.S. its citizens generally consider it normal that, in one form or another, society has to provide all this money so that all residents in the country have access to free and universal education from kindergarten to 12th grade. In addition, as reported previously, the U.S. is very generous in its public support compared to most other countries in the world.

The federal budget by definition is limited, even if in the case of the United

States still very large (Hanushek, 2009, p. 50). This engenders fierce competition for resources between federal departments, agencies, programs and grants. The outcome of this process of allocation depends on the relative influence and authority of competing constituencies. The primary and largest items in the federal budget are defense, Medicare & Medicaid, and interest on the federal debt. That ensures that the competition for the remainder of the budget be intense. Education has to compete with infrastructures, environmental protection, international assistance, law enforcement, block grants, R&D, and a whole host of other interests.

The battle field for this struggle for funding is the public mind. The sphere of public discourse where attention has to be sought by the use of more or less cogent logic and by the appeal to certain sentiments that are more or less noble.

So, how has the teaching of mathematics fared in this competition for funds? Why would a government allocate any money at all to this task, what are the justifications for it in the public discourse (see e.g. Doherty, 2006, p. 51).

The teaching of mathematics is in a peculiar situation. Few school children would choose to study it if they were free to choose. Many adults would be of the same opinion and consider themselves deficient in mathematics. Basically it is a field of knowledge that few are interested in and knowledgeable about. It is rare that even one of the parents is able to help their children with high school mathematics homework. On the other hand, mathematics along with English is the most frequently tested school subject. It is in **all** standardized tests: SAT, ACT, GRE, etc.¹⁵ It is with English a measured subject in the “No Child Left Behind” Act of 2001.¹⁶

Literacy and numeracy have been considered valuable fields of knowledge since ancient times. However, the learning of reading and writing has always been the primary and often the only skill that was taught. The learning of mathematics

was considered much less important than the learning of one's mother tongue and the *lingua franca*.¹⁷ Often the teaching of mathematics was considered unnecessary for the normal students and reserved for the elite. Moreover, when the learning of mathematics was enjoined it was for reasons far from today's concerns. As we have seen in the previous, Plato considered the mathematics of "merchants and retail-traders" a form of knowledge inferior to that which was required of the military and state leaders, who should "study until they see the nature of numbers with their mind only" (*The Republic* 525bc). This attitude towards mathematics lasted until recent times and can still be recognized in the educational polemic called *The Math Wars* (e.g. Latterell, 2005).

This study tries to understand the reasons given for the allocation by the government of large amounts of money for mathematics education as well as the centralization of the control over the educational process. Both functions are not prescribed in the U.S. constitution. Neighbouring Canada does not have a federal education department and public schools are regulated at the provincial level. But in the U.S.A. education is regulated at the federal, state, and local levels. Why is there this extra layer of government? From the founding of the nation, education has been understood as a local activity in which parents would have preponderant, if not total, control. The first person known to have written on the public support of education was the Greek philosopher Plato. He presents his ideas on the instruction of children and young people in *The Republic* (380 BCE) and *The Laws* (355-347 BCE).¹⁸ There he affirmed the importance of the support by the state for the study of certain subjects. The justification for this financial support is that this kind of knowledge, at least among the ruling elite and military officers, is of vital national importance. Of course, it should be noted that in the Greece of that time the nation was equivalent to the city-state.¹⁹

It should be noted that the socio-political program envisioned by *The Republic* was never implemented in the Greek world. It might even have been intended as an impossible allegory of what should be, but could not be. It took many years for the idea of public support for schools to become reality.

Once this idea was accepted by society, it became more and more pervasive and it is inconceivable today to reverse its course.²⁰ Even the most conservative of politicians, who would abolish the public school system, still advocate for some type of financial support, e.g. vouchers. All recent presidents and presidential candidates, governors and gubernatorial candidates, senators, congress members and so on, have made sweeping statements in support not only of public funding for education, but also to increase its level. The situation today is that the funding per K-12 student in the U.S. is among the highest in the world (OECD, 2009, 2010).

By studying how society came to value the teaching of mathematics from total neglect to its privileged position today, I believe that we can obtain insights in the relevance of today's mathematics education and for its central place in school curricula.

It has been noticed with dismay by many that none of the many educational reforms in education in general, and in mathematical education in particular, have ameliorated the supposedly dire situation in the nation's classrooms. Many have tried to untangle the many possible reasons for these failures and a wealth of reforms, remedies, corrections, improvements, and changes have been proposed. I certainly do not pretend to have the right answer, or even **an** answer. I do however intend to offer this study as a means to look at the problem from a different viewpoint. I hope that its reading may spark some insight, some original way of examining these complex issues.

Some think that the school system, especially the **public** school system is apart

or above politics. That it is an impartial system where all have the same opportunities. That it is a quintessential democratic, non-elitist, and egalitarian institution. However, many have realized that this is not the case. During an interview of Michel Foucault and Noam Chomsky,²¹ Foucault said the following

But I think that the political power is also exerted by a few other institutions which seem to have nothing in common with the political power, which seem to be independent but which actually aren't. We all know that the universities and the whole educational system that apparently are supposed to distribute knowledge, we know that the educational system maintains the power in the hands of a certain social class and exclude the other social class from this power.

A more extensive commentary on schools was given by Pierre Bourdieu during an interview given in 1991.²² I translated some parts that I consider relevant to the issue of the national achievement gap²³

PB: For example we can observe that the inequality in school achievement cannot be completely explained by economic (financial) inequalities. Thus I had to invent a concept and call it "cultural capital." That is the concept that we inherit from our family not only material means but also instruments of knowledge, of expression, of "savoir faire," modes and manners of work, for example, that are unconsciously transmitted by the family and that contribute enormously to the academic success. That is because the school system requires without giving them to the students. A simple example is work skills. I think that one for the greatest advantages of the children of intellectual categories in addition to that they hear in their families a language that is close to the language

that is spoken in school, and that the school requires, is the fact that they have an attitude of relationship with culture very close to what is required in school and the fact that they receive from their families indications and encouragements concerning work and time management. These things that apparently are of little importance, almost nothing, in reality are among the decisive factors that differentiate. It is the art of work. Schools give very little of this, because they do not have the time, and also because the teachers do not realize its importance. The majority of the teachers are not aware that that is what is lacking.

DB: The schools itself requires from the non-schooled.

PB: Clearly, that is one of the extraordinary paradoxes that I have indicated in the first book that I have dedicated to education. This is a teachers note in the margin of a page (student essay), which is hideous even though you do not think about it. A teacher who wrote on the margin: “scolaire” (unimaginative, unoriginal).

That means that the school system does not value what the school system itself transmits. It requires something else. It does not consider sufficient what it gives.

But if we say: this is the product of historical and social conditions such that you did not have easy access to the language that the school system requires.

We could obtain the idea that this system has intentions, that there is an evil will, a kind of evil, diabolic, perverse genie. The worst is that these

social mechanisms do not have a “will”, they do not have a “subject” (des mchanismes, non des volontes). There is no conspiracy. Unfortunately one of the wrong ways to understand sociology is to transform the analysis of the mechanisms into an analysis of will.

We say “it is the dominant class that eliminates...” That is a mistake that even sociologists make and those I criticize. They say “the school eliminates.” That is not true. It is the logic of the functioning of complicated mechanisms, there exists an unconscious in those mechanisms that determines that an certain kind of children are not by chance more eliminated than others.

School reforms fail because we look for those who are responsible, who are culpable. In reality there are differential responsibilities that are most often responsibilities inscribed in the structures in a complicated manner that are above the capacity of the agents. That does not mean that The agents are not capable of doing something. By becoming aware they can oppose these mechanisms, avoid to unconsciously serve them (Connaitre ce mchanisme et en enayer l’fficatit).

The effort I devoted to this research was inspired by the statement of Michel Foucault “To change something in the minds of people—that is the role of an intellectual.” (R. Martin, 1988, p. 10).

Summarizing, in this study I try to develop into narratives certain aspects of the national policy discourse related to education. When a nation bases its prosperity and future on technology, it will elevate the teaching of mathematics to the level of national priority due to its efficacy in the preservation and enhancement of its national sovereignty. The knowledge of the national language is necessary for internal

cohesion and the survival of the culture, while the knowledge of mathematics is essential for its survival as a nation in a global economic environment where commerce, finance, and technology are vital.

Thus it is evident that there is a ‘connection’ between the state of mathematics education and some social and cultural conditions in the U.S.. However, I dispense with any pretension of being able to explain the historical phenomenon “the policy of mathematics teaching” by any attribution to specific causal mechanism(s). The difficulty of establishing causality does not imply that causality does not exist. However, attribution of causes in history is usually more an indication of the historian’s political and ideological ideas than any reference to the discovery of any actual causal agent that connects without any solution of discontinuity the events and at the same time also completely exhausts all effects and influences of a particular historical event.

We all are aware that if we ask the apparently simple question such as “what is the cause of homelessness in the U.S. today?” we obtain all sorts of answers. Usually we will be able to discern a pattern between these answers and political opinions. Moving to a subject closer to our theme, let us ask “what are the causes of the lack of satisfaction of mathematics teaching in the public schools of the U.S. today and how is it determining the policy discourse?” As we will see later, it may be for some simply a lever to employ to further certain reform objectives. Among the causes of this uneasiness I identify the emotions of fear and pride. I understand these emotions to operate at various levels, starting with the fear for the welfare of one’s offspring (see e.g. Wagner, 2008, p. xiii and Demerath, Lynch, Milner, Peters, & Davidson, 2010), to the fear of the survival of one’s nation (see National Commission on Excellence in Education, 1983, Lagana-Riordan & Aguilar, 2009, and Kovacs & Christie, 2008 as well as Kenway, 1990 for Australia).²⁴ The basic emotion of fear

is related to the higher emotion of pride. In this situation it could be the feeling of being a good parent, the gladness of knowing that their children will be successful, and at a higher level of social aggregation, the knowledge that their nation is the greatest one on earth, the envy of all other countries.²⁵

1.5 Research Position and Strategy

A policy discourse analysis research project, due to the nature of its data, has to be eminently qualitative. However, recent advances in text mining allow the researchers to avail themselves of a measure of quantitative analysis. My research paradigm can from a certain point be considered post-positivist (Creswell, 2007, p. 20). During the research process I employed “a series of logically related steps” and “employ computer programs to assist in ... analysis ...” (p. 20). However, the analysis proper of the processed data was framed according to a postmodern perspective. Even though Foucault never claimed to be a postmodern or even post-structuralist scholar (Cheek, 1999, p. 22) his historical analysis methodology shares many postmodern aspects. A postmodern perspective is characterized by “a skepticism of meta-narratives” and the desire to “deconstruct” narratives to bring “to the surface concealed hierarchies as well as dominations, oppositions, inconsistencies, and contradictions” (Creswell, 2007, p. 25).

Foucault has provided several investigative tools such “archeology” and “genealogy” in his published works (Scheurich & McKenzie, 2005). In unpublished work he spoke and wrote about “the care of the self” and also “governmentality”, the framework that I have chosen for this research project. I think that one of the aspects that makes the choice of governmentality as a framework so interesting in the study of education policy is that the theory brings to light the *mentality* of the phenomena under examination. The principles of governmentality state that the form and

modes of government are in their essence unnatural, to a certain degree arbitrary, and in their totality a product of historical contingencies. I found it stimulating to attempt to look *from the outside in* and to try to transcend the conventional level conversations in education. For example, one level of analysis would determine the pros and cons of a certain type of teacher certification or the process by which a math curriculum has to be developed. However, a deeper level of analysis asks why teacher certification is important in the first place and why certain alternative choices are present and why others are not and how choices are evaluated. It also asks who is speaking about these decisions and who makes the decisions. How are these decisions influenced and negotiated and to which rationalities and sentiments are the participants of this discourse making an appeal to?

1.6 Organization of the Study

As we have seen in the previous section this study is primarily qualitative and secondarily quantitative. In addition the chosen theoretical framework is the “theory” of governmentality of Michel Foucault. As we will see in Subsection 2.4, governmentality is not a complete theory. Foucault died before completing a monograph on this subject, unlike his books on “archaeology of knowledge,” (Foucault, 1969), “genealogy of knowledge,” (Foucault, 1975, see Scheurich & McKenzie, 2005), and the “care of self” (Foucault, 1976, 1984a, 1984b). It is best not to rely on more than one theoretical framework. While there may be many overlaps, there are also differences in outlook, philosophical presuppositions and methodologies that would have made the use of more than one framework problematic. Even though diverse researchers in the social sciences can contribute to our political discourse analysis, I consider the concepts of *governmentality* by Michel Foucault the most productive one (Burchell, Gordon, & Miller, 1991; Dean, 1999; Hook, 2005; Peters, Besley,

Olssen, Mauer, & Weber, 2009). This approach will be discussed in the methodology section (Section 3).

I would also like to make a historical comparison that I find illuminating. History does not repeat itself, but parallels and comparisons can be made that will give us some insight into a contemporary situation. In my opinion, the emotional state of the French people and as well as its government after the disaster of the Seven Years' War²⁶ presents interesting correspondences with the contemporary United States. I do not refer to the Vietnam War²⁷ or even the attack of 9/11.²⁸ Those two disasters have never been related to the mathematical or scientific knowledge of the U.S. population. On the contrary, the tragic loss of manufacturing jobs and the abyss of the trade deficit have been connected, among many other factors, to the perceived inadequate mathematical and scientific education in the public schools. Similarly, the technological inferiority of the French artillery and the mathematical ignorance of its artillerists were considered to be the main causes of the humiliating defeat of France. Other interesting historical parallels that have to bear are that both the France of the 17th century and the U.S. of today were considered to be the most powerful nations on earth and that both combine great national wealth with horrendous federal budget deficits.

A possible critique of my approach is the realization that any claim of causal relationship in history and sociology has to face the objection that due to the complexity of the forces in play any explanation can be sustained, and is thus in ultimate analysis meaningless. Even today we are still debating the "real" cause of the fall of the Roman Empire. In addition, any appeal to a emotions is vapid because emotions drive all human beings to perform many different actions and make many discordant choices.

I certainly agree. However, my intention was not to prove a phenomenon in a

scientific, experimental sense. Rather it was to navigate through the documents of federal educational policy and history of education to study the motivations, be they openly stated or uncovered by analysis and generate interpretative narratives. I attempt to understand what social, economic, military, and political conditions made those in power decide to legislate the teaching of mathematics and to increase the amount funding and regulations. The distribution of the federal budget is a ‘zero sum game.’ The decision to give money to any program or agency can only occur when the discourse that supports it becomes intelligible. When certain practices, intentions, and desires become part of the public sphere to become tacitly and implicitly part of the ‘normal’ functioning of society.

What will also become apparent from the analysis of the political discourse is that in parallel to the expansion of the federal share of the education budget is the centralization of the control of education. There is a clear historical trend from local to state to federal control. Its significance should not be underestimated because this trend contravenes a political principle that is heartfelt among U.S. citizens, **local control** of public affairs. We should not forget that this issue was one of the key points of contention in the U.S. Civil War.

I used as guides some studies in education that were performed using the Foucaultian concepts of *archaeology* and *genealogy*. Mainly Knight, Smith, and Sachs (1990) who presented their “critical appreciation of official state policies” concerning school curriculum in Australia; and Kenway (1990) who studied how certain political forces “have all but colonized popular thinking and government policy on education in Australia.” A more recent study of this type in mathematics education was performed by Popkewitz (2004). However, I made great use of research on governmentality analysis in education such as by Doherty (2006), Suspitsyna (2010) and Goddard (2010).

2. LITERATURE REVIEW

2.1 Introduction

The purpose of this section is to review the published academic research that was relevant to the research question, the analysis of the policy discourse at the federal level of the academic achievement gaps in K-12 public schools, with special emphasis on the mathematics achievement gap. To focus and direct this literature analysis I have conceptualized the review process as a convergent process that started with the academic achievement gaps in general (Subsection 2.2), then restricted the review to specifically the discourse analysis of the AGs (Subsection 2.3) in one direction and also narrowed it to the discourse analysis of the policies that relate to the AGs (Subsection 2.4) in another direction. These two lines of analysis converged to the review to Foucault's governmentality as applied in education policy analysis (Subsection 2.5). This process can be visualized by traversing a Venn diagram as shown in Figure 2.1 (p. 24).

I used the online digital library of the Education Resources Information Center (ERIC) of the U.S. Department of Education.²⁹ Figure 2.1 shows in the blue boxes the keywords used for the literature searches and in the red boxes the relevant subsections.

The objective of (Subsection 2.2) was to perform a general review of the literature on the academic achievement gaps, both national and international, in the U.S. public education system that included mathematics education. In the following subsection (2.3) I intersected the previous search with the research of education discourse analysis (DA) of the AGs. That is, I selected only research papers that included **both** references to the AGs **and** DA. The objective of the successive sub-

section (2.4) was to review papers that researched the AGs **and** educational policy. The initial objective of the last subsection (2.5) was to present the results of the literature review for governmentality and the AGs. However the database search for these two terms did not yield any result as can be seen in Figure 2.1. Thus, I reviewed education research papers that discussed both governmentality and policy analysis that I considered relevant to the research question.

In addition, in this section I provided paragraphs where I summarized the concepts and findings relevant to later discussion and I ended this review with a final concluding short “subsection” where I try to condense the main points of the literature review.

2.2 The Achievement Gaps

In Subsection 1.2 I started to present the academic literature on the academic achievement gaps (AGs). Here I expand on that presentation. A vast amount of literature exists on the achievement gaps, be it on mathematics, science, or reading, and for both national (NAG) and international gaps (IAG). I performed an ERIC EBSCO³⁰ database search on 3 August 2012 and restricted it to peer reviewed academic journals. A search for “achievement gap” as descriptor yielded 543 results. Adding the term “mathematics” to the search reduced the yield to 128 papers.

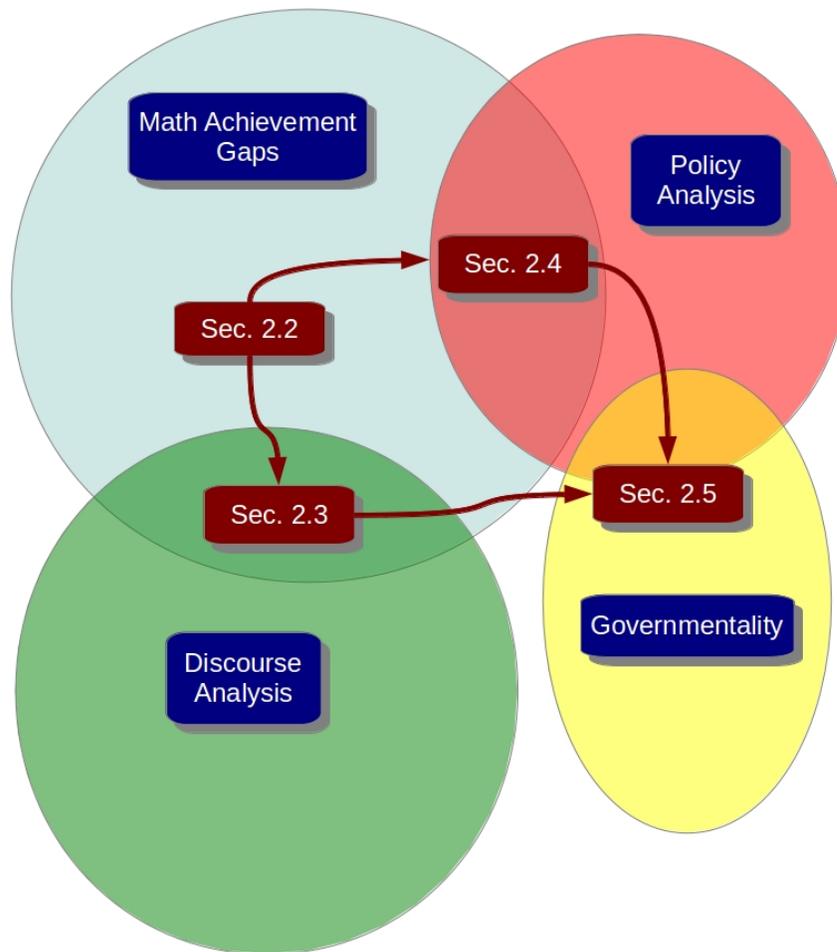


Figure 2.1: The Literature Review - Relationships between Searches and Review

Among the 128 search results I obtained studies about non-US educational systems, non-K-12 grades, studies on the gender achievement gap (GAG) and the disabilities achievement gap (DAG). They were not included in the present review because it is outside the scope of this study. In the U.S. the gender achievement gap is no longer at the forefront of the political discourse, and is indeed only significant in higher level mathematics and science courses in the public K-12 school system. However, the disability achievement gap is often mentioned in the political discourse although primarily in accountability situations (see Subsection 7). Similarly, this problematic is outside the scope of this study. In addition I did not take monographs into account in this review. Hence, the number of papers that were left after these eliminations were 69.

Table 2.1: Dimensions of the Studies on the Achievement Gaps

Dimension	Examples
Comparison	geographical, SES, ethnic, gender, public/private, mental or physical abilities, . . .
Type of study	description of phenomenon, statistical analysis, causes: social, equity, class, school, teacher, policies, . . . instructional remedies, policy remedies, . . .
Academic subject	general, mathematics, science, language arts, . . .
Time	absolute, with reference to reform or academic program, longitudinal or cohort studies, reference to “era”

I began by classifying this large body of literature by using four dimensions (Table 2.1). The first dimension regards the type of comparison such as between nations, urban/suburban/rural, racial/ethnic, or income class. The second dimension regards the academic subject, usually mathematics, science, or reading and composition. The

third dimension pertains to type of study such as the description or the causes of an AG, its academic or policy remedies, and so on. The fourth dimension is the time parameter that allows us to analyze how the research interests and focus have changed over time. Graphically it is impossible to present four dimensions at the same time. Thus, I have collapsed the dimensions into only two axes with a few categories as can be seen on Table 2.2. The National and International Achievement Gaps are divided into a General and a Math plus Science categories. The “general” category collects both papers where the subject is not specified and papers where more than one subject, usually mathematics and reading, but not mathematics and science, is studied. I am listing those last two subjects together because this so often happens in the literature, public discourse and also in TIMSS itself. Each cell in the table contains the number of literature references that I discuss in this subsection. On the second axis of the matrix I have grouped all topics of analysis into the two broad categories of “description and causes” and “remedies, instructional or policy.”

Because of the focus of this research on educational policy, literature concerning policy studies is discussed separately in Subsection 2.4.

Table 2.2: Categorization of the Achievement Gaps and Number of Citations

	NAG-G	NAG-M/S	IAG-G	IAG-M/S
Description and Causes	26	20	0	5
Remedies - Instructional or Policy	7	10	0	1

The content of each cell corresponds to a list where the references are listed in

chronological order to represent the time dimension. Public and private entities have also produced a cornucopia of journal and newspaper articles and reports. A part of them will be considered in the discussion of the results in Subsection 5.

As can be appreciated in Table 2.2, most of the research has been performed on the description and causes of the AGs in general.

Most of these studies try to identify the causes of the underachievement of African American students. Among these studies are Chambers (2009) who detected a “differential treatment by school personnel as early as elementary school.” (p. 1) The study by Rowley and Wright (2011) based on the Educational Longitudinal Study of 2002 confirms the Black/White gap, but also makes the statement that among its causes is “discrimination based on race.” (p. 1) However, the paper itself does not offer any substantiation of racial discrimination, but rather points to the inequity of the U.S. public schools system. This is an almost unique U.S. phenomenon based on the preponderance of local funding of the schools in the United States.

A relatively recent trend in AG studies is the focus on Hispanic students. The term Latino/a is also used. Among those studies are Reardon and Galindo (2009), Heilig, Williams, and Jez (2010), and Madrid (2011). Gill (2011) conducted a study where both ethnic groups, Black and Hispanic, were taken into consideration. The author did not find any statistically significant difference in the Virginia “Standards of Learning” scores between those two groups, but either of those groups were statistically different from the White students.

An additional item on the topic of study dimension is the socio-economic status of the families (SES). However, Condrón (2009) studied both and found surprisingly that schools widen the Black/White disparities, but narrow the social class gaps. He concluded that school factors affect the racial AG and non-school factors drive the income AG. The same type of result was obtained later by Burchinal et al. (2011)

using a longitudinal study of elementary school students.

Among the studies about the causes and descriptions of the AGs a topic of research is the **size** of the school or the classes (McMillen, 2004). There is a policy aspect to the size of schools and classes because it is determined by policy and funding. McMillen (2004) stated that

... the number of public schools serving the secondary grades in the U.S. has largely held steady between 23,000 and 26,000 since 1930. During that same time, however, the number of public high school students in the U.S. nearly tripled, from approximately 4.4 million to over 13 million. As consolidation trends have created larger schools, the issue of school size has become of great interest to educators and policymakers alike.

Cultural aspects of the AGs were discussed by Adams (2005), Cholewa and West-Olatunji (2008), and Demerath et al. (2010). These researches discussed the AG in light of the “wave theory.” The first wave is the primordial hunter-gatherer culture, the second wave consisted of the agrarian civilization, the third one the industrial, and the last one the post-industrial society. The author noticed how in a fourth wave society, such as the U.S.A. of today “Advanced literacy and numeracy skills are absolutely essential for competing within the 4th wave workforce.” (p. 15) Adams (2005) showed how differences in habits between racial/ethnic groups impact academic success, such as hours spent watching television, time dedicated to homework, and parental expectations.

The gap between the culture of the teachers, European, and those of who do not share this culture creates what Cholewa and West-Olatunji (2008) called “cultural discontinuity.” (p. 1) The authors considered this phenomenon to be major cause of the achievement gaps. A different approach is taken by Demerath et al. (2010)

who pointed out that “we need to decode success, rather than continue the autopsy of failure.” (p. 2937, citing Hilliard, 2002). The authors have analyzed how middle and high-class parents with their children are able to extract from schools the best they have to offer to better compete in society.

A more focused analysis of the various immigrant groups was performed by Han (2006) who took into consideration the number of generation after immigration as well as the ethnic origin and concluded that “Child and family characteristics were the most important factors to these [immigrant family] young children’s academic achievements.” (pp. 313–314) Basically, some ethnic groups scored higher (e.g. East Asian) than the U.S. average, while others (e.g. Mexican) scored lower. Schwartz and Stiefel (2006) found similarly that the country of origin was important. For example Russian children scored above average and children from the Dominican Republic scored lower. However, on average immigrant students did better than native students in New York. Konstantopoulos (2009) performed a rigorous correlational statistical analysis of the achievement of Asian American students and confirmed what is considered common knowledge. The Asian-White AG is clearly in favour of the Asian American students, even though it is smaller in reading than in mathematics. However Pang, Han, and Pang (2011) showed in their study of this group of students in California that we should not consider all Asian American students as a homogeneous block, but rather need to dis-aggregate between sub-groups. Briefly, the Asian Americans can be divided into a group of above average achievers, corresponding to North East Asians (Chinese, Koreans, and Japanese) and South East Asians (Filipinos, Cambodians, Pacific Islanders, etc.) who achieve below average. Some studies on the achievement of immigrant students are even more granular. Simms (2012) studied the effect of educational selectivity of the parents. This term denotes how the education level of the parents compares with the average

in the country of origin. The author found that educational selectivity had more explanatory power than SES. Related to immigration is the issue of language that, not surprisingly, has an effect on achievement (Han, 2012). The author describes how mixed bilingual students were able to close the AG, but non-English dominant bilinguals and non-English monolinguals did not. Halle, Hair, Wandner, McNamara, and Chien (2012) studied the effects of the grade at which English proficiency was attained and the AG. The sooner that the parity was attained, the sooner that the gap was narrowed or closed.

A minor, but still important, area of research is the comparison between public and private schools. Usually the private schools are Catholic because they are (1) a large system, and (2) unlike most private schools, not for the nation's elite but for all groups of students. Hallinan and Kubitschek (2010) is an example of this kind of study. The authors compared Catholic to public schools in Chicago with regards to the influence of poverty on student achievement. This study showed, not surprisingly, that poverty hampers achievement, but that this effect was mitigated in Catholic schools.

Some studies are fairly technical and critique the statistical measurement of the AGs themselves. For example Verdugo (2011) studied the effect of dropouts on the AGs. Because generally the academically weakest students are those that leave the school systems, the achievement scores looked better than they actually were.

Considerable research has been done on the description or causes of the mathematics AG (Table 2.2).

The typical study of this type involves detailed statistical analysis where several factors are considered, race/ethnic group, SES, parental involvement, teacher, class and school size, and knowledge of English. See Chatterji (2005), Berends, Lucas, and Penaloza (2008), Long, Iatarola, and Conger (2009), Shores, Smith, and Jarrell

(2009), Kieffer, Lesaux, Rivera, and Francis (2009), Dunn and Allen (2009), Berends and Penaloza (2010), H. Braun, Chapman, and Vezzu (2010), Georges and Pallas (2010), Abedi and Herman (2010), and Riegle-Crumb and Grodsky (2010).

Among the most interesting type of statistical analysis is the longitudinal study. The efficacy of NCLB on the closing of the AG was tested by H. Braun et al. (2010) who found a modest impact.

Berends and Penaloza (2010) had an historical dimension in their study of the AG and showed that between 1972 and 2004 the mathematics Black-White and Latino-White AGs increased. The authors impute this phenomenon to the increase in school segregation during that period.

Kelly (2009) studied the mathematics course taking of Black students and found that they are disproportionately enrolled in lower-track courses. This difference could not be completely explained by individual or family factors. Similar results were found by Long et al. (2009) in a study that focused on the need of remedial mathematics courses in Florida in relationship to the number and level of math courses taken in high schools in that state.

Some studies focused on the teachers and their effect on the mathematics scores. Hines (2008) found that students of teachers with low self efficacy had lower mathematics test scores. In addition Desimone and Long (2010) found that students with lower achievement would have teachers who spent less time on instruction. On the other hand, Georges and Pallas (2010) found that teaching practices had little influence on mathematics scores and at any rate had uniform effects for all students.

J. Lee (2012) studied the effects of the AG on the possibility of obtaining 2- or 4-year post-secondary degree, finding “large disparities between actual and desirable math achievement levels for college readiness at the national level.” (p. 52)

While most research is focused on the problem of mathematics AG, a few studied

successes such as Stinson (2008). The author did a participative study with four African American male students who were academically successful in mathematics.

The mathematics AG is often associated with educational inequity (Hines, 2008; Long et al., 2009).

The social aspects of the mathematics AG were stressed by Elsa Ruiz (2011). The author discussed based on personal experience the importance of motivating Latino students in Algebra I. Most of the ELL-students in the US public schools system are Latinos. Thus the cultural and the linguistic issues are often connected. Several studies have targeted the relationship between the language skills of Latinos and their mathematics AG (e.g. Abedi & Herman, 2010).

The on-line search did not yield any papers that I classified as International AG - general subjects. Two reasons may be (1) the way that I set up the search, and (2) most important international studies are TIMSS and PISA. Multinational studies such as the “Progress in International Reading Literacy Study” (PIRLS)³¹ are not as popular.

The most popular type of research on the subject of IAG is the statistical study of data from TIMSS (Chudgar & Luschei, 2009; Heuveline, Yang, & Timberlake, 2010; Wang & Zhu, 2003), or PISA (Perry, 2009). Often hierarchical linear modeling was employed for TIMSS data (Heuveline et al., 2010; J. Lee & Fish, 2010).

An interesting statistical study was performed by Chudgar and Luschei (2009) who looked at both differences between countries and within countries with respect to SES of the families. In most cases the schools are less important than the family situation in explaining student achievement. Similarly, J. Lee and Fish (2010) found that the international gap is due to school factors, but family factors explain differences between states in the U.S..

Perry (2009) did an in-depth statistical study that focused on equity and found

the following results that have interesting policy implications: (1) Academic selectivity in school admittance policies in compulsory education is strongly associated with inequitable outcomes, but not necessarily overall performance. (2) Selective schooling does not always reproduce social status. (3) high levels of privatization and choice are not necessarily incompatible with educational equity, although they may diminish it. (4) Income inequality within the larger society does not appear to be strongly associated with equitable student maths achievement in OECD countries.

Heuveline et al. (2010) studied the relationship between family structure and mathematics achievement. As expected, single parent children scored lower. However, in the U.S. this gap was larger than in 13 other countries.

Several projects were implemented with the primary or secondary aim to reduce or even eliminate the AGs. These were implemented at various levels, single school (Beecher & Sweeny, 2008; Bruce, Getch, & Ziomek-Daigle, 2009), school district (Burris, Wiley, Welner, & Murphy, 2008; Lopez, 2010), and even larger geographical size (Konstantopoulos & Chung, 2009; L. Smith, 2012). What is common to all these successes is the requirement of a considerable amount of resources, the adoption of interactive whiteboard technology (Lopez, 2010), a complete restructuring of a school Beecher and Sweeny (2008), group counselling (Bruce et al., 2009), more advanced classes such as International Baccalaureate (IB)³² courses (Burris et al., 2008), class size reduction (Konstantopoulos & Chung, 2009), and summer programs (L. Smith, 2012).

The main objective of NCLB was to eliminate the AGs. J. Lee and Reeves (2012) performed a longitudinal statistical study using hierarchical linear modelling of NAEP data to determine the impact of NCLB on the reading and mathematics AGs. Their results were in line with the previously mentioned research in that school resources were more influential than the instruments of the reform law, accountabil-

ity, data tracking, and standards. This paper has policy implications and will thus be re-examined in Subsection 2.4.

Can instructional practices reduce the mathematics or science AGs? That is, can we and by how much can schools reduce these gaps? To answer this question (Wenglinsky, 2004) performed a hierarchical linear modelling study on a national sample. He found that instructional practices could make large differences even after the personal background of the students was taken into consideration. Similar results were obtained by Clarke et al. (2011); Crosnoe et al. (2010), by Santau, Maerten-Rivera, and Huggins (2011) in science, and by Boaler and Staples (2008) in California. Other types of school intervention have been tried with success, such as “ethnic matching” of African American students with African American teachers (Eddy & Easton-Brooks, 2011).

However, supplementary programs were also found to have a positive effect (S.-Y. Lee, Olszewski-Kubilius, & Peternel, 2009). Similarly, the use of computers is both a school as well as extra-school activity and again was able to narrow the mathematics AG according to a national longitudinal study (S. Kim & Chang, 2010).

With the relatively recent influx of immigrants with low English language skills, often a strategy used in the closing of the mathematics AG is to act on the English language skills, after all almost all standardized tests are written in English (S. Kim & Chang, 2010; Santau et al., 2011). Sometimes teachers receive ELL training or use special instructional practices targeted to ELLs (Pray & Ilieva, 2011). As we will see later NCLB provides exclusions and deferrals for English language learning (ELL) students.

Alson (2006) presents a personal case study, which however interesting has the limitation that it is not reproducible, even though most studies in education at a certain level share this limitation.

It seems that very few programs have been implemented to narrow the IAG. Tabernik and Williams (2010) studied the effect of teacher professional development in Ohio on the international mathematics achievement gap.

Subsection summary

Thus, as we have seen here, if we divide, “dis-aggregate,” the student body in the U.S. public schools system according to income level we can notice that on any metric the average achievements are dramatically different. The same differences can be seen if we dis-aggregate according to certain, **but not all**, distinctions in historical background of the students.

Certain researchers claim that a major cause of the NAG is to be found in the structure of the school system and the culture of its faculty. Among the structural problems the funding inequity is an often cited cause. Others have studied extra-school factors such as income and culture and a lively debate exists whether in-school or extra-school factors are more influential. We will see in the next subsection (2.3) that these two positions have been called “structure” and “culture.”

What appears from the review of this body of literature is that the issue of the AGs is inherently very complex and that many factors interrelate in an intricate fashion. It defies any attempt at generalizations and any claim of having found “the cause” or even “the remedy” should be regarded with great suspicion. Such a pronouncement is may be the product of a personal ideological outlook rather than a dispassionate, cold analysis of the data.

2.3 Discourse Analysis of the Achievement Gaps

This is not the place to present a complete literature review of discourse analysis (DA), not even restricting it to educational research. It simply would be too vast and not even relevant to this investigation. Thus, as I have mentioned in the introduction

(Subsection 2.1), I have here limited the literature review to the discourse analysis of the achievement gaps.

An on-line database search for “discourse” and “achievement gap” as descriptors among peer reviewed publications yielded 38 results. I removed those articles that were not U.S. based studies, not K-12 studies, about DAG and GAG, or were not actually discourse analysis of the AGs. This reduced the number of papers going back to the year 2006 to 16.

We can analyze these papers according to two “dimensions,” the subject and the speaker of the discourse. I thus arranged these articles into a matrix as shown in Table 2.3. Please notice that some papers may appear in more than one cell of the matrix.

Table 2.3: Matrix of Studies on Discourse Analysis of the AGs

Author/Subject	NAG-G	NAG-M	IAG
Teachers and School Environment	O'Connor (2006) Au (2008) Noguera (2008) O'Connor, Hill, and Robinson (2009) Zion and Blanchett (2011) McMahon (2011) Martinez (2011) Gorski (2012)		
Researchers	Ladson-Billings (2006) O'Connor et al. (2009) Parks (2009) Mocombe (2011) Hughes and North (2012) Gorski (2012)		
Politicians and Activists	Kovacs and Christie (2008) Aleman (2009)		Kovacs and Christie (2008)
Students	Irizarry (2011)	Stinson (2008)	

S. Hall (2001) gives a discussion on what Michel Foucault meant with **discourse**.

By ‘discourse’, Foucault meant ‘a group of statements which provide a language for talking about – a way of representing the knowledge about – a particular topic at a particular historical moment ... Discourse is about the production of knowledge through language. But ... since all social practices entail *meaning*, and meanings shape and influence what we do – our conduct – all practices have a discursive aspect’ (Hall, 1992: 291). It is important to note that the concept of *discourse* in this usage is not purely a ‘linguistic’ concept. It is about language *and* practice. It attempts to overcome the traditional distinction between what one *says* (language) and what one *does* (practice). Discourse, Foucault argues, constructs the topic. It defines and produces the object of our knowledge. It governs the way that a topic can be meaningfully talked about and reasoned about. It also influences how ideas are put into practice and used to regulate the conduct of others (p. 72).

According to Foucault power and knowledge are closely connected and discourse is part of this relationship. Young (1981) described this relationship by stating that

It is in this way that we can see how discursive rules are linked to the exercise of power; how the forms of discourse are both constituted by, and ensure reproduction of the social system, through forms of selection, exclusion and domination. ‘In every society’, Foucault writes, ‘the production of discourse is controlled, organised, redistributed, by a certain number of procedures whose role is to ward off its powers and dangers, to gain mastery over its chance events, to evade its materiality (pp. 48–49).

In addition, Foucault (1980) himself wrote

Discursive practices are characterized by the delimitation of a field of objects, the definition of a legitimate perspective for the agent of knowledge, and the fixing of norms for the elaboration of concepts and theories. Thus each discursive practice implies a play of prescriptions that designate exclusions and choices (p. 199).

Hughes and North (2012) provide a useful model of the types of discourse on the AGs. They identify two poles, “structure” and “culture,” which are connected. Researchers, policy makers and policy analysts position their discourse usually somewhere in between these two extreme positions. It should be noted that culture includes notions of race and ethnic groups and that structure includes poverty (see Figure 2.2).

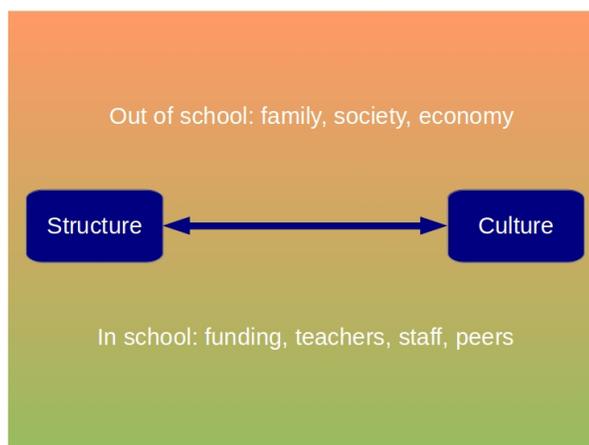


Figure 2.2: The Culture/Structure Continuum, In-school and Out-of-school Factors

The majority of the research on the Discourse Analysis of the AGs has been on the general national achievement gaps. The “voices” whose discourses were analyzed

were the in the first place teachers, school administrators and staff (Au, 2008; Gorski, 2012; Martinez, 2011; McMahon, 2011; Noguera, 2008; O'Connor, 2006; O'Connor et al., 2009; Zion & Blanchett, 2011), and the educational researchers themselves (Gorski, 2012; Hughes & North, 2012; Ladson-Billings, 2006; Mocombe, 2011; O'Connor et al., 2009; Parks, 2009). More rarely were the voices of the students analyzed (Irizarry, 2011; Stinson, 2008) and of the politicians and community activists (Aleman, 2009; Kovacs & Christie, 2008).

O'Connor (2006) analyzed the text of discourses of several high school teachers on the AGs in light of the text of "Brown versus Board of Education." The author criticized the "Acting White" Hypothesis and pointed instead to the normatization of the students of European descent, Whites and the contraposition of the Black students, hence creating the black-white binary. She noted that almost never we speak of the Asian-White achievement gap or the boy-girl AG, or even poor-wealthy AG in those terms (see also O'Connor et al., 2009). Similarly Noguera (2008) noted that when White students do poorly, the imputed cause is poverty and never their culture. Thus, according to Zion and Blanchett (2011) the interventions to reduce or eliminate the AGs have so far not been "effective on a large scale ... is that we have not yet framed the problem appropriately ... as an issue of civil rights and social justice." (p. 2188) A different approach was taken by McMahon (2011). The author due to her own research as well as existing literature, believes that good schools can overcome socio-economic limitations. She decried the "entrenched deficit discourses" (p. 199) and advocated higher salaries for teachers and better professional development. Also Gorski (2012) defined "deficit discourse" or "deficit ideology" as blaming poor people for their poverty or for outcomes resulting from their poverty (p.314). However, the author came to the opposite conclusion from the previous researcher, schools are not able to overcome the effects of poverty on low academic

achievement. Mocombe (2011) pointed out a related theoretical outlook that he wants to correct, or at least modify, the “burden of acting White” hypothesis. The author does not altogether reject it, but instead points to a different social dynamic where “Schools throughout urban inner cities are no longer means to a professional end in order to obtain economic gain, status, and upward mobility, but obstacles to that end.” (p. 95)

Au (2008) applied the concept of “pedagogic device” to the high-stakes, standardized testing which has become so prevalent in the education policy of the U.S.. The author showed how this type of testing has guided and restricted the pedagogic discourse in our country. For instance it has given a considerable amount of power to the testing companies and reduced teacher autonomy. Another practice that has restricted and directed education policy in the U.S. has been the classification of all students into a predefined set of different groups called races or ethnic groups as mandated by NCLB (Martinez, 2011). The author disputed both the scientific validity of the concept of race or ethnic group as well as its utility in improving the condition of the students.

Now turning to the discourse between educational researchers, Ladson-Billings (2006) pointed out that even in this environment there is a deficit discourse. The author uses the term “education debt” (p. 5) as a rebuttal to the “cultural deficit theories” (p. 4) that she opposed. That is the persistent under funding of education for poor people and the academic underachievement that it causes.

The article by Parks (2009) is highly relevant to my research. The author stated that “writing and research about the achievement gap can be seen as working to produce a measurable phenomenon rather than as describing a pre-existing reality.” (p. 15) The phenomenon of the AGs is created by policy using the *technology* of student assessment. Foucault’s definitions of technology are shown in Subsection

3.3. Parks remarked that

These technologies - the way the scores are (or are not) dis-aggregated, the methods of measurement, and the content being measured - are not innocent, neutral, or natural; they do not simply measure what is true; they produce it. Typically, scores are not reported by marital status, or teacher's level of education. We choose which categories to make important.

...

Emphasizing these variables [race, gender, eligibility for free- or reduced-price lunches] works to shape researchers' and politicians' discussions of who is ahead and who needs to catch up (p. 15).

Thus, these categories constrain our discourse, be it in policy as well as research and constrain how we think about education, its problems, and possible solutions. I will re-examine this paper later during the Discussion and Conclusions subsections.

An article by Atkinson (2004) was not among those returned by the search, but should nonetheless be considered.³³ The author criticized her fellow education researchers for collaborating "to make policy rhetoric a reality" (p. 112) when instead our task should be, as Foucault said, to

critique the workings of institutions which appear to be both neutral and independent; to critique them in such a manner that the political violence which has always exercised itself obscurely through them will be unmasked, so that one can fight them. (Foucault, cited on p. 112)

Another voice in public education discourse is the one represented by corporations. Kovacs and Christie (2008) took a cautious, if not critical, stance towards

this involvement. They noted that “Corporations are out for corporations,” (p. 1). The authors stated that neo-liberalism intends to change public education to support economic production and that fear is being used to induce the public to support this transformation. They quoted Bracey who stated that “there is no correlation between performance on tests and economic productivity.” (p. 9) Regarding the AGs they stated that

the only way that the “achievement gap” can close with benefits to both groups [Black and White students] is for the test scores of black students to increase at a faster rate than those of white students. Given the world we live in, this will hardly happen anytime soon (p. 11).

Finally, the authors related the AGs to U.S. macroeconomics and an unjust economy and policies. Most likely this was a reference to funding disparities between schools. Political discourse has a tacit set of cultural norms that the participants are asked to follow. Aleman (2009) showed how at the state level in Utah the Latino leaders structured their discourse as to be civil, polite, and cordial and thus blunting the effacing their negotiation power.

Last, but not least the analysis of the discourse by the students themselves who are the ones “most to gain from meaningful changes in policy and practice,” (Irizarry, 2011, p. 1). These authors described the alienation of Latino students in schools, their low academic achievement and thus poor career opportunities. The students felt culturally repressed by the teachers. Any expression not in line with the dominant culture, a North-European derivative, was curtailed. A similar study with African American students was performed by Stinson (2008). The authors performed a discourse analysis of a group of academically successful African American students. Stinson (2008) recognized the phenomenon of “hegemony” in the discourse of the

these students. Hegemony was defined as

... the manner in which imposed ideology warrants the reproduction of social and institutional practices and discourses that enable dominant groups to not only maintain their positions of power and privilege but also have consensual support from the “Others”. (p. 993)

Subsection summary

We started this subsection by reviewing what Foucault wrote about “discourse.” Such as the “production of knowledge through language” that influences, if not determines, our thinking and conduct. Then we examined the Foucaultian relationship between knowledge and power and how it relates to the discourse.

We were able to place the discourse on the AGs on a continuum between two opposing poles, the “structure” and “culture.” This continuum straddles the two fields of analysis of school phenomena, those influenced by in-school or out-of-school factors. Summarily stated, researchers who position themselves closer to the “culture” pole believe that proper attitude of the teachers and schools staff, often combined with academic adjustments, will be able to overcome the AGs. Those who are at the other pole claim that no amount of attitude change or academic “tinkering” will be able to overcome structural problems grounded in extra-school situations such as unequal funding, poverty, or racism (Figure 2.2, p. 38).

We looked at the “voices” of the discourses, namely the teachers, the education researchers, and the students. The topics were the “Acting White” Hypothesis and its rejection, the normatization into certain binary oppositions (e.g. Black/White) and not others (e.g. Asian/White) as well as the frequency of mention of the Black/White binary and the scarce mention of the Poor/Middle-class binary. An association has been made between the remedial approaches to the AGs and the position on the

continuum of the agencies involved in the remedial action.

At the end we examined how the dominant school discourse can curtail the discourse of the students themselves and thus disconnect them from the academic process. We can correlate this phenomenon with concept “hegemony” of Gramsci (1992) and “cultural capital” of Bourdieu and Passeron (1990).

2.4 Policy Analysis of the Achievement Gaps

In this subsection I present a literature analysis of papers written on the subject of educational policy that are relevant to the ethnic/income and international achievement gaps. This review subsection follows the second trajectory of analysis from the AGs in general to the concept of governmentality (see Figure 2.2).

I performed an ERIC EBSCO search for “achievement gap” and “policy analysis” as descriptors and restricted the results to peer reviewed journal articles and obtained 19 results. Then I removed studies that were not about the U.S. K-12 education system and those that were not policy analyses, which reduced the number to 9. However, in this subsection I also included 10 papers that were selected in the previous queries and are relevant also here. The research papers can be categorized by type of AG and subject of study as is shown in Table 2.4 (p. 45) and Table 2.5 (p. 45), or by type of AG and study methodology (Table 2.6, p. 46).

The watershed policy that now clearly separates US educational policy in two periods is of course the “No Child Left Behind Act” (NCLB), which was signed by President George Bush on 8 January 2002. Among the selected papers only one precedes this law (Farkas & Hall, 2000). This is a paper sponsored by the Brookings Institution³⁴ and which already prefigures important aspects of NCLB such as the concepts of accountability and state or local control and flexibility.

A set of recent articles studied this important education reform law as well as

Table 2.4: Categorization of the Policy Analysis of the NAGs

Subject/Type	NAG-G	NAG-M
Title I	Farkas and Hall (2000)	
NCLB/Testing	J. Lee (2008) Castagno (2008) J. Lee and Reeves (2012) Cummins (2011)	Ellis (2008)
Policy and Education Research	B. D. Baker and Green (2009) Aleman (2009) Lagana-Riordan and Aguilar (2009) Jordan (2010) McMahon (2011) Martinez (2011) Cummins (2011)	D. B. Martin (2009) Penfield and Lee (2010)
School Environment	B. D. Baker and Green (2009) Aleman (2009) Lagana-Riordan and Aguilar (2009) McMahon (2011)	B. A. Williams and Lemons-Smith (2009)

Table 2.5: Categorization of the Policy Analysis of the IAGs

Subject/Type	IAG-G	IAG-M
Title I		
NCLB/Testing		
Policy and Education Research		D. B. Martin (2009) Epstein, Pianko, Schnur, and Wyner (2011) J. Lee and Reeves (2012)
School Environment		Epstein et al. (2011)

Table 2.6: Different Categorization of the Policy Analysis of the AGs

Methodology	NAG-G	NAG-M	IAG-M
Statistical	J. Lee (2008) J. Lee and Reeves (2012) B. D. Baker and Green (2009)		J. Lee and Reeves (2012)
Descriptive	Castagno (2008) Martinez (2011)		
Poststructural analysis		Ellis (2008)	
Conventional analysis	Farkas and Hall (2000) Lagana-Riordan and Aguilar (2009) Jordan (2010) Epstein et al. (2011) McMahon (2011) Cummins (2011)	Penfield and Lee (2010)	Epstein et al. (2011)
CRT analysis	Aleman (2009)	D. B. Martin (2009)	D. B. Martin (2009)

its hallmark feature, the assessment of students (Castagno, 2008; Cummins, 2011; Ellis, 2008; J. Lee, 2008; J. Lee & Reeves, 2012; Parks, 2009).

A meta-study by J. Lee (2008) showed that “there were no systematic differences between high-stakes and low-stakes testing states in their progress toward narrowing their achievement gaps.” (p. 629) The authors advocated caution in using educational research that is in line with one’s ideological orientation. The researchers point out that NCLB may very well have no empirical base to rest on. A subsequent study by the same principal investigator (J. Lee & Reeves, 2012) confirmed that the implementation of NCLB did not have clear positive effects. The authors stated that with reading “the level of state average achievement as well as the pace of achievement gains have either remained the same or declined after NCLB.” (p. 224) However, “earlier progress in math has continued or accelerated with more gains after NCLB than before.” (p. 224) Again, it is very difficult to establish whether this education reform is ‘working’ or not. We will see in Section 5 how politicians do not share these

reservations and position themselves clearly in one or the other camp.

Castagno (2008) documented how at one school in Arizona modified its pedagogy to “teach to the test”. This phenomenon seems to be especially pronounced in poorer schools that have to quickly raise their scores to meet state and school district guidelines. However, at a national level it seems unlikely that all students will achieve proficiency or that schools will have attained Adequate Yearly Progress (Cummins, 2011). According to McMahon (2011) “Federal, state, and district policies and practices create a climate of risk” (p. 210) that hinders the efficacy of teachers. Later we will see how Linda Darling-Hammond during a congressional hearing described the unintended and counterproductive effects of the accountability policies (Section 5). A generally overlooked negative effect of the education reform is the claim that high achieving students may be neglected and thus do not reach their academic potential (Epstein et al., 2011).

Many researchers have concluded that the provisions of student assessment and school accountability are if not harmful at best not effective in closing the achievement gap. Equal student achievement can only be achieved by giving all students the same resources. Or in order to redress longstanding inequities (see “educational debt,” Ladson-Billings, 2006) more than equal resources should be given to poor schools and students (B. D. Baker & Green, 2009; Jordan, 2010). However, Lagana-Riordan and Aguilar (2009) remarked that in NCLB the concern for race and ethnicity has overshadowed the concern for poverty.

Nonetheless, at its onset, NCLB received wide support. Penfield and Lee (2010) without using the term “convergence of interest” (D. A. Bell, 1980) described the phenomenon by stating that “Although the passing of NCLB was generally viewed as a victory for conservatives and their neo-liberal allies, NCLB also received widespread support by many in the civil rights community.” (p. 9) The authors then quoted

Sunderman (2008)

For many in the civil rights community, NCLB represented an opportunity to focus on how public education has failed minority students. Skeptical that decisions made by state and local educators would result in tangible benefits for minority students, many civil rights advocates favored stronger role by the federal government. That federal power had been successfully used to enforce civil rights and expand access to education for minorities, women, and students with disabilities led many to believe that federal power could be used to change educational practices and student learning. (p. 9)

We have seen here above that in the policy discourse of the achievement gaps there is an antithesis between ‘culture’ and ‘structure’ as causes of the AGs (Subsection 2.3, Figure 2.2). The rationales for the reduction or elimination of the AGs can be conceptualized as another antithesis where the extreme positions are “economic benefit” vis--vis the global economy or the danger of an unemployable and welfare dependent underclass, and “social justice” as an extension of *Brown versus Board of Education* (B. A. Williams & Lemons-Smith, 2009) (see Figure 2.3). These authors also take the position that the cause and thus remedy of the AGs has to be found in the ‘structure’ of society and the ‘culture,’ but not of the students, but rather the one of the teachers and school administrators. Usually the poles “culture” and “economic benefit” are associated with a more conservative political position, while the opposite poles are more often held by those with a more progressive orientation.

A final ‘uneasy’ antithesis is between those who recognize that concepts of race and ethnicity are social constructs and thus not *real*, at least not as concrete as differences in wealth or income or English language proficiency, and those who want

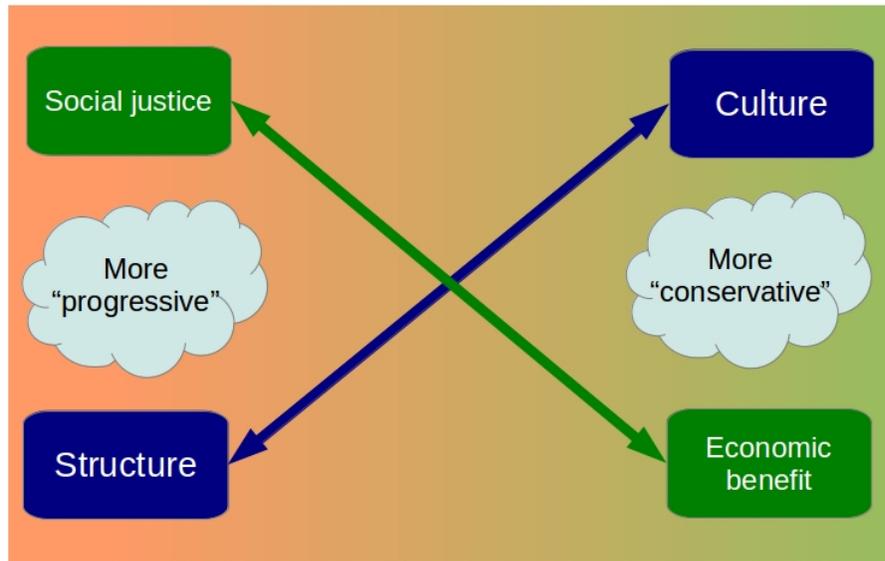


Figure 2.3: The Culture/Structure and Economy/Justice Continua

to classify, dis-aggregate, students by ‘subgroups’ also according to race and ethnicity (D. B. Martin, 2009) and thus give these terms legal status in education policy. See Figure 2.4 where I have added this third continuum on the previous diagram.

Paradoxically, social activism is often associated with a request for the identification of racial differences and thus to dis-aggregate students. This is done so that the AGs are kept manifest and thus in the public discourse. For historical reasons this policy seems to engender a larger consensus than to classify students by wealth. We will discuss in Section 6 the implications of this policy phenomenon.

Subsection summary

We began this review subsection by showing that the relationship between high stakes testing, the hallmark of recent education reform, and academic achievement is dubious at best. Nonetheless, schools implemented changes to comply with the policy reforms and several, usually critical, papers have described the effects of these academic modifications.

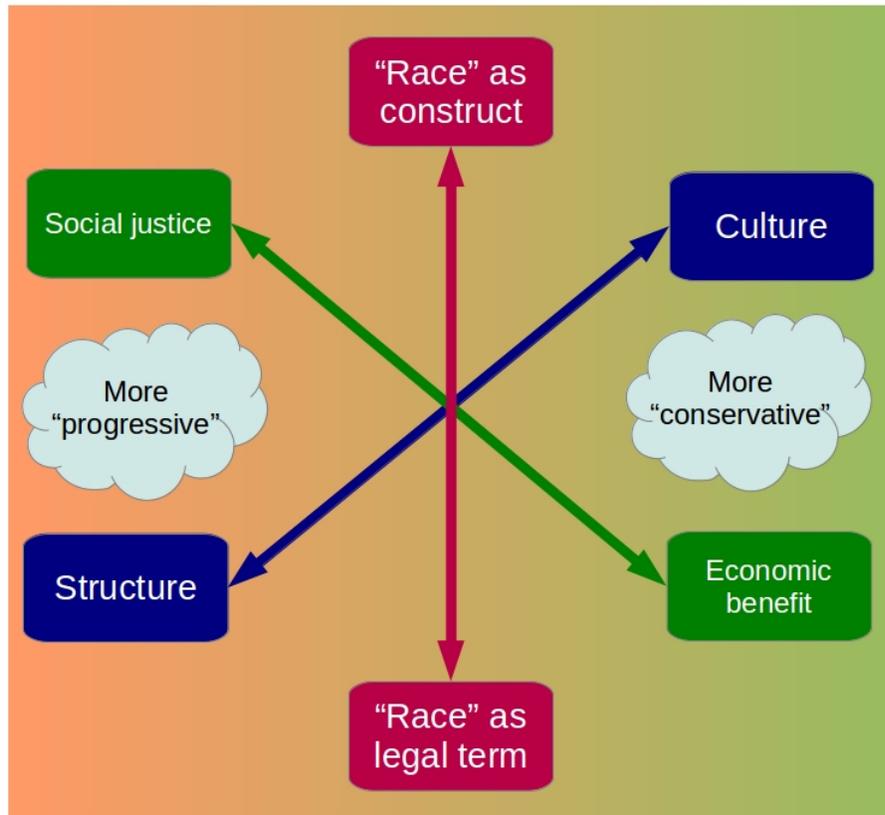


Figure 2.4: The Three Continua

We have examined a few papers on the response of the school faculty and administrators, and education activists to the reforms and how, at least at the beginning, a large consensus existed on the necessity of implementing the changes.

In the previous subsection (2.3) we saw how the studies and discourses on the cause(s) of the AGs can be placed on a continuum (Figure 2.2). In this subsection we have examined how the motivations to eliminate or at least reduce the AGs can similarly be placed on the “social justice” to “economic benefit” continuum (Figure 2.3). A final antithesis that I have found in the literature is the “race as a construct” versus “race as a legal term” (Figure 2.4).

2.5 Governmentality

An ERIC EBSCO database search for the terms “governmentality” and “achievement gap” did not yield any result even when non peer reviewed and non journal articles were included. Thus, I will now give a basic description of the concept of governmentality based on Michel Foucault himself and later try to weave it into a tapestry using more recent authors that have written on this subject. Foucault (2009, pp. 108–109) himself described *governmentality* according to the following three “dimensions” (see Figure 2.5)

1. The ensemble formed by the *institutions, procedures, analyses and reflections, the calculations and tactics* that allow the exercise of this very specific albeit complex form of power, which has as its *target* population, as its principal *form of knowledge* political economy, and as its essential *technical means* apparatuses of security.
2. The *tendency* which, over a long period and throughout the West, has steadily led towards the pre-eminence over all other forms (sovereignty, discipline, etc.) of this type of power which may be termed government, resulting, on the one hand, in *formation of a whole series of specific governmental apparatuses*, and, on the other, in the development of a whole *complex of savoirs*.
3. The process, or rather the *result of the process*, through which the state of justice of the Middle Ages, transformed into the *administrative state* during the fifteenth and sixteenth centuries, gradually becomes ‘governmentalized.’

Foucault did not publish any book or paper specifically on *governmentality* and all we know is based on his two series of lectures at the Collège de France, one in 1978 “Sécurité, Territoire, Population” (Foucault, 2004b) and one in 1979 “Naissance de

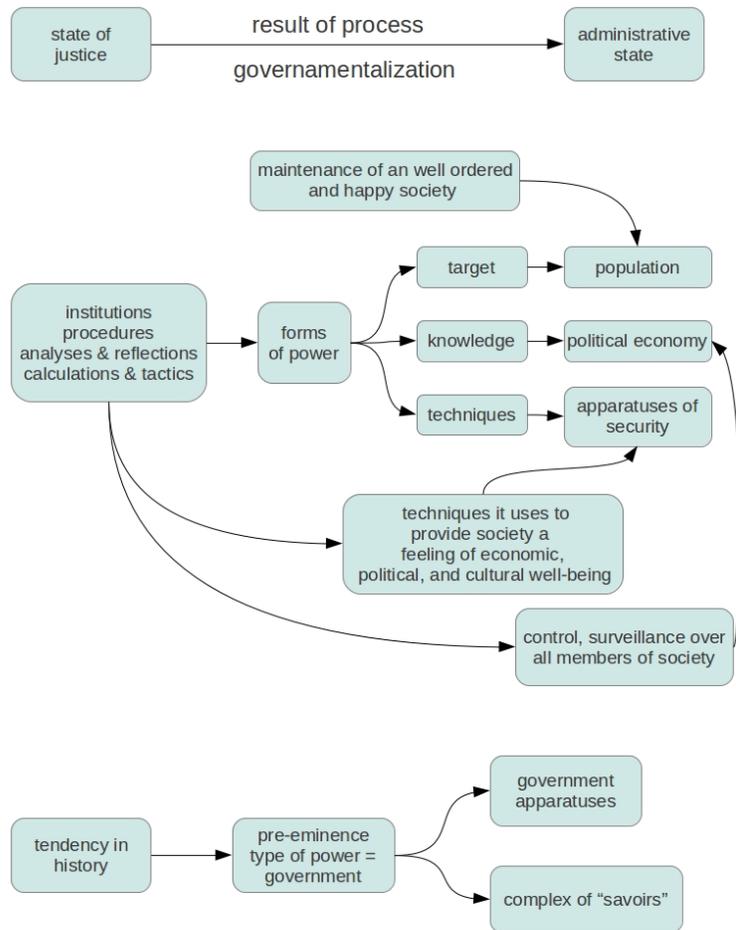


Figure 2.5: Three Dimensions of Governmentality

la biopolitique” (Foucault, 2004a). Later scholars have tried to systematize and extend his ideas in books and articles. One of the main of such works is by Dean (2009) who wrote that “. . . the term government to Foucault meant not so much the political or administrative structures of the modern state as the way in which the conduct of individuals or of groups may be directed. To analyse government is to analyse those mechanisms that try to shape, sculpt, mobilise and work through the choices, desires, aspirations, needs, wants and lifestyles of individuals and groups.” (p. 20)

Doherty (2006) recapitulated governmentality as

. . . a form of analysis that opens a distinct stratum for investigation; it is a perspective that examines, with historical gaze, governing as a deliberate, purposeful, technised activity, directed at the subject, the society, or some consciously categorized subdivision of the social body. (p. 53)

Hence, a historical investigation that is illuminated by governmentality will focus on

strategies, techniques, methods and technologies that have been deliberately employed or incorporated by the state in maximizing its resources (crucially its population). (p. 53)

Another, more concise and systematic representation of the concept of governmentality was given by Suspitsyna (2010) by stating that it

encompasses two dimensions. First, there are techniques for managing populations and the political rationality behind them. Second, there is

self-conduct, or in Foucaultian parlance, techniques of the self of individual subjects who regulate their behaviour according to internalized social norms. (p. 570)

It should be noted that the governmentality dimension for this author are different than those in Foucault (2009, pp. 108–109).

Doherty (2006) noted certain crucial observations made by Foucault that will be relevant later. The modern state has recognized the limitations of the state. No matter how complex and pervasive the administration, society is still more complex, and even more so a society that increases its economical, technical, scientific, and cultural activities. Thus, the citizens have to, at least for a significant part of their social relations, govern themselves. Central components of a harmonious and productive consorting of people are a ‘civil society’ and a free market. Furthermore, while previously a free market was considered the sole mechanism for prosperity, nowadays a government is asked to intervene whenever there are distortions, and structural problems that the actions of the free market are not deemed to be able to solve. However, this is done with great reluctance and there is an permanent tension between those that want to reduce the actions of the government and those who claiming a general benefit of society, request it to intervene to remove a distortion, an anomalous (often called unjust) social condition that the free market is powerless to tackle. An extensive description of governmentality that gives more historical information of the origin of the modern government was given by Peters (2007).

As I have stated here above, I was not able to find any educational articles on governmentality and the AGs. However there are a few research papers on governmentality and education that will be very useful later. Knight et al. (1990) performed a discourse analysis of multicultural education in Australia. The author noted that

in education policy discourse, once a policy has been introduced, the dynamics are not simply *acceptance* or *rejection* of it, but rather the bending, turning and alignment of it to the ideological stance of a particular party. Each of the opposing camps will use the same 'building blocks' of the discourse, themes and concepts that are shared and have been accepted as normative. However, these blocks are marshalled, juxtaposed, and presented in a certain fashion that supports the position. Knight used the term "shared ideological frame of reference." (p. 137)

A different Australian educational thematic, private versus public schools, was discussed by Kenway (1990) also using Foucaultian governmentality analysis. The author deemed necessary to add the theory of 'hegemony' by Antonio Gramsci to his investigation (see e.g. Gramsci, 1992). Kenway noted how the institutions of the government implement 'technologies of power' where the knowledge-power couplet that implied in these practices is warranted by research produced by the human (i.e. social) sciences. The researches also underlined what Foucault called 'dividing practices.' Kenway explained these practices as

... those procedures which, though classification and categorization, distribute, contain, manipulate, and control people. Such methods divide people from each other and within themselves, giving them an identity which is both social and personal.

... Foucault shows that 'dividing practices' interconnect with the growth of the social sciences, that they relate historically to humanitarian rhetoric on reform and progress, that they become increasingly efficient and widely applied, and that they were usually applied to dominated groups. (p. 174)

In addition, Kenway discussed ‘disciplinary technologies’ that came about by the government accepting “responsibility for economy, order, and the lives of the people through all aspects of society.” (p. 174) These technologies of discipline operate according to a rationality of “efficiency and productivity through a system of ‘normalization’.” (p. 175) In modern society the concept of ‘norm versus deviation’ has superseded ‘just versus unjust’ or ‘right versus wrong’. The norm is a condition brought about by appropriate behaviour that ensures an optimally efficient and thus prosperous society. We will see how the antithesis of AGs being ‘unjust’ against ‘anti-competitive’ permeates the political discourse (Subsection 5). Kenway stated that to eliminate deviations from the norm the state will implement ‘normalizing technologies’, vast apparatuses of testing and documentation. Then other technologies will be activated to provide corrective and disciplinary interventions. Again, these technologies will be based on the results of social sciences (and statistics, I would add). Thus, as Kenway stated

The ‘objective’ knowledges produced as a result of such inquisitions [the normalizing technologies] becomes part of the ‘web of control’ of the state bureaucracy. (p. 175)

The creation of the concept of the achievement gaps has been the outcome of these normalizing technologies. We will return to these concepts later.

The application of Foucault’s governmentality to education research has been criticized. Goddard (2010) noted that the theoretical framework of put in place by Foucault to study the evolution of the idea and practices of government is eminently analytic and not programmatic. It does not only fail offer a transition between ‘is’ and ‘ought,’ it does not offer an ‘ought’ or more precisely, shows that it is not possible to have an ‘ought.’ Thus, the author imputed Foucault with tacit complicity with

neo-liberal ideology. It does not provide educational researchers committed to social activism with any usable tools for their enterprise.

Subsection summary

We have thus seen that the intersection of governmentality and the achievement gaps has been but rarely studied (Figure 2.1, p. 24).

We looked at the Foucault's three definitions of governmentality and saw how it is a type of genealogical study, a study of how the "idea" of government has changed over time. It is thus not the study of the gears of government and how they interact and move each other, but rather the study of why certain gears have been chosen and why they have been placed in the machinery that certain places and how it has become more and more complex over time.

There are certain aspects of governmentality that are particularly relevant to our research question. They are the "limitation of government" where the state makes appeal to the self-government of the citizen and the market forces and the acceptance rather than rejection and discursive co-optation of the apparatuses and processes of the state by the parties in a society. Other relevant governmentality concepts are the 'dividing practices,' 'disciplinary technologies' and the 'normalizing techniques' that have engendered the concept and awareness of the AGs.

We have seen that the concept of governmentality has been applied, among others fields, to education and that its concepts have been used to study certain education policies, especially in Australia.

3. METHODOLOGY

In this section I describe how I obtained and analyzed the data used to answer the research question. In the Introduction Subsection I briefly describe the theoretical principles used to frame the research question. My research methods are a combination of Qualitative Data Analysis (Subsection 3.5) with Quantitative Data Analysis, primarily Text Mining (Subsection 3.6). Operationally I made heavy use of computer technology to assist me as much as possible with the retrieval, processing, and analysis of the data. Thus, I devoted Subsection 3.2 to its description. The final product of the research was the narratives, which were framed by Foucault's definition of governmentality (Subsection 3.7). A general overview of the methodology is shown in Figure 3.1.

3.1 Introduction

Gough (2000) describes *methodology* as the “reasoning that informs particular ways of doing research, or the principles that inform the organization of research activity” (p. 3) and also as “conceptual framework or the assumptions that guide their research” (p. 3) and “reasons for using such techniques in relation to the kind of knowledge or understanding the researcher is seeking.”(p. 4) Similarly, Rudestam and Newton (2007, p. 38) stated that “methodologies can be regarded as the strategies, action plans, or designs that inform the choice of specific methods, that is, procedures and techniques for data collection and analysis.”

While ‘method’ and ‘methodology’ are often confused or used synonymously, Harding (as cited in Gough, 2000, p. 4) stated that in the social sciences

A research *method* is a technique for (or a way of proceeding in) gathering evidence. One could reasonable argue that all-evidence gathering tech-

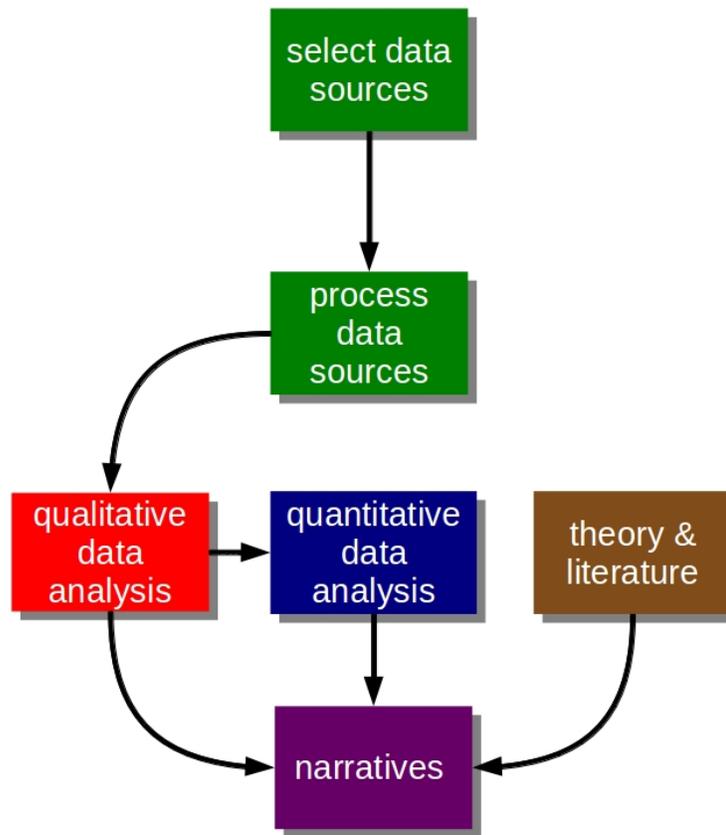


Figure 3.1: Workflow of the Research Process - Overview

niques fall into one of the following three categories: **listening to (or interrogating) informants**, **observing behavior**, or **examining historical traces and records**. In this sense, there are only three methods of social inquiry.³⁵

Briefly stated, my study is an archival-historical research project. Thus, in my case the only method that was used is the third one, *examining historical traces and records*. I call it *text analysis* with the understanding that I am examining written texts. These *historical traces and records* are my **data**. The kind of documents and their sources are presented in the Subsection 3.4. This qualitative analysis was

complemented by quantitative text analysis, also called *text mining*.

The object of study is the discourse of a body politic, the U.S. government. The meaning of the texts is certainly important and has to be taken into consideration, but it is not the focus of the study.

The study of social perceptions as evinced from public statements is clearly a study not of “objects” and not even of “behavior,” but of ideas and of discourses. Whether a statement itself is true or not is not the issue, and even its meaning defined as intent of the original author is only secondarily relevant. I was interested in understanding what counts and what does not, what is perceived as correct and what is not. However, I intended to go beyond this. I also wanted to study what is not said, what is missing, or more precisely, what does not have to be said. This is the domain of “discourse analysis,” especially the types of discourse analysis developed by Michel Foucault (Peräkylä, 2005, pp. 871–872).

Why have I chosen Foucault’s among the many approaches that are available to engage in the analysis of educational policy? To answer this question we need to recall that in qualitative studies the researcher is his or her own instrument. The researcher’s attitudes, opinions and worldview are greatly influenced by the environment he or she grew up in and the emotional and intellectual experiences of life. I have due to family history changed many times myself. I have changed the language in which I think several times, I have changed political and religious outlooks, I have changed diet. I have even changed from being left-handed to right-handed. Hence it comes natural to me to agree with the following statement by Mark Olssen (1999, p. 113)

Critique, for Foucault, aims at identifying and exposing the unrecognized forms of power in people’s lives, to expose and move beyond the forms in

which we are entrapped in relation to the diverse ways that we act and think. In this sense, critique aims to free us from the historically transitory constraints of contemporary consciousness as realized in and through discursive practices. Such constraints impose limitations that have become so intimately a part of the way people experience their lives that they no longer experience these systems as limitations but embrace them as the very structure of normal and natural human behavior. Within these limits, seen as both the limits of reason and the limits of nature, freedom is subordinated to reason which is subordinated to nature, and it is against such a reduction of reason to nature that Foucault struggles. His commitment is to a form of “permanent criticism” which much be seen as linked to his broader program of freedom of thought. It is the freedom to think differently from what we already know.

The type of research determines the methods. The methods of an archival-historical project are text and discourse analysis. I examine statements by politicians, political and professional organizations, corporations and think tanks. These statements are in the form of reports, press releases, web articles and quotations and interviews by journalists of the above mentioned entities. The medium will be printed or electronic.

My paradigmatic standpoint in this research project is eminently qualitative. However, I also use some quantitative methods as a supplementary investigation as it is now possible to do statistical analysis of texts. I describe this type of analysis below in Subsection 3.6.

At this point I would like to briefly touch on the issue of ethics in educational research. There is a branch of philosophy that studies values (Gough, 2000), and

ethics (Denzin & Lincoln, 2005, p. 183). Ethical considerations are never far away in the natural sciences. Consider for example research in genetics, medicine, nuclear energy, artificial intelligence, or robotics. In the social sciences the situation is complex. We have positivist social scientists who claim that their research process is value-neutral (e.g. Guba & Lincoln, 2005). This is strongly disputed by social researchers who do not accept the positivist view of their research (Howe, 2009). It is impossible to do social research and not be concerned about values. Howe (2009) stated “Just as social research is theory-laden, it is also value-laden.” It is inescapable. After all, the statement “my research is value-neutral” is a value statement.

What is my position? I certainly join those who state that any type of investigation has ethical implications. However, I do not espouse any activist orientation, nor any particular action in educational research or policy in this investigation. This research has undoubtedly informed, shaped, and even changed my personal opinions on education and its policies, but I did not want that to be an integral part of my present studies. From an operational, methodological position, my work followed the *Standards for reporting on humanities-oriented research in AERA publications* Barone et al. (2009).

Having said that, I want to state that I completely agree with Guba and Lincoln (2005, p. 200) that axiology is “part of the foundational philosophical dimensions of paradigm proposal.” My work intends to assist, even in small measure, the reader to recognize in mathematics education what Pierre Bourdieu calls *symbolic violence* (Sabour, 1999), that the knowledge it produces is a product to be sold (Lyotard, 1984, p. 4), and that what appears to be natural, normal, a fact of life, is actually a socially inculcated way of thinking. Thus, we can reclaim some of our freedom of action.

I availed myself of both qualitative and quantitative investigations because the analysis process consisted of two tracks that were parallel, but also intertwined and reinforcing, correcting, and informing each other. It may be pictorially imagined as a caduceus, a symbol of balanced and equal exchange. These two approaches are thus qualitative discourse analysis and text mining. Thus, during the final stage of the investigation I integrated the results of the qualitative data analysis (QDA), text mining, and literature review into a final product. The core of the end product consisted of the narratives where I described in light of *governmentality* how the public discourse on the mathematics achievement gaps is structured.

The flow diagram of the research process (Figure 3.2, p. 64) shows the steps and their relationships in further detail. Each box represents a step in the investigative process. Green boxes represent the steps for the data retrieval and processing, red boxes the QDA, blue boxes the text mining, and brown boxes the conceptual processes. These steps are described in the following subsections starting with the description of the technology, then the explanation of the preparation of the data and qualitative data analysis, and finally the text mining.

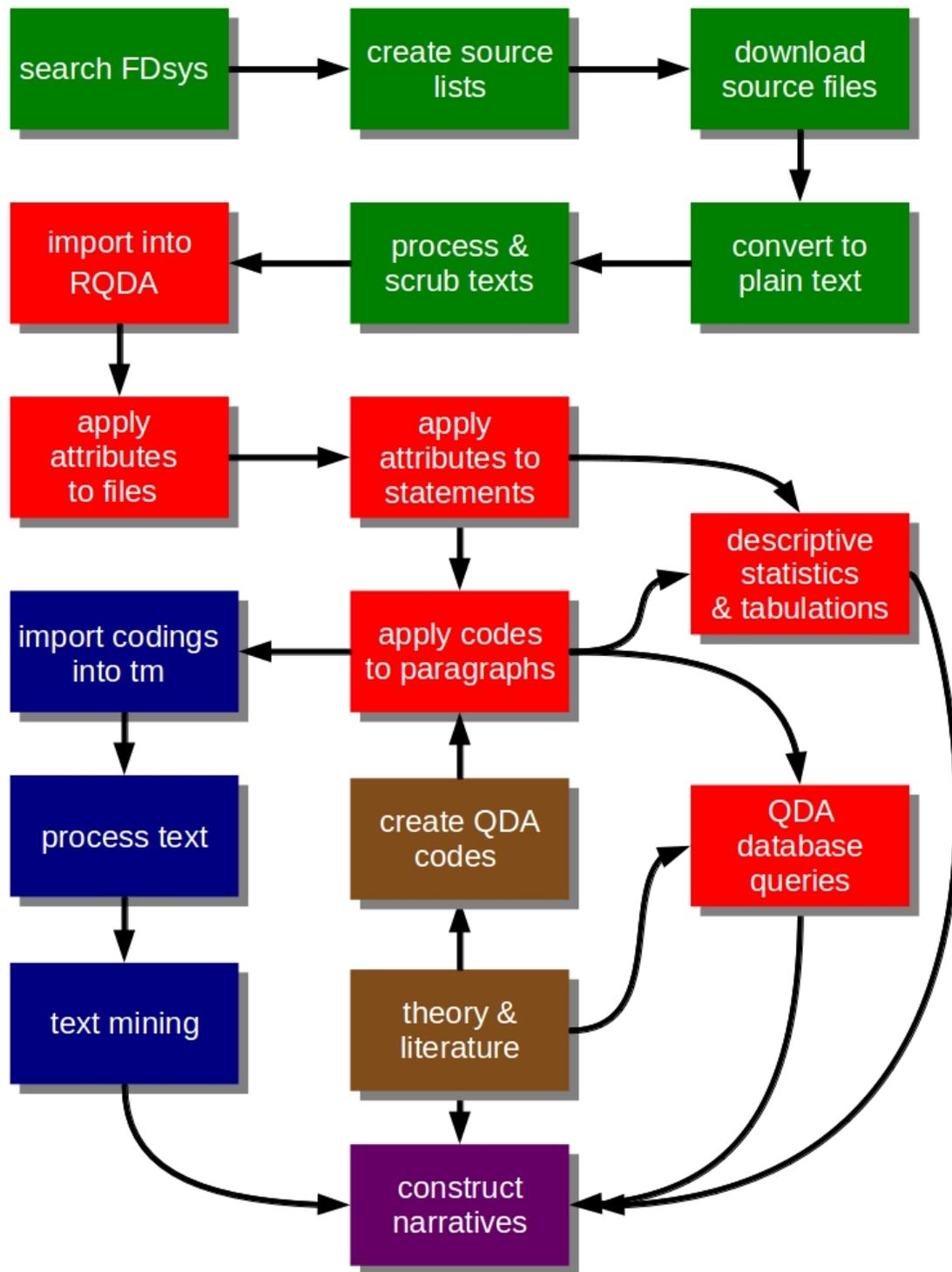


Figure 3.2: Workflow of the Research Process

3.2 Software and Hardware Resources

There are software applications that can assist the researcher in performing either qualitative or quantitative data analysis. Even though all these steps can be performed using pencil and paper and have been done in this fashion until recent times, the use of software and computers can greatly facilitate this process. In this subsection I describe in some detail the various software application that I have used for this investigation. For more information I provide the websites for each of these applications in the endnotes.

The data retrieval and processing was accomplished using *bash* scripts.³⁶ *bash* is a powerful open source scripting environment that is capable of automating the retrieval and processing of files and texts.

The basis of all data analysis that I performed is an open source application called *R* (R Development Core Team, 2010) that is becoming increasingly popular in academia and business.³⁷ I decided thus to use it for practical as well as ideological reasons. *R* is free, multi-platform (Windows, MacOSX, UNIX/Linux), actively developed and thus frequently updated, it possesses many, many additional libraries for just about any possible statistical and data analysis application that extend its functionality. Among them I have used *RQDA* for qualitative data analysis, *tm* for text mining, and *ggplot2*³⁸ for plotting. In addition, because all three components of analysis (QDA, text mining, and descriptive statistics) were performed using *R* it was easy to exchange information between these components. On the downside, the system is somewhat difficult to use and is not as popular among social scientists as it is among statisticians and researchers in the natural sciences.

There is a category of software called “qualitative data analysis” (QDA). There are several QDA packages, both commercial and open source. The QDA package for

R is *RQDA* (Huang, 2011). The advantages of *RQDA* are its integration with *R* and being open source, and thus free. From the website

RQDA is an easy-to-use tool to assist in the analysis of textual data. At the present, it supports only plain text format data. (...) It includes a number of standard Computer-Aided Qualitative Data Analysis features. Besides, it seamlessly integrated with R, which means that a) statistical analysis on the coding is possible, and b) functions about data manipulation and analysis can be easily extended by writing R functions. To some extent, RQDA and R makes an integrated platform for both quantitative and qualitative data analysis.

For text mining I used the *R* package called simply *tm*,³⁹ an add-on package of *R*. The main statistical analyses of text mining done by this *R* package are *count-based evaluation*, *term correlations*, *simple text clustering*, *hierarchical clustering*, *trend analysis* and *text classification*. One can consult Feinerer, Hornik, and Meyer (2008), Feinerer (2008a), Feinerer (2008b), and Feinerer (2010) for an explanation of these terms as well as for examples of this type of analysis performed in the *R* data analysis application.

My strategy in running scripts was to use tables as much as possible. *bash* scripts would often generate data into list format which other scripts then would use to generate more data. This data was then formatted and loaded by *R* scripts into the *RQDA* project database or was used by other *R* scripts that would do text mining or descriptive statistics and plots.

For computationally intensive tasks I used *Brazos*, a major computing cluster (HPC) at Texas A&M University.⁴⁰ *Brazos* is a cluster of 126 Dell PowerEdge 1950 1U servers and runs the Linux operating system. It supports several scientific and

mathematical programs, among which *R*.

It was very convenient and efficient to integrate all the text writing and data analysis with one “master” software application called *Emacs*.⁴¹ Emacs is a powerful and versatile multi-function text editor that can be extended by adding packages, such as *ESS*, to interface with *R*.⁴² To organize my data, texts, and help with the work flow I used a popular Emacs package named *org-mode*.⁴³

To produce the final document in PDF format I used the powerful text processing system *L^AT_EX*.⁴⁴ As *R*, *L^AT_EX* is more popular in mathematics, engineering and exact science research than among social sciences research. For bibliographic references I used *BibTeX*⁴⁵ a bibliographic management system that works with *L^AT_EX*. Emacs is also able to interface with *L^AT_EX* through a package called *AUCTeX*.⁴⁶

3.3 The Research Process

From an operational point of view there were five levels of analysis of the document collections as described in Table 3.1.

Table 3.1: Levels of Analysis of the Data

Level	Unit of Analysis	Descriptors
1	Collection	Project attributes
2	File	File attributes
3	Statement	Statement attributes
4	Paragraph	QDA Codes
5	Word	text mining

The highest level is the collection of the documents. The second level consists of the documents. In this stage I assigned attributes to the plain text files that were

imported into the QDA software program, *RQDA*. The third is the level of statement. I defined statement as a part of text that is from the same author and stems from the same written source. In the Presidential Documents each file is usually one statement. The exceptions are the debates, where there are two statements, one for each debater. In *RQDA* I use a structure called **case** to analyze these statements. The fourth is the level of paragraph, defined as a portion of text between two empty lines or starting with an indentation. In *RQDA* I used **codes** to analyze relevant paragraphs. The fifth and lowest level are the words themselves. I employed **text mining** and the *R* package *tm* to perform analysis at this level.

The steps of the data analysis process are shown in Table 3.2. The steps where the data sources were retrieved, processed, and analyzed are described in detail in Subsection 3.4, Subsection 3.5, and Subsection 3.6. Figure 3.2 (p. 64) shows graphically the work flow pertaining to those steps.

The whole research process began with the search, retrieval, processing, and import of the data, thus reaching the first level of analysis.

At this point I was ready to refine the analysis process from the document to the statement level. Thus the step of the analysis process consisted in the definition and description of the statements. Then I generated summary tables of the analysis of the statements (see Appendix A).

After that I narrowed my focus to the paragraph level by applying QDA codes to the paragraph units of all the statements (see Appendix B). Once that was done I could obtain descriptive statistics from the QDA coding (see Appendix C). In addition I could now query the codes for structured QDA information. The text of the coded paragraphs was exported for the next analysis.

The lowest level of analysis detail was at the level of the single words of the texts. I created text mining corpora from the text of all the QDA coded paragraphs. These

Table 3.2: Data Analysis Steps

Step	Description
1	Search FDsys & Create source lists
2	Download source documents & Convert to plain text
3	Build tables of file descriptions
4	Text formatting & scrubbing
5	Import text files into <i>RQDA</i>
6	Apply attributes to files in <i>RQDA</i>
7	Define and describe statements in <i>RQDA</i>
8	Statement summary data from <i>RQDA</i>
9	Apply QDA codes to paragraphs in <i>RQDA</i>
10	Summary results of QDA codes in <i>RQDA</i>
11	QDA database searches
12	Create <i>tm</i> corpora from <i>RQDA</i> codings
13	Process <i>tm</i> corpora
14	Text mine <i>tm</i> corpora
15	Synthesize into narratives

corpora were processed so that words with high information content (e.g. “school,” “teacher,” “accountability,” and “reform”) were retrieved. These information rich words were formatted into matrices and several types of statistics and plots were obtained from them (see Appendix D). In the following two subsections I describe in more detail the qualitative and quantitative analyses, and the final synthesis.

3.4 Data Retrieval and Processing

Having determined to examine federal level policy documents I had to determine the reach of my document collection. I decided to examine one body of documents of each of the two branches of the federal government, namely the “Presidential Documents” and the “Congressional Hearings.” The Presidential documents consist of in the first case mostly of transcribed presidential speeches with some question and answer sessions and communiques. The Congressional hearings documents are

made up of transcripts of presentations given by members of Congress, witnesses and experts that were invited and integrated with discussions between legislators, question and answer sessions, and statements submitted to the record. In Subsection 6.2 I will mention other possible policy data sources.

The process initiated with the search on the FDsys (<http://www.gpo.gov/fdsys/>) website for the terms “education,” “achievement gap,” and “math” in each document repository. The web site created search results pages that were saved to one or more `html` files. Then *bash* scripts extracted the URLs from these `html` pages and created my URL lists. These lists were used by other *bash* scripts that downloaded the documents. Repeating items were removed and then sorted, and counted by *bash* scripts so that they could be checked with the totals given for the searches on the FDsys website.

Some searches resulted in more than one page. Thus I needed to splice these pages into a single `html` file. The scripts performed the merges.

In the document collection Congressional hearings this search produced 217 results, which I considered excessive. Thus, I made the search more restrictive for this collection. I performed the following three searches

1. “education” and “achievement gap” and “math” and “TIMSS”
2. “education” and “achievement gap” and “math” and “NAEP”
3. “education” and “achievement gap” and “math” and “PISA”

The first search yielded 26 results, the second one 86, and the third one 24. I merged the three results. The total extracted URLs is 129 instead of 136 because the search results do partially overlap. Thus, the script removed duplicate URLs. This phase corresponds to the green boxes labeled “search FDsys” and “create source lists” in Figure 3.3 (p. 71).

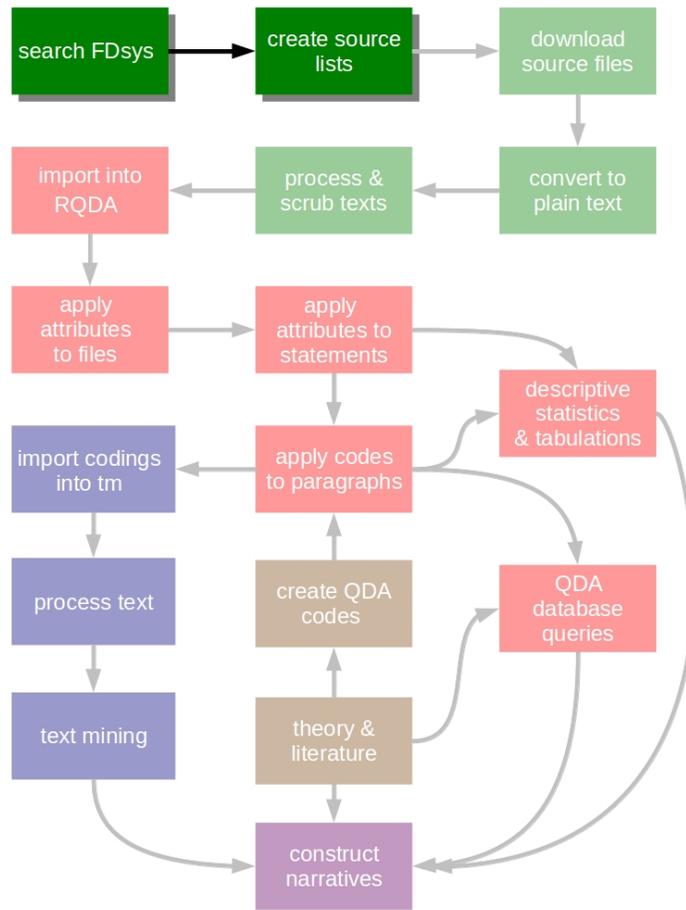


Figure 3.3: Data Search

Once the *bash* scripts had created the lists of searched files, other scripts used these lists to download these data files from FDSys, the federal government on-line database (<http://www.gpo.gov/fdsys/>) and placed these files in the appropriate directories. I wrote other *bash* scripts that then converted the downloaded files from `html` format into plain text files. The scripts also provided the number of downloaded files in each directory and created a log file that could be inspected. The relationship of these operations to the rest of the research process is shown graphically as the

green boxes “download source files” and “convert to plain text” in the work flow diagram 3.4 (p. 72).

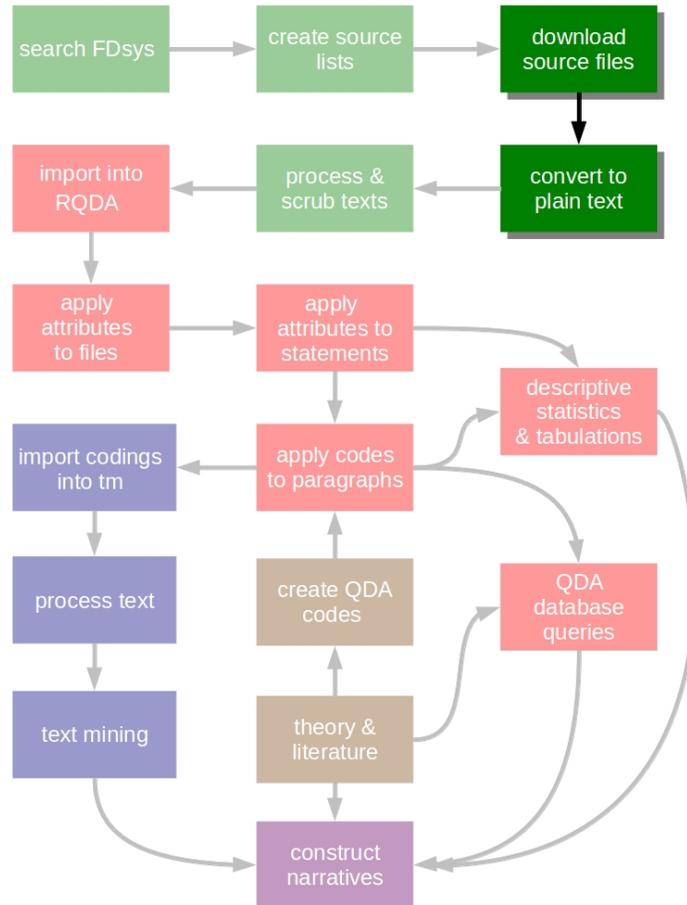


Figure 3.4: Data Retrieval

After these processes were accomplished a *bash* script built the tables of file descriptions of the downloaded data sources. This operation was necessary to start the analysis of the data sources. The resulting tables are shown in Subsection 4.2.

The next step of the data processing consisted of ‘scrubbing’ and formatting the

text of the downloaded documents. This corresponds to the green box “process & scrub texts” in the flow chart 3.5 (p. 74) and was performed by *bash* scripts. This processing was necessary because the downloaded texts did not have proper paragraphs and in the case of the Congressional Hearings the documents often contained both written statements and the reading of them. Even though these two renditions were not identical, they basically duplicate all the content of the statement. Thus, I have chosen the written statement and deleted the reading of it. Sometimes the written statement was missing or corrupted and I was thus forced to use the version that was read during the hearing.

In addition the hearings have also the transcripts of discussions and ‘chit-chat.’ To reduce the text to only its ‘high content’ portions, I extracted only the written statements and letters if they were not read out. Then all the pieces were recombined into a ‘scrubbed’ file that could then be imported into the QDA software. I have excluded all discussions because they are much more intricate and complex and would require a different level of analysis.

At this point the files were ready to be imported into the QDA software package. This was accomplished by *R* scripts, see the red box “import into RQDA” in Figure 3.6.

3.5 Qualitative Data Analysis

The analysis of qualitative data (QDA) as a strategy, activity, and set of methods is varied, but can be conceptually reduced to a series of processes. Here I rely on the description given by Creswell (2007, pp. 150–155) of these processes that he calls collectively the “Data Analysis Spiral.”

In quantitative analysis there is a clear, linear process starting from experimental design, through data collection, to statistical analysis, and then discussion and

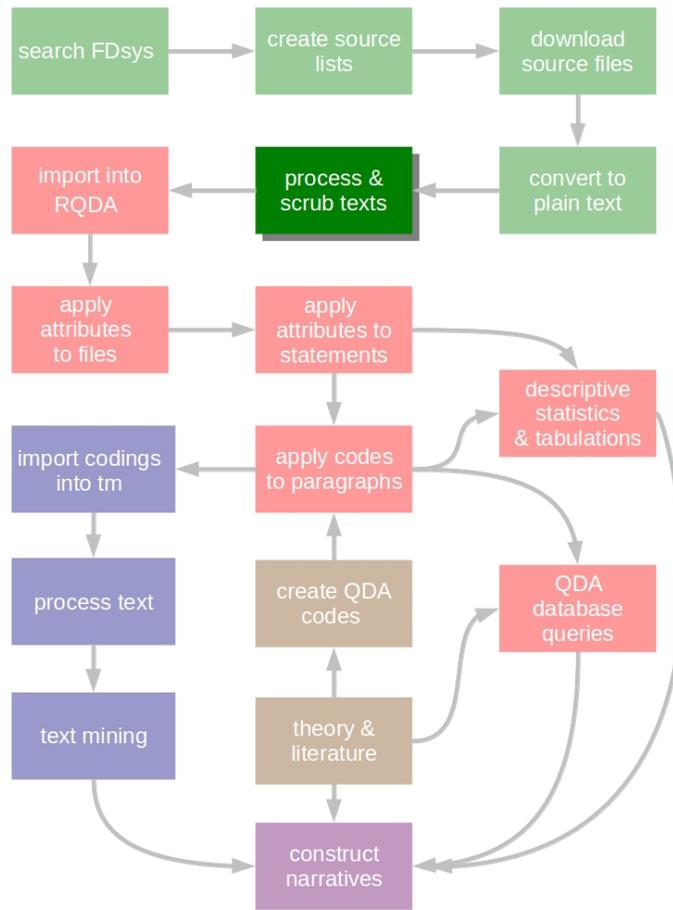


Figure 3.5: Data Processing

conclusions. Qualitative analysis is not linear, but can be imagined as a combination of a line with a circle, resulting in a spiral as Creswell (2007) explains. The author presents on page 151 of this book a very illustrative figure of the data analysis spiral.

Thus, the QDA process is iterative, but at each turn the analysis has progressed. At many steps of our analysis we have to look back at the data to modify our initial analysis, the analysis then modifies our understandings, which will then modify, shift our analytical framework, until at the end he have obtained an account or a narrative.

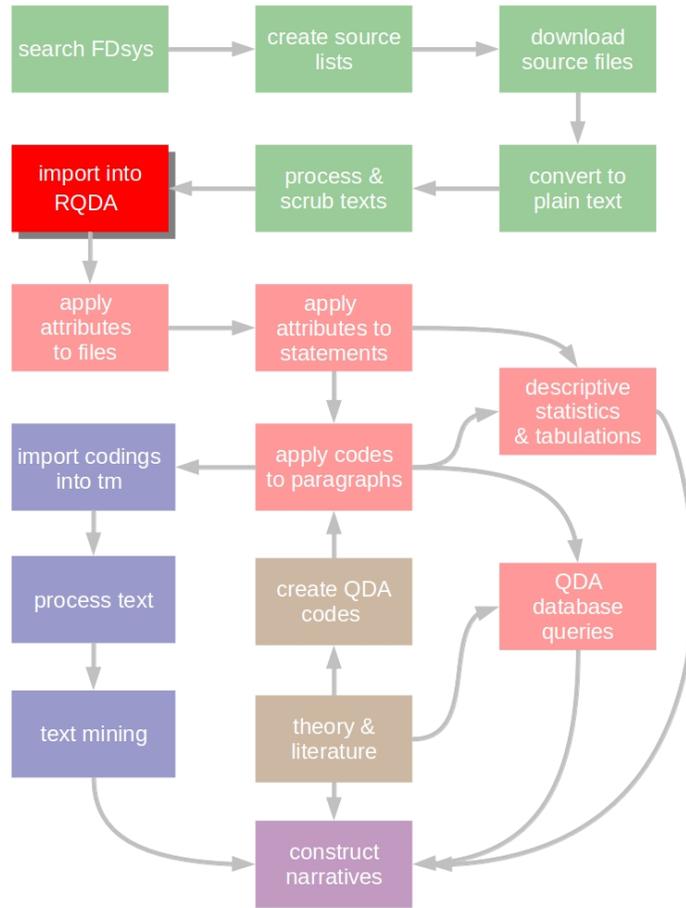


Figure 3.6: Data Import

The initial iterations are about *data management*, where the researchers collect and organize their data sources, and perform the appropriate conversions and classifications (see the green boxes in Figure 3.2 and the previous subsection). The researchers will often group the material into categories (in my case: presidential speeches and congressional hearings) as well as giving attributes to the files (e.g. date, location, author, audience and affiliation of the author, etc.). See the red boxes labelled “apply attributes to files” and “apply attributes to statements” in

Figure 3.7.

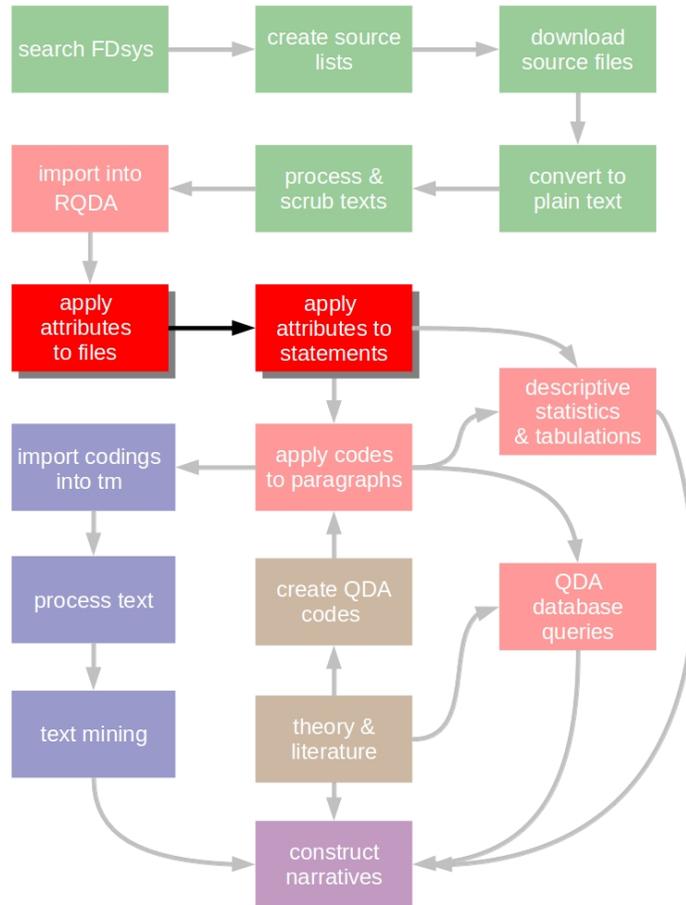


Figure 3.7: Data Attributes

This is followed by the *reading and memoing* of the data, where the researchers familiarize themselves with the data by extensive reading and comparisons within the data and with the existing literature. Often the researcher will write notes and memos and other types of comments.

The next group of loops are the core of the qualitative analysis process. These

cycles are devoted to *description, classification, and interpretation* of the data. The researcher will create codes, also called categories. These codes are then applied to portions of the text. There are no precise boundaries to these codes texts. They range from fragments of sentences to one or more paragraphs. The number of codes also varies, often new codes are created and other are discarded during this process due to the iterative nature of qualitative analysis. During this stage of analysis the researchers can now go “beyond” the text. They can notice and mark dichotomies, omissions, disruptions, metaphors, allusions, and contradictions. At a later stage related codes can be grouped into categories of codes, also called themes. At this point the researchers will begin to interpret the data. This is a very personal and “fuzzy” process and often these interpretations will be tentative and inconclusive (Creswell, 2007, p. 154).

One can consider this coding to be the “core” of the QDA process. This process was quite complex and laborious. It required many components and processes, both scripted and manual. The components were the definition and description of codes and code categories that were then stored in tables. The processes were the loading of the codes and code categories into *RQDA*, the connection of codes to code categories, and the scripted and manual application of codes to the units of analysis, the paragraphs. I followed the classical 2-level hierarchical coding structure of a set of code categories (also called themes or dimensions) and where each code category contains a set of codes (Creswell, 2007, p. 153). I represent graphically this process in Figure 3.8 by the red box “apply codes to paragraphs” and the brown box “create QDA codes.”

In QDA the interpretation and thoughts of the researcher are much more pre-eminent than in quantitative analysis, thus any automatic application of codes (auto-coding) was but a preliminary step that had to be followed by a careful reading of

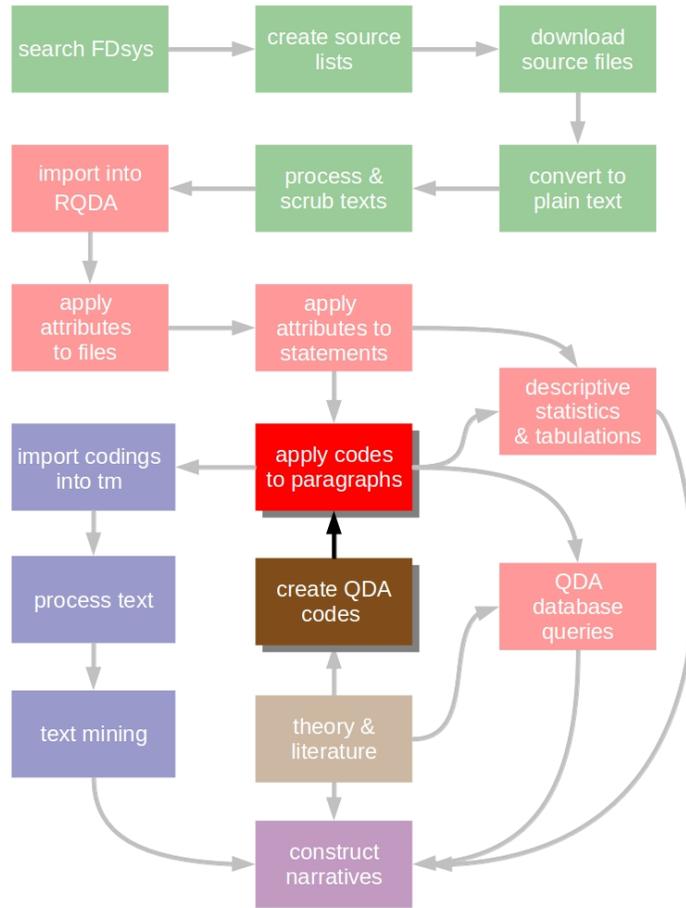


Figure 3.8: Data Coding

the texts where I confirmed applied codes (true positives) or removed them (false positives), or manually added them (false negatives).

The accuracy and reliability of the coding is a crucial factor in the validity of qualitative research (Creswell, 2007, pp. 201–213). Being the single coder in this research project I could not avail myself of concepts and practices such as ‘inter-coded reliability’ that are common in qualitative research. Instead I maximized the reliability of the coding process by (1) having precise definitions of the codings (Table

B.1, p. 502), (2) avoiding as much as possible ‘semantic overlaps’ between different codes, (3) creating detailed lists of relevant word patterns for each code,⁴⁷ and (4) using pre-coding *R* scripts that applied codings based on these word patterns. In addition, I rechecked the codings after a certain period of time as if I were a different coder.

Based on the chosen discourse analysis theory, *governmentality* and a preliminary reading of the texts, I developed a set of 39 *a priori* codes and code categories that were applied to the unit of QDA analysis, the paragraph. I chose to perform *a priori* coding instead of open coding because the theoretical framework already provided them, albeit indirectly. The codes and code categories were “abstracted” by me from the literature and adapted to the specifics of this research project.

The methodology of the qualitative research flows naturally from the theoretical framework, i.e. Foucault’s *governmentality*. However, the theory is a development of Foucault’s *genealogy* and genealogy itself is a form of *discourse analysis*. Hence the general theory and methods of discourse analysis apply to this investigation.

The starting point of the process of creation of code categories was the definitions of *governmentality* given by Michel Foucault himself (Foucault, 2009, pp. 108–109). Interestingly, Foucault did not give only one definition, but rather three (Subsection 2.4). We should recall that Foucault never published a book on governmentality and what we know about this concept is from a two series of lectures by him who were recorded and then transcribed and published in a book format (Subsection 2.4).

The codes were obtained *inductively* from a pilot study of the documents in conjunction with a *deductive* process based on the theory of governmentality. To help me in this process of “abstraction” of themes (code categories) and codes I created a flow chart based on the three definitions of governmentality (Figure 3.9, p. 80) where I conceptually connected the components of Foucault’s three definitions

of *governmentality*. In addition I composed a Table (3.3, p. 81) where I try to systematize the concepts of governmentality. For thoroughness I consulted both the original French and the translations of Foucault's definitions.

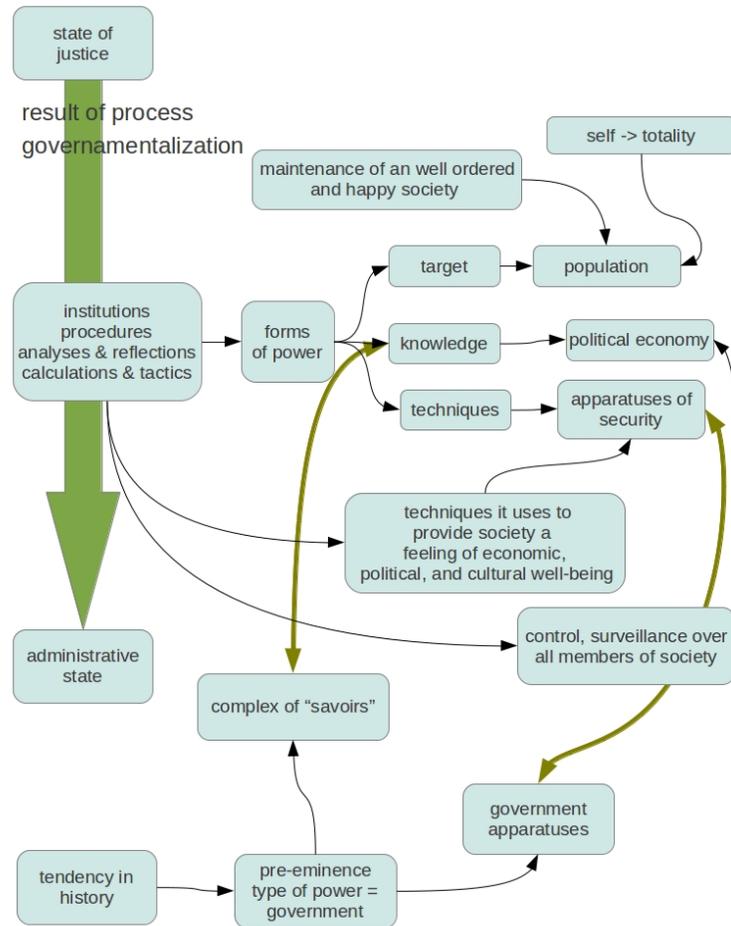


Figure 3.9: Conceptualization of Governmentality

I developed a glossary of the terms used in Foucault's theory of governmentality that guided and assisted me in assigning codes and codes into code categories. Some

Table 3.3: Breakdown of Dimensions

Concepts	Dimensions
target = population	I
institutions = government apparatuses = apparatuses of security	I, II
procedures	I, II
analyses & reflections (savoirs)	I, II
calculations & tactics (savoirs)	I, II
form of knowledge = political economy = complex of “savoirs”	I, II
result of the process of governmentalization	III

were verbatim statements from online resources and others were rewritten by me.

A. Practices of government

Practices of government are deliberate attempts to shape conduct in certain ways in relation to certain objectives. Attempts at governing may be formally rationalized in programmatic statements, policy documents, pamphlets and speeches (Rose, 1999, p. 4).

B. Governmentality

Process through which a form of government with specific ends (a happy and stable society), means to these ends (“apparatuses of security”), and with a particular type of knowledge (“political economy”), to achieve these ends, evolved from a medieval state of justice to a modern administrative state with complex bureaucracies. (Burchell, 1991, p. 102)

To analyse government is to analyse those mechanisms that try to shape, sculpt, mobilise and work through the choices, desires, aspirations, needs, wants and lifestyles of individuals and groups (Dean, 2009, p. 20).

C. Knowledge = savoir

Foucault encourages us to think of power not only in terms of hierarchical, top-down

power of the state. he widens our understanding of power to also include the forms of social control in disciplinary institutions (schools, hospitals, psychiatric institutions, etc.), as well as the forms of knowledge. power can manifest itself positively by producing knowledge and certain discourses that get internalised by individuals and guide the behavior of populations. this leads to more efficient forms of social control, as knowledge enables individuals to govern themselves.

D. Neo-liberal governmentality

A particular form of governmentality is characterized by a certain form of knowledge (“savoir” in French). In the case of neoliberal governmentality (a kind of governmentality based on the predominance of market mechanisms and of the restriction of the action of the state) the knowledge produced allows the construction of auto-regulated or auto-correcting selves (Foucault, 2009, pp. 383–384 and Foucault, 2010).

Thus neo-liberalism must work to create the social reality that it proposes already exists. For as Lemke states, a mentality of government “is not pure, neutral knowledge that simply re-presents the governing reality” (Lemke, 2001) instead, neo-liberalism constitutes an attempt to link a reduction in state welfare services and security systems to the increasing call for subjects to become free, enterprising, autonomous individuals. It can then begin to govern its subjects, not through intrusive state bureaucracies backed with legal powers, the imposition of moral standards under a religious mandate, but through structuring the possible field of action in which they govern themselves, to govern them through their freedom. Through the transformation of subjects with duties and obligations, into individuals, with rights and freedoms, modern individuals are not merely ‘free to choose’ but obliged to be free, “to understand and enact their lives in terms of choice” (Rose, 1999, p. 87). This freedom is a different freedom to that offered in the past. It is a freedom to realize our potential and our dreams through reshaping the way in which we conduct

our lives.

E. Apparatuses ('dispositif')

Foucault generally uses this term to indicate the various institutional, physical and administrative mechanisms and knowledge structures, which enhance and maintain the exercise of power within the social body. The original French term 'dispositif' is rendered variously as 'dispositif,' 'apparatus,' and 'deployment' in English translations of Foucault's work.

F. Apparatuses of security

Techniques the government uses to provide this society a feeling of economic, political, and cultural well-being.

G. Crises of governmentality

A period of crisis, where the logic of ensuring freedom (which was defined against the background of risk or danger) necessitates actions "which potentially risk producing exactly the opposite."

H. Technology, technique, techne Foucault defines the Greek word 'techne' as 'a practical rationality governed by a conscious aim.' Foucault generally prefers the word 'technology,' which he uses to encompass the broader meanings of techne. Foucault often uses the words techniques and technologies interchangeably, although sometimes techniques tend to be specific and localized and technologies more general collections of specific techniques.

Four major types of these "technologies," each a matrix of practical reason: (i) technologies of production, which permit us to produce, transform, or manipulate things; (2) technologies of sign systems, which permit us to use signs, meanings, symbols, or signification; (3) technologies of power, which determine the conduct of individuals and submit them to certain ends or domination, an objectivizing of the

subject; (4) technologies of the self, which permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality.⁴⁸

I. Technologies of power

Technologies imbued with aspirations for the shaping of conduct in the hope of producing certain desired effects and averting certain undesired ones” (Rose, 1999, p. 52). The two main groups of technologies of power are **technologies of the self**, and **technologies of the market**. Foucault defined technologies of the self as techniques that allow individuals to effect by their own means a certain number of operations on their own bodies, minds, souls, and lifestyle, so as to transform themselves in order to attain a certain state of happiness, and quality of life. Technologies of the market are those technologies based around the buying and selling of goods that enable us to define who we are, or want to be. These two technologies are not always completely distinct, as both borrow bits of each other from time to time.

J. Technology of power - normalization

Another technology of power arising from the social sciences is that of normalisation. The technology of norms was given a push by the new methods of measuring population. A norm is that “which is socially worthy, statistically average, scientifically healthy and personally desirable.” The important aspect of normality, is that while the norm is natural, those who wish to achieve normality will do so by working on themselves, controlling their impulses in everyday conduct and habits, and inculcating norms of conduct into their children, under the guidance of others. Norms are enforced through the calculated administration of shame. Shame entails an anxiety over the exterior behaviour and appearance of the self, linked to an injunction to

care for oneself in the name of achieving quality of life (Rose, 1999, p. 73). Norms are usually aligned with political goals, thus the norm would be fit, virile, energetic individuals, able to work, earn money, and spend it and thus sustain the economy. For instance, the practice of going to the gym allows one to achieve this 'normality.' Through shame we are governed into conforming with the goals of neo-liberalism.

K. Technology of identity through consumption

The technology of identity through consumption utilises the power of goods to shape identities.

L. Technologies of the self

Practices and strategies by which individuals represent to themselves their own ethical self-understanding. One of the main features of technologies of self is that of expertise. Expertise has three important aspects. First, its grounding of authority in a claim to scientificity and objectivity creates distance between self-regulation and the state that is necessary with liberal democracies. Second, expertise can “mobilise and be mobilised within political argument in distinctive ways, producing a new relationship between knowledge and government. expertise comes to be accorded a particular role in the formulation of programs of government and in the technologies that seek to give them effect” (Rose, 1998, p. 156). Third, expertise operates through a relationship with the self-regulating abilities of individuals. The plausibility inherent in a claim to scientificity binds “subjectivity to truth and subjects to experts” (Rose, 1998, p. 156). Expertise works through a logic of choice, through a transformation of the ways in which individuals constitute themselves, through “inculcating desires for self-development that expertise itself can guide and through claims to be able to allay the anxieties generated when the actuality of life fails to live up to its image.” (Rose, 1999, p. 88)

M. Technology of responsabilisation

This entails subjects becoming responsabilised by making them see social risks such as illness, unemployment, poverty, etc. Not as the responsibility of the state, but actually lying in the domain for which the individual is responsible and transforming it into a problem of ‘self-care’ (Lemke, 2001). The practice of going to the gym can be seen as a result of responsabilisation, our responsibility to remain free of illness so as to be able to work and to care for our dependants (children, elderly parents etc.). This technology somewhat overlaps with the technology of healthism.

N. Régime of truth

Foucault defines ‘régimes of truth’ as the historically specific mechanisms which produce discourses which function as true in particular times and places.

O. Political economy

“... economy at the level of the entire state, which means exercising towards its inhabitants, and the wealth and behavior of each and all, a form of surveillance and control as attentive as that of the head of a family over his household and his goods.” (Burchell et al., 1991, p. 92)

At this point I could create my code categories and I listed them in Table 3.4. This classification of themes is based on my personal ‘distillation’ of Foucault’s treatment of *governmentality* and that of his successors (e.g. Dean, Burchell, and Rose). *GovGoal* stands for “goals of governmentality,” *GovKnowledge* for “knowledge of governmentality”, *GovMeans* for “means of governmentality,” and *AdminTendency* for “historical tendency, outcome of historical process” leading to the ‘administrative state.’ These categories are common for both document collections.

Following this was the creation of the codes and their assignment to code categories. The result of this process is shown in Table 3.5.

Table 3.4: Code Categories

Name	Description
NationGoal	Goal of the nation, society to be prosperous and stable
Rationality	Rationality, conceptualization of government, of society
TechPower	Technology of power, procedures, institutions
TechSelf	Technology of self, conduct of one self
AdminTendency	Historical tendency towards an administrative state

Table 3.5: QDA Codes and Categories

Id	Code Name	Category
1	ControlFed	Rationality
2	ControlLocal	Rationality
3	ControlState	Rationality
4	EducAchiev	Rationality
5	EducEquity	Rationality
6	EducGap	Rationality
7	EducFunding	TechPower
8	EducMathSci	Rationality
9	EducResearch	Rationality
10	EducStandard	Rationality
11	NationBestFirst	Rationality
12	NationDuty	Rationality
13	NationEcon	Rationality
14	NationInterest	Rationality
15	NationInternComp	Rationality
16	NationProsperity	NationGoal
17	NationTech	Rationality
18	ParentInvolve	TechSelf
19	SchoolAccount	TechPower
20	SchoolBizInput	Rationality
21	SchoolCharter	TechPower
22	SchoolChoice	TechPower
23	SchoolDiversity	Rationality
24	SchoolFixclose	TechPower
25	SchoolQuality	Rationality
26	SchoolReform	TechPower

Table 3.5: Continued

Id	Code Name	Category
27	StudentAll	Rationality
28	StudentAssess	TechPower
29	StudentCareer	TechSelf
30	studentCollege	TechSelf
31	StudentExpectation	TechSelf
32	StudentGraduation	TechSelf
33	StudentPoverty	NationGoal
34	TeacherApprec	Rationality
35	TeacherAssess	TechPower
36	TeacherCert	TechPower
37	TeacherProfdev	TechPower
38	TeacherQuality	Rationality
39	TeacherReplace	TechPower

A description of these codes is given in Table B.1 (p. 502).

The development of the codes and code categories was an interactive process where I combined the analysis of the theory with the appraisal of the content of the data sources. At the end of the process I did not need the fifth code category. I obtained 39 codes that are listed in Table 3.5. After all the codes were applied, it was possible to obtain summary results as described in Appendix C.

Now returning to Creswell's (2007, p. 151) analysis spiral, we have reached the final phase of this analysis spiral where the researchers will present their findings. This can be done in textual, tabular, and graphical form. Usually the report or paper will contain a mixture of these three representations. The final product may be in the form of a narrative, a hypothesis, or a set of propositions. Again, often the final product consists of a melange of these forms.

Summary statistics of the codings

The research project included some statistical analysis, descriptive statistics, of the codings. In the social sciences the two more common types of statistics are descriptive and inferential (e.g. Glass & Hopkins, 1996, p. 2). The first type can be applied

to almost all numerical data regardless of how it is collected. The second type can only be used with experimental and quasi-experimental data. I only use descriptive statistics in the present type of research.

The key to the application of statistics in QDA is the generation of numerical data. The software package that I used for QDA, *RQDA*,⁴⁹ is able to generate the following descriptive statistics from the paragraph codings: (1) number of codings for each code, (2) average number of characters in codings for each code, (3) number of files coded for each code, and (4) number of codings for each file.

In addition to these numerical data, cross-code frequencies were calculated. These frequencies provide a numerical representation of the relations between codes by assuming that when the same paragraph is coded by more than one code, those codes are related. These relations can be diagrammatically represented by undirected weighted network graphs and numerically by upper triangular matrices. Due to the many overlaps, the graphical representation was confusing and uninformative. Hence I have not included it here.

The final descriptive statistic that I computed is the distribution and frequency of codes in the documents over time. This type of distribution is best displayed by scatter plot. I used the *R* graphics package *ggplot2*.⁵⁰ These plots display a regression curve that was computed using the LOESS method, a local polynomial regression fitting across a certain “span” value (the default is 0.75). I provide these regression curves for illustrative purposes only. They offer a representation of the trend of the frequencies over time. The goal of a “real” regression line or curve is to provide the best approximation of the actual underlying behavior of a phenomenon. Such is not the purpose in our case, thus these curves should only be used with caution. For details see Appendix C. Figure 3.10 shows these operations by the red box “descriptive statistics & tabulations”.

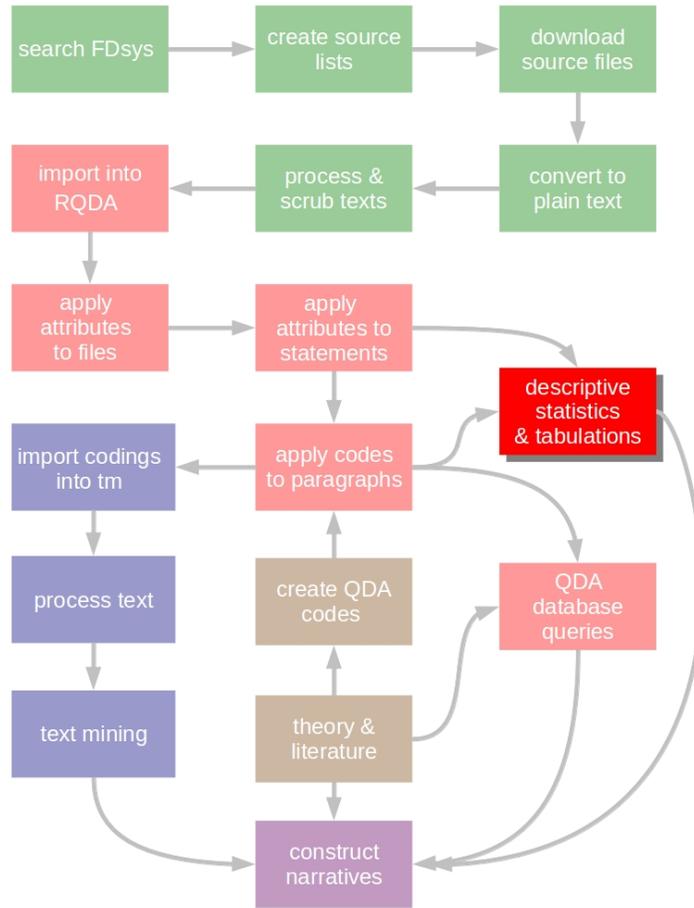


Figure 3.10: Descriptive Statistics of Codings

3.6 Quantitative Data Analysis

The next phase of the research was quantitative, more specifically the ‘text mining’. What can such an analysis provide to a study in educational policy? Among the advantages is the capacity of analyzing large amounts of text. Another positive aspect is the automated analysis. Human judgment, distraction, mistakes, and biases do not play a part in the extraction of type of text information. Monroe and Schrodtt (2008) discussed the use of statistical analysis of political texts, their advantages and

their limitations. Recently Graesser, McNamara, and Kulikowich (2011) stated that

Automated analysis of the language and discourse characteristics of texts have enormous practical value in education, in addition to advancing scientific theories of reading and comprehension.

We have to bear in mind that if in social sciences we intend to perform a quantitative study we are restricted to a relatively small set of data that are numeric or can be converted into a numeric form. The reality is that the vast majority of data that social scientists are interested in are in text form and thus beyond the reach of a conventional quantitative analysis. The possibility of somehow obtaining, abstracting, or extracting information of this large repository of data can be of great value.

I decided to perform text mining only on the coded paragraphs and not the documents *in toto* to provide a numerical counterpart to the codings. Hence the qualitative and quantitative analyses were performed on precisely the same texts. Thus, the first step was to export the contents of the coded paragraphs from QDA software, *RQDA*, and import them into the text mining package *tm*. This operation is represented by the blue box “import codings into tm” in Figure 3.11.

The next step was the processing of the texts. In this phase the following transformations were performed: (1) conversion to lower case, (2) removal of punctuation, of (3) numbers, of (4) white spaces, and (5) stop words. These were words such as “a(n)”, “the”, “that”, and “and” that provide little if any information about the texts. There was a further transformation, stemming, where words are reduced to their base semantic value. E.g. the words “achievement”, “achieve”, and “achieving” are all reduced to “achiev”. However, to produce “word clouds” there was no stemming. The final product of text processing was the creation of a term-document

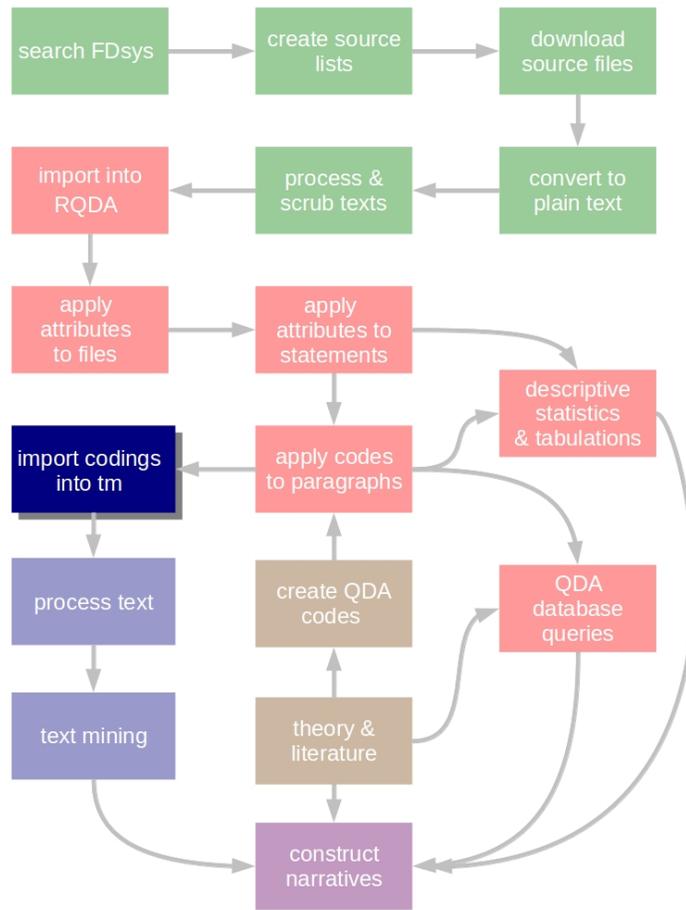


Figure 3.11: Importing Codings into *tm*

matrix, where the rows correspond to terms and the columns to documents. This matrix can be reduced in size by removing sparse terms. Some transformations required high computing power such as the stemming of the high content words. In that case I availed myself of the *Brazos* high performance computer cluster.⁵¹ This operation is represented by the blue box “process text” in Figure 3.12.

The next step was the text mining proper. I performed the following analyzes: (1) word and word-group frequencies, represented by tables, matrices, and cloud maps;

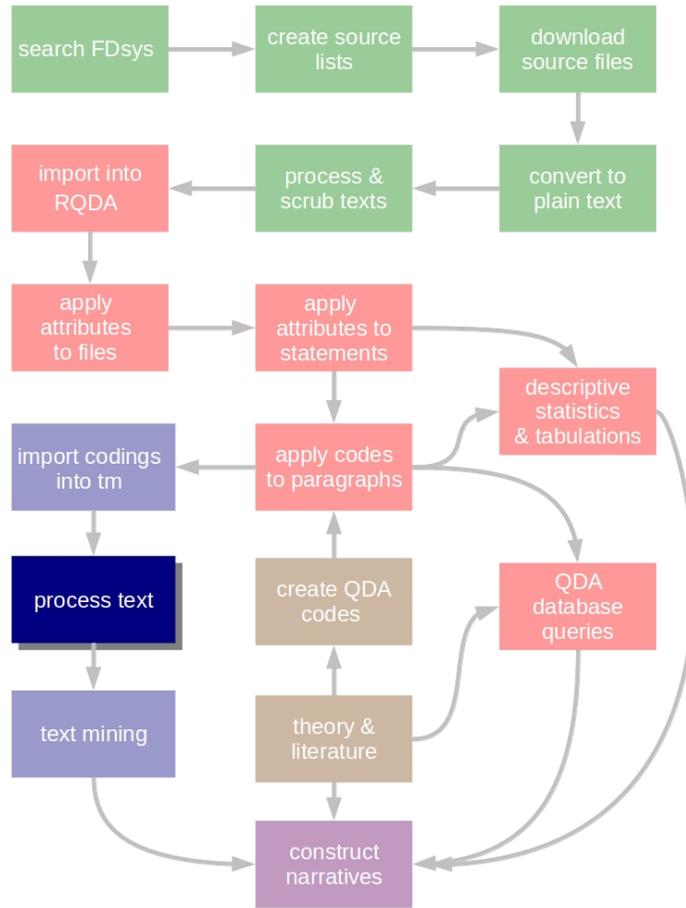


Figure 3.12: Process Text

(2) word and word-group associations, represented by upper triangular matrices; (3) hierarchical clustering, represented by dendrograms; (4) word and word-group frequencies by time stamp, represented by time-line diagrams; and (5) word and word-group distributions in the data sources, represented by tables and diagrams. This final operation is represented by the blue box “text mining” in Figure 3.13.

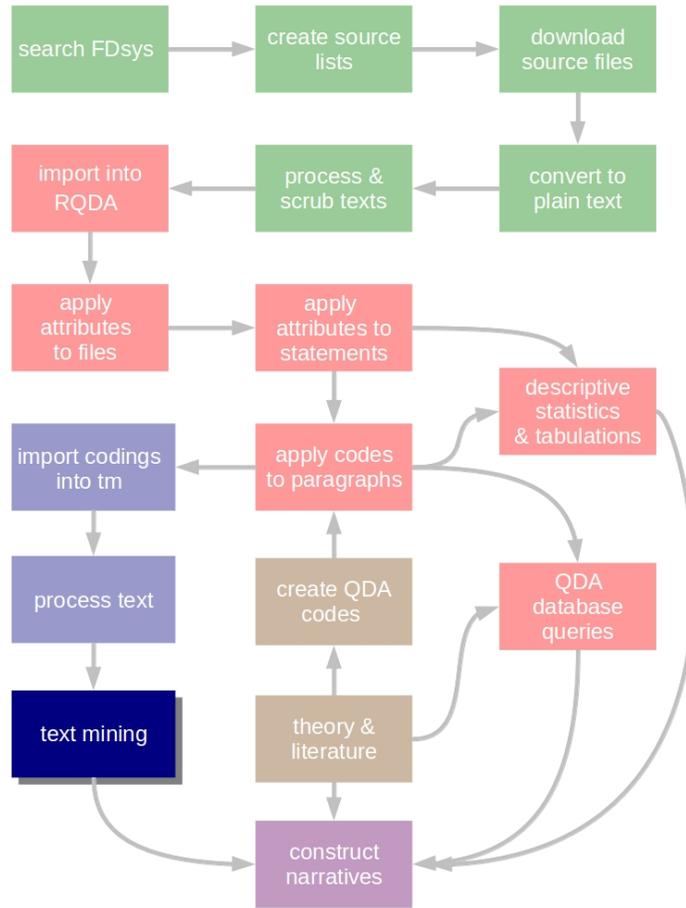


Figure 3.13: Text Mining

3.7 Construction of the Narratives

The final stage of the process consisted in the creation or construction of the narratives where I integrated the results of the QDA coding and descriptive statistics, the text mining, and the review of the relevant literature. The red box “QDA database queries,” the brown box “theory & literature,” and the purple box “construct narratives” in Figure 3.14 represents this series of operations.

To give an organization and format to these narratives that will be presented

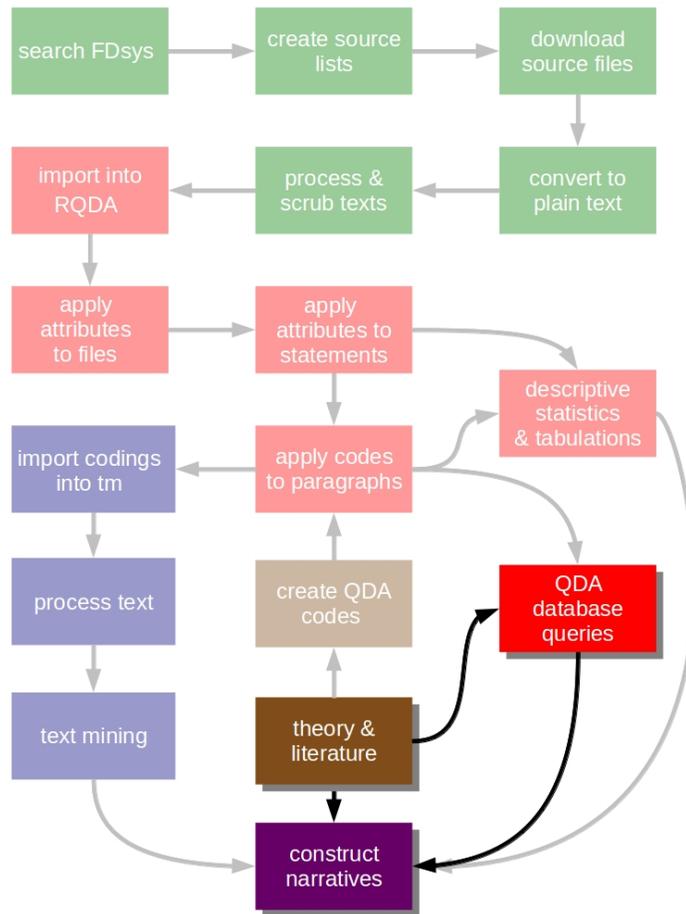


Figure 3.14: Narrative Construction

in Section 5, I structured them according to the three dimensions (definitions) of Foucault’s governmentality (Subsection 2.5). I named the first dimensions “The Ensemble,” the second “The Tendency,” and the third “The Process.” The strategy was to conceptually connect the definitions with specific database queries, which would generate chronological lists of texts that were relevant to the research question. From these texts, policy statements, I culled out and weaved into strands the narratives.

The database queries were actualized by *R* scripts that encapsulated SQL (Struc-

tured Query Language)⁵² code. SQL is a computer language that implements the mathematics set theory and is applied to query electronic data. These SQL queries can be represented using Boolean expressions⁵³ and Venn diagrams.⁵⁴ I will represent the queries using both a Boolean expression and a Venn diagram if they are relatively simple, otherwise I will only show Venn diagrams. These diagrams will be simplified when possible because Venn diagrams can only show correctly a maximum of three sets.

3.7.1 *The First Dimension* - The Ensemble

The first dimension is defined as a “complex form of power that is allowed by an ensemble of institutions, procedures, analyses and reflections, and calculations and tactics and is exercised on the population through the apparatuses of security and having political economy as form of knowledge.”

Here I show conceptually and graphically connections that I made between the items of the first dimension and the items of the first dimension of governmentality.

To query the database for the definition item “Procedures” I performed the following set operation

EducFunding AND *SchoolAccount* AND (*SchoolFixClose* OR *StudentAssess*
OR *TeacherAssess*)

This query can be more clearly represented by a Venn diagram (Figure 3.15) where I represent the OR (set union) operation by placing the sets in the same ellipse.

For the item “Analyses and Reflections” the query was too complex to be represented as a Venn diagram

(*EducEquity* OR *EducGap*) AND (*NationBestFirst* OR *NationDuty* OR

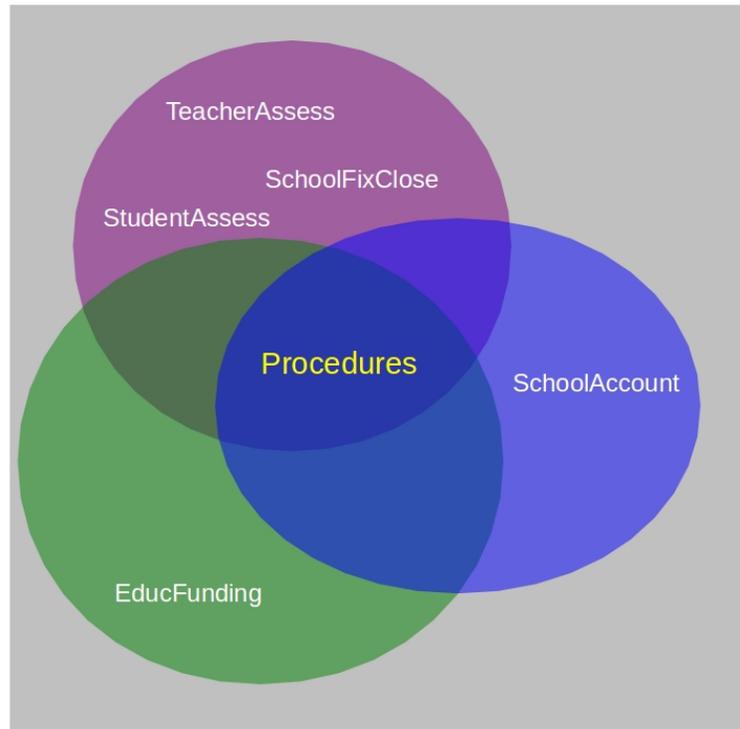


Figure 3.15: Venn Diagram - “The Process” - Procedures

NationInterest) OR (*EducEquity* OR *EducGap*) AND (*SchoolAccount*
OR *SchoolQuality* OR *StudentExpectation* OR *TeacherQuality*)

The query for “Calculations & Tactics” is shown in Figure 3.16

The query for “Population” is shown in Figure 3.17

The query for “Form of knowledge” is shown in Figure 3.18

The last query for this dimension was for the “Apparatuses of security” is shown in Figure 3.19

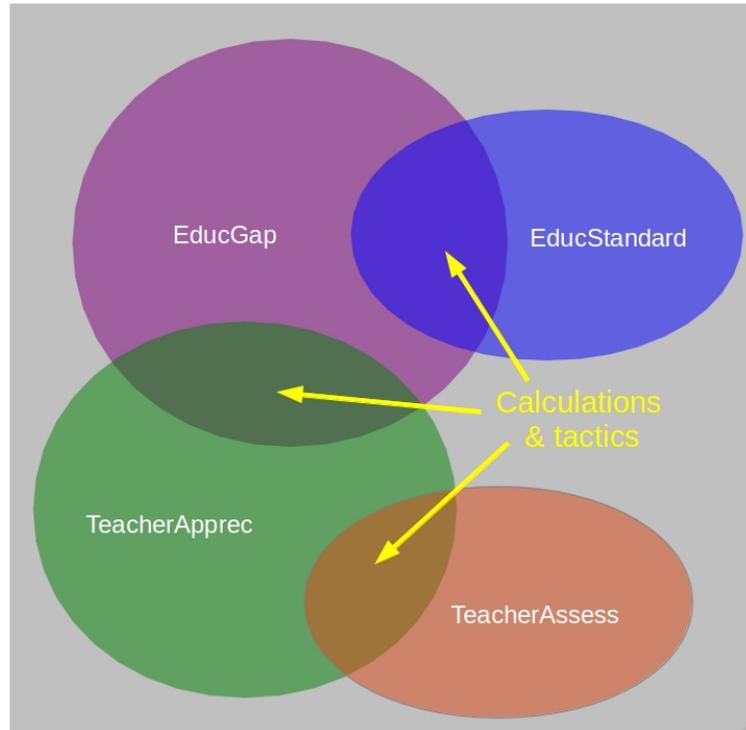


Figure 3.16: Venn Diagram - “The Process” - Calculations & Tactics

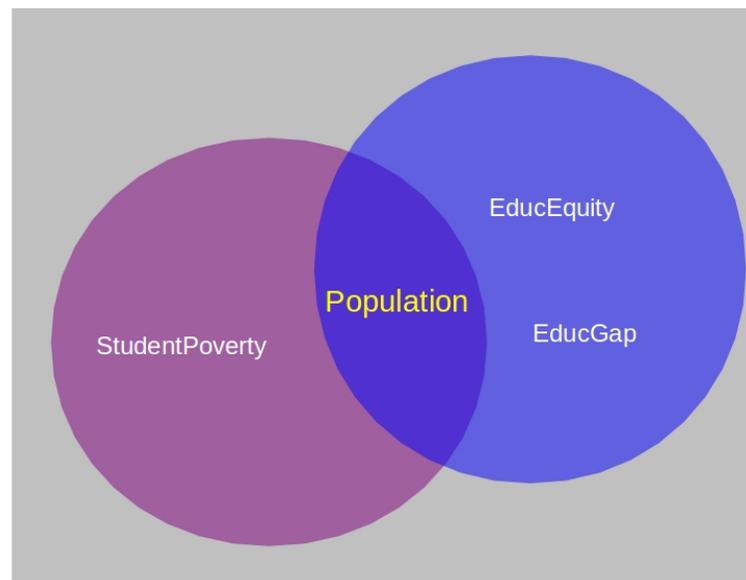


Figure 3.17: Venn Diagram - “The Process” - Population

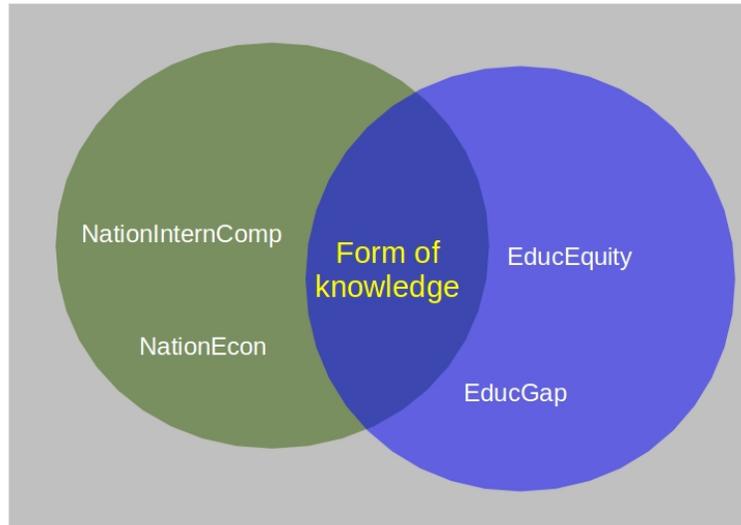


Figure 3.18: Venn Diagram - “The Process” - Form of Knowledge

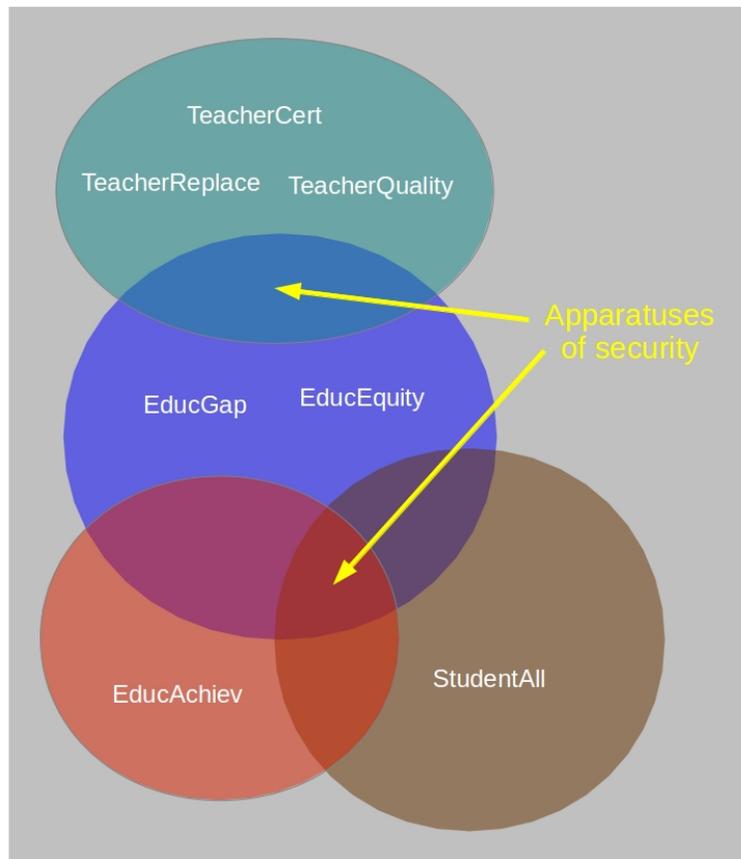


Figure 3.19: Venn Diagram - “The Process” - Apparatuses of Security

3.7.2 The Second Dimension - The Tendency

The second dimension is defined as “the tendency of the government to become pre-eminent over other forms of power.” I systematized the second dimension differently from the first one because the definition does not have distinct items as in the previous case. I adapted the definition to the subject at hand by employing the QDA codes that refer to the political and administrative control of education. The database query can be expressed by the following Boolean expression

$$(EducGap \text{ OR } EducEquity) \text{ AND } (ControlFed \text{ OR } ControlState \text{ OR } ControlLocal)$$

The Venn diagram for this database query is shown in Figure 3.20.

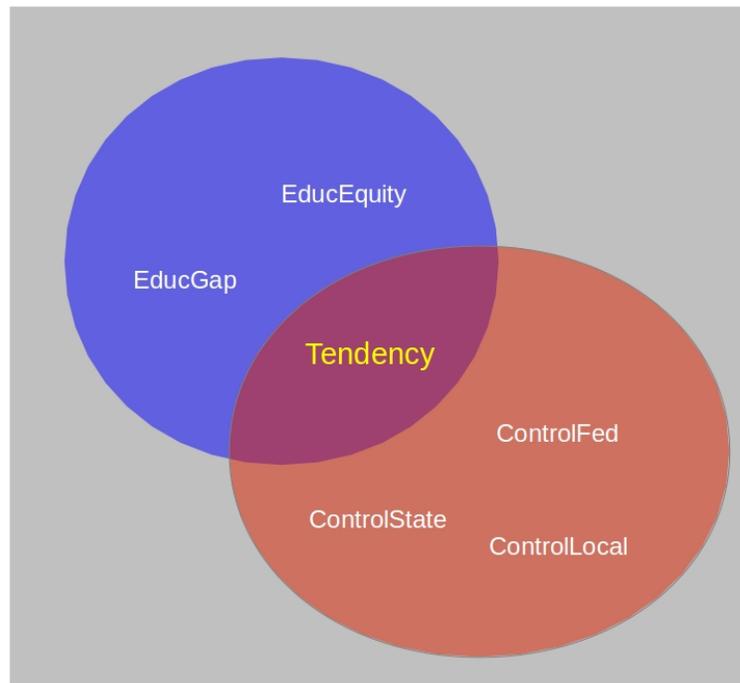


Figure 3.20: Venn Diagram - “The Tendency”

3.7.3 *The Third Dimension - The Process*

The third dimension is defined as the “result of the process of transformation into the administrative state.” As in the previous case, the definition is ‘compact’ and I had thus to ‘unpack’ it using my personal judgment. I decided to look at the following aspects of education policy

1. Local or state versus federal control
2. Control of education and the economy
3. Control of education and funding
4. Control of education and testing
5. Control of education and accountability
6. Control of education and school intervention

The query the database for the first aspect, “Local and state control versus federal control,” is shown in the Venn diagram presented in Figure 3.21.

The query the database for the second aspect, “Control of education and the economy,” is shown in the Venn diagram presented in Figure 3.22.

The query the database for the third aspect, “Control of education and testing,” is shown in the Venn diagram presented in Figure 3.23.

The query the database for the fourth aspect, “Control of education and testing,” is shown in the Venn diagram presented in Figure 3.24.

The query the database for the fifth aspect, “Control of education and accountability,” is shown in the Venn diagram presented in Figure 3.25.

The query the database for the sixth aspect, “Control of education and school intervention,” is shown in the Venn diagram presented in Figure 3.26.

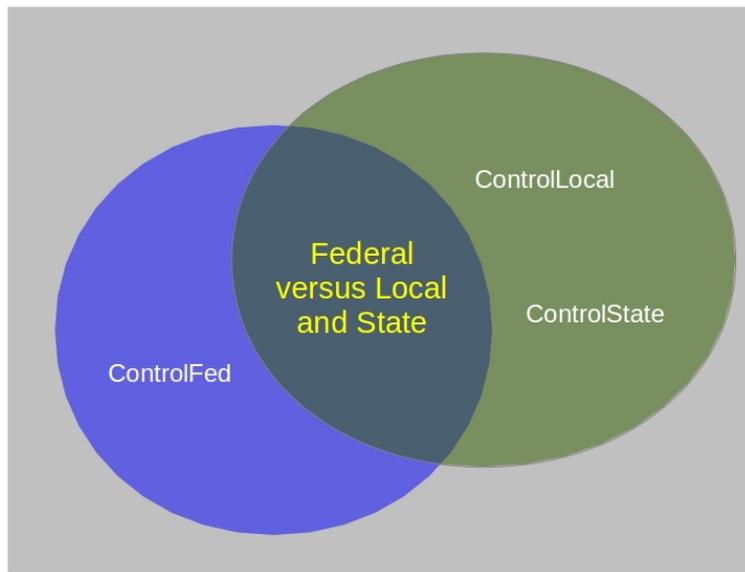


Figure 3.21: Venn Diagram - “Local or State Control versus Federal Control”

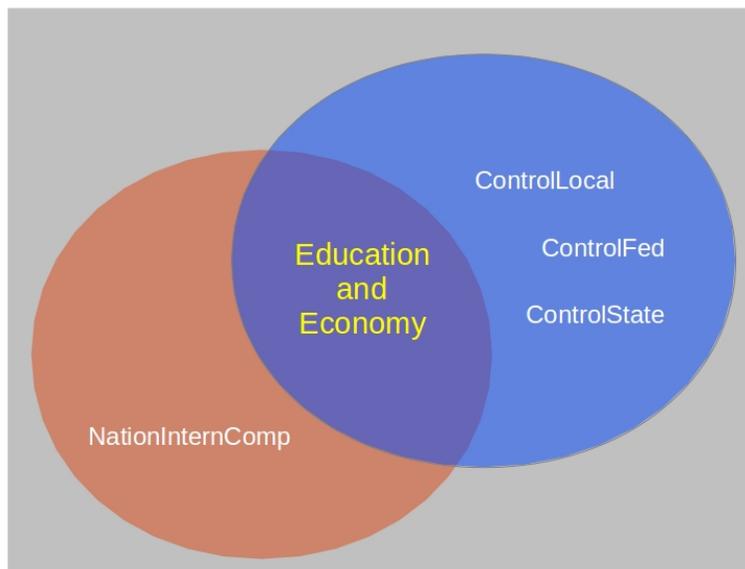


Figure 3.22: Venn Diagram - “Control of Education and the Economy”

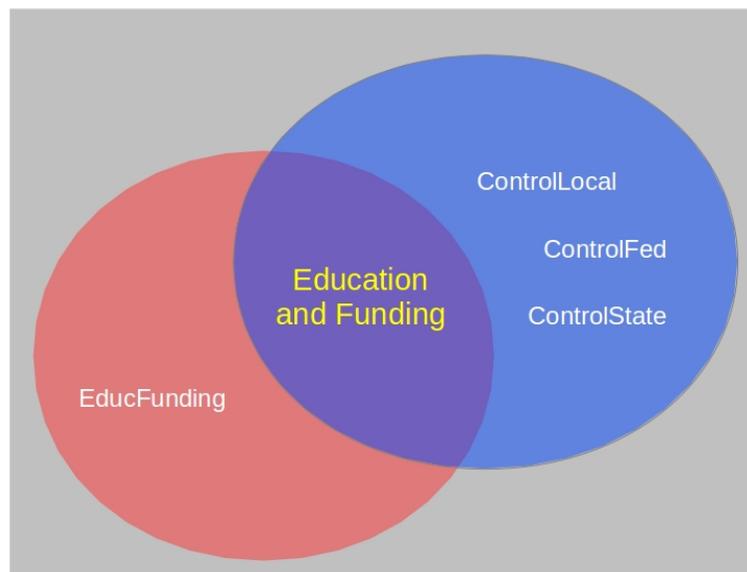


Figure 3.23: Venn Diagram - “Control of Education and Funding”

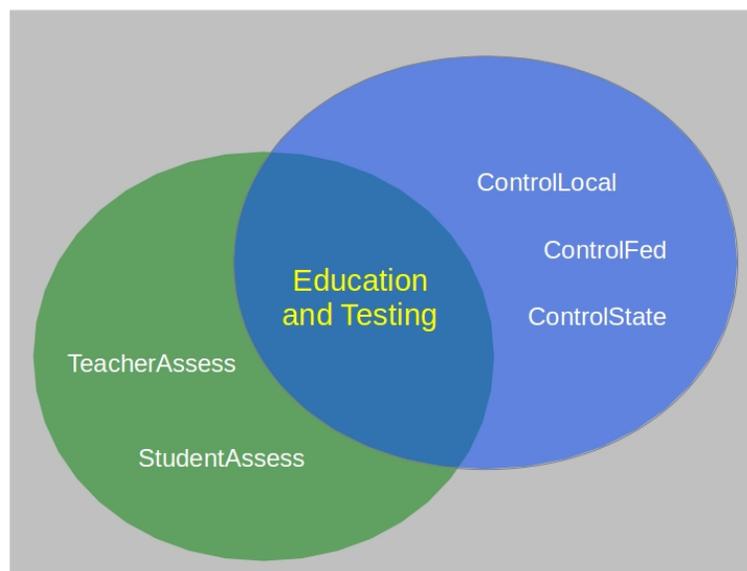


Figure 3.24: Venn Diagram - “Control of Education and Testing”

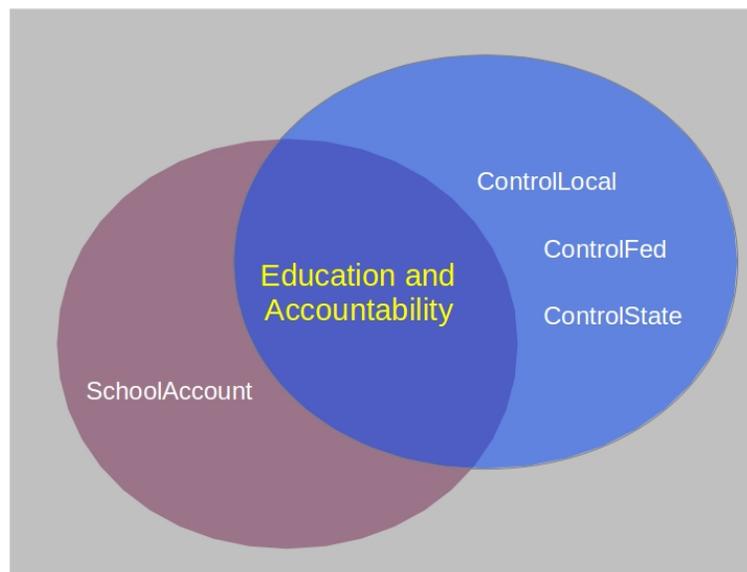


Figure 3.25: Venn Diagram - “Control of Education and Accountability”

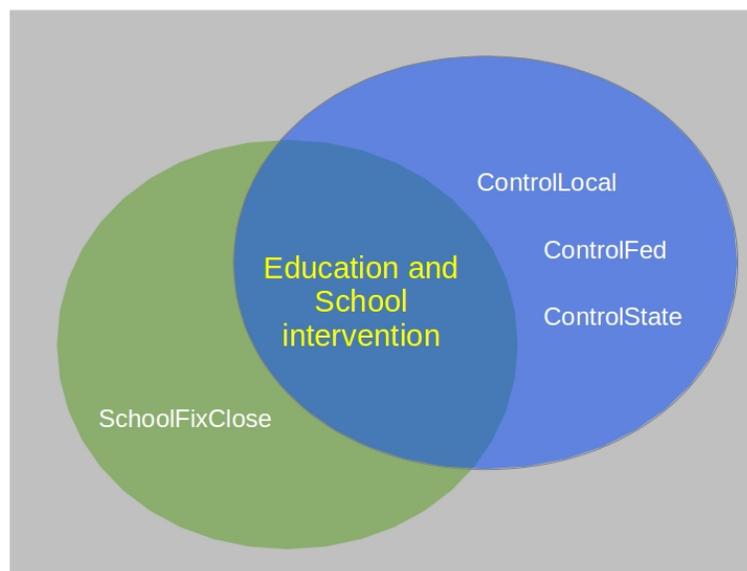


Figure 3.26: Venn Diagram - “Control of Education and School Intervention”

Thus, at the completion of the tagging of the statements, the coding of the paragraphs, the coding descriptive statistics, the text mining, and the QDA database queries, the structured sources of the narrative strands were ready to be woven into the narrations, as it will be shown in Section 5.

4. FINDINGS

4.1 Introduction

In the previous section I described the various operations that were implemented to generate the data that were to be employed in the construction of the narratives that would answer the research question.

The purpose of this section is to present these data with the understanding that they are but “raw” data that by themselves provide only a hint of the shape that the narratives will assume in the next section. On the other hand, the research process produced a copious amount of data as can be seen in Figure 4.1 (p. 107). The rationale for this section is not to provide “information,” but rather a background, a context, a canvas that is necessary to position and ground the discussion of the data that will take place in the following section. Hence, I decided to place in this section the data, either in tabular or graphical form, that are going to be referenced more than once in the discussion section, while tabular and graphical data that are only cited once in the next section will be presented in their immediate context.

Recall from the previous subsection (3.3 and Table 3.1) that the data were retrieved and organized according to level of depth of analysis: collection, file, statement, paragraph, and word. As described in that section, I chose for this investigation one type of official document for the executive branch, the Presidential documents, and another type, the Congressional hearings, for the legislative branch of the federal government.

In Figure 4.1 the number of files refers to the unique documents loaded into *RQDA*, the number of statements pertain to statements where at least one paragraph was coded, the number of paragraphs refers to the paragraphs that were coded, and

Level	Presidential documents	Congressional hearings	Total
Collection	1	1	2
File	127	87	214
Statement	131	459	590
Paragraph	4,779	18,513	23,292
Word	3,752	10,225	13,977

Figure 4.1: Levels of Analysis - Number of Results (log scale)

the number of words were the words in the each of the two text mining *corpora* after text processing.

The data presented in the following sections are organized according to level of detail, starting from the highest one. In addition each section is divided into two subsections, one for each of the two document collections.

4.2 The Searched Document Collections and Their Documents

In this subsection I present the results of the FDsys, the federal on-line database, searches that were loaded into the QDA software application. Each document was tagged with a reference code, a date, and a title as shown in the following tables.

4.2.1 *The Presidential Documents*

The database search provided the results for three presidents, William Clinton, George W. Bush, and Barack Obama. Note that the file IDs are of two types, one starting with “DCPD” and one starting with “WCPD.” The second type of ID

contains the date of publication, which is usually just a few days after the date of the speeches themselves and is displayed in the third column of tables. The first type of ID contains only the year of publication.

Table 4.1 (p. 108) shows the speeches by President Barack Obama. Table 4.2 (p. 109) shows the speeches by President William Clinton. Table 4.3 (p. 109) shows the speeches by President George W. Bush.

The following presidential document is a presidential debate between President George W. Bush and Senator John Kerry held in 2004-10-13

- WCPD-2004-10-18-Pg2364, “Presidential debate in Tempe, Arizona”

Table 4.1: Presidential Documents by Barack Obama

File ID	Title	Date
DCPD-200900575	Remarks celebrating the 100th anniversary of the NAACP in NYC	2009-07-16
DCPD-200900595	Remarks on education reform	2009-07-24
DCPD-200900884	Remarks to students, faculty, and parents at James C. Wright Middle School in Madison, Wisconsin	2009-11-04
DCPD-201000036	Remarks at Graham Road Elementary School in Falls Church, VA	2010-01-19
DCPD-201000130	Remarks on signing an executive order regarding Historically Black Colleges and Universities	2010-02-26
DCPD-201000636	Remarks at the National Urban League Centennial Conference	2010-07-29
DCPD-201000812	Remarks and a Question-and-Answer session in Richmond, VA	2010-09-29
DCPD-201100172	Remarks at Kenmore Middle School in Arlington, VA	2011-03-14

Table 4.2: Presidential Documents by William Clinton

File ID	Title	Date
WCPD-1999-05-31-Pg964	Message to Congress transmitting	1999-05-31
WCPD-1999-05-31-Pg964	the proposed 'Educational Excellence for All Children Act of 1999'	
WCPD-2000-06-19-Pg1366-4	Remarks at the White House	2000-01-15
WCPD-2000-06-19-Pg1366-4	strategy session on improving Hispanic student achievement	

Table 4.3: Presidential Documents by George W. Bush

File ID	Title	Date
WCPD-2001-01-29-Pg217	Remarks on submitting then education plan to Congress	2001-01-23
WCPD-2002-01-14-Pg36	Remarks on implementation of No Child Left Behind Act of 2001	2002-01-09
WCPD-2002-04-08-Pg551-2	Remarks at Pennsylvania State University, Delaware County, in media	2002-04-02
WCPD-2003-01-13-Pg39	Remarks on the anniversary of No Child Left Behind Act	2003-01-08
WCPD-2003-08-04-Pg984-2	Remarks to the National Urban League Conference in Pittsburgh, PA	2003-07-28
WCPD-2004-01-12-Pg28	Remarks in a discussion at West View Elementary School in Knoxville, Tennessee	2004-01-08
WCPD-2004-05-17-Pg856	Remarks at Butterfield Junior High School in Van Buren, AR	2004-05-11
WCPD-2004-08-16-Pg1561	Remarks in Phoenix, Arizona	2004-08-11
WCPD-2004-08-23-Pg1587	Remarks in a discussion at Southridge High School in Beaverton, OR	2004-08-13
WCPD-2004-08-23-Pg1631	Remarks in Hedgeville, WV	2004-08-17
WCPD-2004-08-23-Pg1644-2	Remarks in discussion in Hudson, Wisconsin	2004-08-18

Table 4.3: Continued

File ID	Title	Date
WCPD-2004-08-30-Pg1669	The president's radio address	2004-08-21
WCPD-2004-08-30-Pg1679	Remarks in Farmington, NM	2004-08-26
WCPD-2004-09-06-Pg1720	Remarks in Troy, Ohio	2004-08-28
WCPD-2004-09-06-Pg1727	Remarks in a discussion in Lima, Ohio	2004-08-28
WCPD-2004-09-06-Pg1750	Remarks in Wheeling, WV	2004-08-29
WCPD-2004-09-06-Pg1757	Remarks in discussion in Nashua, New Hampshire	2004-08-30
WCPD-2004-09-06-Pg1773	Remarks in Taylor, Michigan	2004-08-30
WCPD-2004-09-06-Pg1790	Remarks in Columbus, Ohio	2004-09-01
WCPD-2004-09-13-Pg1819	Remarks in Cedar Rapids, Iowa	2004-09-03
WCPD-2004-09-13-Pg1839-2	Remarks in Kirkland, Ohio	2004-09-04
WCPD-2004-09-13-Pg1851	Remarks in Parkersburg, WV	2004-09-05
WCPD-2004-09-13-Pg1863-2	Remarks in Lee's Summit, MO	2004-09-07
WCPD-2004-09-13-Pg1869	Remarks in a discussion in Sedalia, Missouri	2004-09-07
WCPD-2004-09-20-Pg2000	Remarks in St. Cloud, Minnesota	2004-09-16
WCPD-2004-09-20-Pg2025	Remarks at a Victory Committee reception	2004-09-17
WCPD-2004-09-27-Pg2085	Remarks in a discussion on education in King of Prussia, Pennsylvania	2004-09-22
WCPD-2004-09-27-Pg2097	Remarks in Latrobe, PA	2004-09-22
WCPD-2004-09-27-Pg2126-2	Remarks in a discussion on education in Janesville, WI	2004-09-24
WCPD-2004-10-04-Pg2152-2	Remarks in a discussion on education in Springfield, Ohio	2004-09-27
WCPD-2004-10-11-Pg2223	Remarks in a discussion in Mansfield, Ohio	2004-10-02
WCPD-2004-10-11-Pg2244	Clive, Iowa	2004-10-04
WCPD-2004-10-11-Pg2276	Remarks in Wausau, Wisconsin	2004-10-07
WCPD-2004-10-18-Pg2312	Remarks at a breakfast for gubernatorial candidate	2004-10-09
WCPD-2004-10-18-Pg2312	Matt Blunt in Saint Louis, Missouri	
WCPD-2004-10-18-Pg2330	Remarks in Hobbs, New Mexico	2004-10-11
WCPD-2004-10-18-Pg2338	Remarks at a luncheon for senatorial candidate Pete Coors	2004-10-11
WCPD-2004-10-18-Pg2338	in Denver, Colorado	

Table 4.3: Continued

File ID	Title	Date
WCPD-2004-10-18-Pg2344	Remarks in Morrison, Colorado	2004-10-11
WCPD-2004-10-18-Pg2387	Remarks in Las Vegas, Nevada	2004-10-14
WCPD-2004-10-18-Pg2393	Remarks in Reno, Nevada	2004-10-14
WCPD-2004-10-18-Pg2399	Remarks in Central Point, OR	2004-10-14
WCPD-2004-10-18-Pg2405	Remarks in Cedar Rapids, Iowa	2004-10-15
WCPD-2004-10-25-Pg2425	Remarks in Sunrise, Florida	2004-10-16
WCPD-2004-10-25-Pg2455-2	Remarks in St. Petersburg, FL	2004-10-19
WCPD-2004-10-25-Pg2522-2	Remarks in Wilkes-Barre, PA	2004-10-22
WCPD-2004-11-01-Pg2543	Remarks in Fort Myers, Florida	2004-10-23
WCPD-2004-11-01-Pg2549	Remarks in Lakeland, Florida	2004-10-23
WCPD-2004-11-01-Pg2555	Remarks in Melbourne, Florida	2004-10-23
WCPD-2004-11-01-Pg2561	Remarks in Jacksonville, FL	2004-10-23
WCPD-2004-11-01-Pg2567	Remarks in Alamogordo, NM	2004-10-24
WCPD-2004-11-01-Pg2628	Remarks in Vienna, Ohio	2004-10-27
WCPD-2004-11-01-Pg2647	Remarks in Saginaw, Michigan	2004-10-28
WCPD-2004-11-01-Pg2654	Remarks in Dayton, Ohio	2004-10-28
WCPD-2004-11-01-Pg2660	Remarks in Westlake, Ohio	2004-10-28
WCPD-2004-11-01-Pg2667	Remarks in Yardley, PA	2004-10-28
WCPD-2004-11-01-Pg2679	Remarks in Portsmouth, NH	2004-10-29
WCPD-2004-11-08-Pg2689	Remarks in Toledo, Ohio	2004-10-29
WCPD-2004-11-08-Pg2695-3	Remarks in Columbus, Ohio	2004-10-29
WCPD-2004-11-08-Pg2708	Remarks in Ashwaubenon, WI	2004-10-30
WCPD-2004-11-08-Pg2715	Remarks in Minneapolis, MN	2004-10-30
WCPD-2004-11-08-Pg2727	Remarks in Miami, Florida	2004-10-31
WCPD-2004-11-08-Pg2732	Remarks in Tampa, Florida	2004-10-31
WCPD-2004-11-08-Pg2737	Remarks in Gainesville, FL	2004-10-31
WCPD-2004-11-08-Pg2742	Remarks in Cincinnati, Ohio	2004-10-31
WCPD-2004-11-08-Pg2747	Remarks in Wilmington, Ohio	2004-10-01
WCPD-2004-11-08-Pg2752-2	Remarks in Burgettstown, PA	2004-11-01
WCPD-2004-11-08-Pg2758	Remarks in Milwaukee, Wisconsin	2004-11-01
WCPD-2004-11-08-Pg2763	Remarks in Des Moines, Iowa	2004-11-01
WCPD-2004-11-08-Pg2768	Remarks in Sioux City, Iowa	2004-11-01
WCPD-2005-01-17-Pg45	Remarks at J.E.B. Stuart High	2004-01-12
WCPD-2005-01-17-Pg45	in Falls Church, Virginia	
WCPD-2005-02-07-Pg122-2	Remarks at a swearing-in	2005-01-31
WCPD-2005-02-07-Pg122-2	ceremony for Margaret Spellings	2005-01-31
	as Secretary of Education	
WCPD-2005-02-14-Pg187-2	Remarks to the Detroit Economic	2005-02-08
WCPD-2005-02-14-Pg187-2	Club in Detroit, Michigan	2005-02-08

Table 4.3: Continued

File ID	Title	Date
WCPD-2005-03-07-Pg340	Remarks in a discussion on job	2005-03-02
WCPD-2005-03-07-Pg340	training in Arnold, Maryland	2005-03-02
WCPD-2005-03-21-Pg440	Remarks at the National Republican Congressional Committee dinner	2005-03-15
WCPD-2005-04-25-pg634	Remarks honoring the 2005 national and state teachers of the year	2005-04-20
WCPD-2005-06-27-pg1043	Remarks at Calvert Cliffs Nuclear Power Plant in Lusby, Maryland	2005-07-14 2005-07-14
WCPD-2005-07-18-pg1158	Remarks at the Indiana Black Expo Corporate Luncheon in Indianapolis, Indiana	2005-07-25
WCPD-2005-10-24-pg1559	Remarks following a meeting with Secretary of Education Margaret Spellings	2005-10-19
WCPD-2005-10-31-pg1600	Remarks to the Economic Club of Washington, DC	2005-10-26
WCPD-2006-01-09-pg12	Remarks to the Economic Club of Chicago, Illinois	2006-01-06
WCPD-2006-01-16-pg26-2	Remarks on the NCLB Act in Glen Burnie, Maryland	2006-01-09
WCPD-2006-01-16-pg40-2	Remarks on the War on Terror and a question-and-answer session in Louisville, Kentucky	2006-01-11
WCPD-2006-01-23-pg80-2	Remarks on the national economy and a question-and-answer session in Sterling, Virginia	2006-01-19
WCPD-2006-02-27-pg320	Remarks at a celebration of African-American History Month	2006-02-22
WCPD-2006-03-13-pg434	Remarks at the National Newspaper Association Government Affairs Conference and a question-and-answer session	2006-03-10
WCPD-2006-03-27-pg498	Remarks to the City Club of Cleveland and a question-and- answer in Cleveland, Ohio	2006-03-20

Table 4.3: Continued

File ID	Title	Date
WCPD-2006-04-24-pg725	Remarks at Parkland Magnet Middle School for Aerospace Technology in Rockville, MD	2006-04-18
WCPD-2006-04-24-pg734	Remarks at Tuskegee University in Tuskegee, Alabama	2006-04-19
WCPD-2006-05-01-pg751	Remarks in a discussion at Cisco Systems, Inc. in San Jose, California	2006-04-21
WCPD-2006-05-01-pg769-2	Remarks on immigration reforms and a question-and-answer session in Irvine, California	2006-04-24
WCPD-2006-05-01-pg798	Remarks honoring the 2006 national and state teachers of the year	2006-04-26
WCPD-2006-05-08-pg838	Remarks to the American Council of Engineering Companies	2006-05-03
WCPD-2006-05-29-pg965-2	Remarks on American competitiveness in Highland Heights, Kentucky	2006-05-19
WCPD-2006-07-31-pg1396	Remarks to the National Association of Manufacturers	2006-07-27
WCPD-2006-10-09-pg1750	Remarks at Woodridge Elementary and Middle Campus	2006-10-05
WCPD-2006-10-09-pg1758	Remarks at a reception celebrating Hispanic heritage month	2006-10-06
WCPD-2006-10-16-pg1765	The president's radio address	2006-10-07
WCPD-2006-10-23-pg1837-2	Remarks at Waldo C. Falkener Elementary School in Greensboro, North Carolina	2006-10-18
WCPD-2006-11-06-pg1917-2	Remarks at a Georgia Victory 2006 rally in Statesboro, Georgia	2006-10-30
WCPD-2007-01-15-pg16	The president's radio address	2006-01-06
WCPD-2007-02-05-pg99	Remarks on the national economy in New York City	2007-01-31
WCPD-2007-03-05-pg238	Remarks at Silver Street Elementary School in New Albany	2007-03-02
WCPD-2007-03-19-pg338-2	Remarks at the National	2007-03-15

Table 4.3: Continued

File ID	Title	Date
WCPD-2007-03-19-pg338-2	Republican Congressional Committee dinner	
WCPD-2007-04-30-pg515	Remarks at the Harlem Village Remarks honoring the 2007 national and state teachers of of the year	2007-04-24
WCPD-2007-06-04-pg715	Proclamation 8152 – National Child’s Day, 2007	2007-04-31
WCPD-2007-07-02-pg858	Remarks to the 2007 presidential scholars	2007-06-25
WCPD-2007-07-30-pg1011	Remarks to the American Legislative Exchange Council in Philadelphia, Pennsylvania	2007-06-26
WCPD-2007-10-01-pg1251-2	Statement on the National Assessment of Educational Progress	2007-09-25
WCPD-2007-10-01-pg1253	Remarks on the No Child Left Behind Act in New York City	2007-09-26
WCPD-2007-10-01-pg1255	Remarks on signing the College Cost Reduction and Access Act Access Act	2007-09-27
WCPD-2007-10-15-pg1318-2	Remarks on the No Child Left Behind Act re-authorization re-authorization	2007-10-09
WCPD-2008-01-14-pg27	Remarks at Horace Greeley Elementary School in Chicago, Chicago, Illinois	2008-01-07
WCPD-2008-04-28-pg587-2	Remarks at the White House Summit on Inner-City Children Children Faith-Based Schools	2008-04-24
WCPD-2008-05-05-pg622	Remarks honoring the 2008 national and state teachers of of the year	2008-04-30
WCPD-2008-05-05-pg650-2	Proclamation 8251 – National Charter Schools Week, 2008	2008-05-02
WCPD-2009-01-12-pg22-3	Remarks on the NCLB Act in Philadelphia, Pennsylvania	2009-01-08

4.2.2 The Congressional Hearings

In this subsection I provide a summary description of the 87 Congressional Hearing documents returned by the FDsys search and loaded into the QDA application. Long titles were shortened and the elided parts are indicated by dots. The database search provided the results for hearings held by committees of the Senate, by some committees of the House of Representatives, and by a joint Senate-House committee.

Table 4.4 (p. 115) provides a list of the Congressional hearings held by a Senate committee in chronological order. The file ID starts with the session number, then the letters “shrg” for Senate Hearing, and ends with the hearing ID.

Table 4.5 (p. 117) provides a list of the congressional hearings held by a House committee in chronological order. The file ID starts with the session number, then the letters “hrg” for House Hearing, and ends with the hearing ID.

The following is a description of the only joint Senate-House committee hearing that was returned by the search

- 110jhrhg33757, “Elementary and Secondary Act reauthorization: Improving NCLB to close the achievement gap,” 2007-03-13

Table 4.4: Senate Committee Hearings

File ID	Title	Date
105shrg39641	Ebonics	1997-01-23
107shrg70756	Appropriations Act for departments ... Education ... FY 2002	2001-03-06
107shrg78480	Appropriations Act for departments ... Education ... FY 2003	2002-03-07
107shrg79324	Examining implementation of Elementary and Secondary Education Act	2002-04-23
107shrg79941	America’s schools: providing equal opportunity or still separate and	2002-05-23

Table 4.4: Continued

File ID	Title	Date
	and unequal?	
107shrg80479	Re-authorization of the Office of Education Research and Improvement	2002-06-25
107shrg81758	Successful implementation of Title I: State and local perspectives	2002-09-10
108shrg1910410	Depts. Labor, Health and Human Services, and Education ... appropriations appropriations FY 2004	2003-03-27
108shrg94491	Oversight hearing on implementation in Native American Communities of the NCLBA	2004-06-16
108shrg94993	Pell grants for kids: It worked for colleges. Why not for K-12?	2004-07-15
109shrg97751	Nomination of Margaret Spellings	2005-01-06
109shrg26056	The role of education in global competitiveness	2006-02-09
109shrg26353	Protecting America's Competitive Edge Act (S. 2198): Finding, training, and keeping talented math and science teachers	2006-02-28
109shrg49104171	Appropriations Act for departments ... Education ... FY 2006	2005-03-02
109shrg20732	Lifelong education opportunities	2005-04-14
109shrg21951	Indian education	2005-06-16
109shrg22340	U.S. history: Our worst subject?	2005-06-30
109shrg49104164	Appropriations Act for departments ... Education ... FY 2006	2005-12-31
109shrg26112	The president's FY 2007 budget request for Indian programs	2006-02-14
109shrg26426	Protecting America's Competitive Edge Act (S. 2198): Helping K-12 students learn math and science better	2006-03-01
109shrg27036	Appropriations Act for departments ... Education ... FY 2007	2006-03-01
109shrg49104190	Appropriations Act for departments ... Education ... FY 2007	2005-12-31
109shrg28848	Fostering innovation in mathematics and science education	2006-04-26
109shrg27768	Indian education	2006-05-25
109shrg59104229	Appropriations Act for departments ...	2006-12-31

Table 4.4: Continued

File ID	Title	Date
110shrg34052	Education ... FY 2007 NCLB reauthorization: Strategies for attracting, supporting and retaining retaining high quality educators	2007-03-06
110shrg33885	Strengthening American competitiveness in the 21st century	2007-03-07
110shrg35329	Federal funding for the No Child Left Behind Act	2007-03-14
110shrg33926	Appropriations for departments ... Education ... for FY 2008	2007-03-19
110shrg35072	NCLB reauthorization: Modernizing middle and high schools for the 21st century	2007-04-24
110shrg37293	No Child Left Behind: Improving education in Indian country	2007-08-10
110shrg69104283	Appropriation for departments ... Education ... for FY 2008	2007-12-31
110shrg45589	Improving high school graduation rates and post-secondary success in Alaska and nationwide focusing on what can the government do?	2008-11-15
111shrg52739	Stimulating Hawaii's economy: Impact of the American Recovery and Reinvestment Act of 2009	2009-08-24
111shrg52939	A review and assessment of the use, impact, and accomplishments of federal appropriations provided to improve the education of children in the District of Columbia	2009-09-16 2009-09-16
111shrg55474	ESEA reauthorization: The importance of a world-class K-12 education for our economic success	2010-03-09
111shrg67045	America wins when America competes: Building a high-tech workforce	2010-05-06

Table 4.5: House Committee Hearings

File ID	Title	Date
106hhr59654	Fixing our schools from the bottom up	1999-09-23
108hhr90162	Implementation of the Math and Science Partnership Program: View from the field	2003-10-30

Table 4.5: Continued

File ID	Title	Date
108hhrg91364	Fueling the high tech workforce with math and science education	2004-01-23
108hhrg91861	Department of Education budget priorities for FY 2005	2004-02-11
108hhrg92309	No Child Left Behind: Improving results for children with disabilities	2004-03-03
108hhrg92513	The 2003 presidential awardees for excellence in math and science teaching: a lesson plan for success	2004-03-18
108hhrg92756	H.R. 4030, Congressional medal for outstanding contributions in Math and Science Education Act of 2004	2004-03-30
108hhrg93983	Highly qualified teachers and raising student achievement	2004-05-27
108hhrg94513	No Child Left Behind: Raising student achievement in America's big city schools	2004-06-23
109hhrg20424	The 2004 presidential awardees for excellence in mathematics and science teaching	2005-04-14
109hhrg21648	The role of non-profit organizations in state and local high school reform efforts	2005-06-09
109hhrg23691	Closing the achievement gap in America's schools: The NCLB Act	2005-09-29
109hhrg26125	Member's Day	2006-02-14
109hhrg26798	K-12 science and math education across the federal agencies	2006-03-30
109hhrg27978	Building America's competitiveness: examining what is needed to compete in a global economy	2006-04-06
109hhrg27985	NCLB: How innovative educators are integrating subject matters to improve student achievement	2006-05-18
109hhrg28431	NCLB: Disaggregating student achievement by subgroups to ensure all students are learning	2006-06-13
109hhrg28839	NCLB: Can growth models ensure improved education for all students?	2006-07-27
109hhrg29626	NCLB: Successes and challenges of implementation in urban and suburban	2006-08-28

Table 4.5: Continued

File ID	Title	Date
	schools	
110hhrg33801	Science and technology leadership in a 21st century global economy	2007-03-13
110hhrg34015	ESEA reauthorization: options for improving NCLB's measures of progress	2007-03-21
110hhrg34016	The Higher Education Act: Approaches to college preparation	2007-03-22
110hhrg34017	Impact of No Child Left Behind on English language learners	2007-03-23
110hhrg34174	How NCLB affects students with disabilities	2007-03-29
110hhrg34417	Local perspectives on the No Child Left Behind Act	2007-04-12
110hhrg34604	Improving the No Child Left Behind Act's accountability system	2007-04-27
110hhrg34631	NCLB: Preventing dropouts and enhancing school safety	2007-04-23
110hhrg34990	ESEA reauthorization: Boosting quality in the teaching profession	2007-05-11
110hhrg35233	Federal STEM education programs: Educator's perspectives	2007-05-15
110hhrg35664	Reauthorization of the Elementary and Secondary Education Act: Current and Current and prospective flexibility under No Child Left Behind	2007-06-07
110hhrg35842	Workforce Investment Act: Recommendations to improve the effectiveness of job training	2007-06-28
110hhrg37638	Re-authorization of the Elementary and Secondary Education Act of 1965	2007-09-10
110hhrg38056	Assessment of the National Science Board's Action Plan for STEM education	2007-10-10
110hhrg41066	Competitiveness and innovation on the committee's 50th anniversary with Bill Gates, chairman of Microsoft	2008-03-12
110hhrg42335	The National Mathematics Advisory Panel Report: Foundations for success	2008-05-21
110hhrg43311	Mayor and superintendent partnerships in education: Closing the achievement gap	2008-07-17
110hhrg43470	Innovation in education through business	2008-07-22

Table 4.5: Continued

File ID	Title	Date
110hrg44214	and educational STEM partnerships Challenges facing Bureau of Indian Education schools in improving student achievement	2008-09-09
111hrg47611	Beyond the classroom: Informal STEM education	2009-02-26
111hrg48732	Strengthening America's competitiveness through common academic standards	2009-04-29
111hrg49499	America's competitiveness through high school reform	2009-05-12
111hrg52859	Engineering in K-12 education	2009-10-22
111hrg53373	Improving the literary skills of children and young adults	2009-11-19
111hrg53732	Improving our competitiveness: Common core education standards	2009-12-08
112hrg64229	Education in the nation: Examining the challenges and opportunities facing America's classrooms	2010-02-10
111hrg58234	Appropriation for departments ... Education ... for 2011	2010-03-04
111hrg55304	Elementary and Secondary Education Act re-authorization: Addressing the needs of diverse students	2010-03-18
112hrg64657	Education regulations: Weighing the burden on schools and students	2011-03-01
112hrg64795	The budget and policy proposals of the U.S. Department of Education	2011-03-09
112hrg64795		2011-03-09

4.3 The Coded Statements

4.3.1 Introduction

In this subsection I present the results of the categorization of the coded statements and the description of their texts. By “coded statements” I mean statements that had at least one coded paragraph in them. For a description of how the statements were identified and categorized see Subsection 3.5.

There are five descriptors for the statements as can be seen in Table 4.6.

Table 4.6: Statement Attributes and Descriptions

Statement attribute	Attribute description
Author	Author of the statement
Date	Date of the statement, same as document date
Audience	Audience of the statement
Affiliation	Political party or organization of the author
Message	Message of the author

4.3.2 Presidential Documents

Here I show the description of the statements of the Presidential documents. As we have seen previously, except for one document, a presidential election debate, all have a single statement.

To have an idea of the type of results of the FDsys search we can note the number of relevant statements per president (Table 4.7, p. 122). As we can see, the vast majority of the statements are by President George W. Bush. The documents returned by the FDsys search span a time from the end of the second Clinton term,

both terms of George W. Bush, and the beginning of the first term of President Barack Obama.

Table 4.7: Number of Statements by Authors

Author	Number
William Clinton	2
George W. Bush	119
John Kerry	2
Barack Obama	8
Total	131

I show in Appendix A the messages for each of the statements and for each author in tables A.1 (p. 426), A.2 (p. 427), A.3 (p. 427), and A.4 (p. 432).

Note: (1) when the values are between double quotes they are verbatim from the statement, otherwise I have tried to abstract the message from the statement in my own words; (2) sometimes there is more than one message in a statement; and (3) some messages appear in more than one statement. An example is the exhortation by George W. Bush to be re-elected to the presidency.

4.3.3 Congressional Hearings

Each congressional hearing is comprised of several statements. As we have seen in Subsubsection 4.2.2, the hearings can be classified by *audience*, which is the committee that organized the hearing. They can also be summarized by *author*. Note that the House Committee on Education and the Workforce was named House Committee on Education and Labor from 2007 to 2011 when the Democratic Party controlled the House. The House Committee on Science and Technology was named “Commit-

tee on Science” between 1997 and 2007 when the Republican Party was in majority. Previously it was called the “Committee on Science, Space, and Technology”.

There were a total of **458** statements given to **12** different congressional committees (Table 4.8, p. 123) by **297** different authors (Tables 4.9, p. 124, 4.10, p. 125, 4.11, p. 128, 4.12, p. 129, 4.13, p. 130, 4.14, p. 135, 4.15, p. 136, and 4.16, p. 138).

Table 4.8 (p. 123) summarizes the statements by committee.

Table 4.8: Statement Audiences

Committee	Number
House Committee on Appropriations	1
House Committee on Education and the Workforce	192
House Committee on Science and Technology	63
House Committee on the Budget	10
House Subcommittee on 21st Century Competitiveness	5
Senate Committee on Appropriations	48
Senate Committee on Commerce, Science, and Transportation	7
Senate Committee on Health, Education, Labor, and Pensions	101
Senate Committee on Indian Affairs	13
Senate Committee on Indian Education	3
House Committee on Education and the Workforce & Senate Committee on Health, Education, Labor, and Pensions	15
Total	458

The authors can be classified into four groups, (1) members of Congress, (2) witnesses, (3) organizations, and (4) the committees or subcommittees themselves. Usually a document would contain a beginning statement prepared by the organizing committee or subcommittee, then statements by members of congress who may or may not belong to the (sub)committee, and then witnesses who can belong to executive branch departments or to universities, think tanks, professional organization, or

socio-political organizations. Sometimes the statements would not have a physical author and only have the name of the organization. Note that the same author can give more than one presentation during the same hearing. Often a witness would give a statement and later answer questions. A few statements were written and given by more than one author.

Table 4.9 (p. 124) lists the statements by U.S. senators.

Table 4.9: Statement Authors - Senators

Name	Hearing	Affiliation
Daniel K. Akaka	109shrg27768	Democrat, Hawaii
Lamar Alexander	108shrg94993 (3x) 110shrg34052	Republican, Tennessee
Scott Brown	111shrg55474	Republican, Massachusetts
Susan Collins	111shrg52939	Republican, Maine
Christopher J. Dodd	107shrg79941 109shrg26056	Democrat, Connecticut
Richard J. Durbin	111shrg52939	Democrat, Illinois
John E. Ensign	109shrg26426 109shrg28848	Republican, Nevada
Michael Enzi	107shrg79941 109shrg20732 109shrg26056 109shrg26426 109shrg97751 110jhrng33757 110shrg33885 111shrg55474	Republican, Wyoming
William H. Frist	107shrg79324	Republican, Tennessee
Thomas Harkin	109shrg49104171 111shrg55474	Democrat, Iowa
Daniel K. Inouye	109shrg21951	Democrat, Hawaii
Edward M. Kennedy	107shrg79324 107shrg79941 107shrg80479 109shrg26426 110jhrng33757 110shrg33885 110shrg34052	Democrat, Massachusetts

Table 4.9: Continued

Name	Hearing	Affiliation
	110shrg35072	
	109shrg97751	
Mary L. Landrieu	109shrg27036	Democrat, Louisiana
Joe Lieberman	111shrg52939	Democrat, Connecticut
John McCain	109shrg21951	Republican, Arizona
	109shrg24468	
Patty Murray	109shrg26056	Democrat, Washington
John D. Rockefeller IV	111shrg67045	Democrat, West Virginia
Arlen Specter	109shrg49104190	Senator from Pennsylvania; Republican Party, (in 2009 switched to Democratic Party)

Table 4.10 (p. 125) lists the statements by U.S. representatives.

Table 4.10: Statement Authors - Representatives

Name	Hearing	Affiliation
Jason Altmire	110hhr34631	Democrat, Pennsylvania
	110hhr42335	
	110hhr43470	
Brian Baird	110hhr35233	Democrat, Washington
Judy Biggert	109hhr29626	Republican, Illinois
John A. Boehner	108hhr94513	Republican, Ohio
	109hhr23691	Chairman, Committee on Education and the Workforce
Michael N. Castle	109hhr21648	Republican, Delaware
	109hhr27985	
	110hhr35664	
	111hhr49499	
	111hhr55304	
	110hhr37638	
Jerry F. Costello	109hhr26798	Democrat, Illinois
Ronald V. Dellums	105shrg39641	Democrat, California
Vernon J. Ehlers	109hhr26125	Republican, Michigan
Dwight Evans	106hhr59654	Democrat, Pennsylvania
Chaka Fattah	107shrg79941	Democrat, Pennsylvania
	111hhr49499	
Phil Gingrey	108hhr91364	Republican, Georgia

Table 4.10: Continued

Name	Hearing	Affiliation
Bart Gordon	109hhr26798	Democrat, Tennessee
Raul M. Grijalva	111hhr49499	Democrat, Arizona
Steve Gunderson	109shr20732	Republican, Wisconsin
Ralph M. Hall	110hhr33801	Republican, Texas
Phil Hare	110jhr33757	Democrat, Illinois
Ruben Hinojosa	109hhr26125 110hhr34016	Democrat, Texas
Rush D. Holt	109hhr26125	Democrat, New Jersey
Michael M. Honda	109hhr26798	Democrat, California
N/A	109hhr27985 109hhr28431	House Committee on Education and the Workforce
N/A	108hhr91364 108hhr92513 109hhr20424 109hhr26798 110hhr33801 110hhr35233 110hhr41066	House Committee on Science and Technology
N/A	108hhr93983	House Subcommittee on 21st Century Competitiveness
N/A	108hhr90162 108hhr92756 111hhr52859	House Subcommittee on Research and Science Education
Bob Inglis	109hhr20424	Republican, South Carolina
John H. Isakson	107shr79941	Republican, Georgia
Eddie Bernice Johnson	108hhr90162 109hhr26798 111hhr52859	Democrat, Texas
Dale E. Kildee	110hhr34017 111hhr53373 111hhr55304	Democrat, Michigan
Sheila Jackson Lee	108hhr90162 109hhr20424	Democrat, Texas
Howard P. McKeon	109hhr28839 110hhr34015 110hhr34990 110hhr42335 110hhr43470 110jhr33757	Republican, California

Table 4.10: Continued

Name	Hearing	Affiliation
George Miller	108hhr91861	Democrat, California
	108hhr92309	
	108hhr94513	
	109hhr27978	
	109hhr27985	
	109hhr28731	
	109hhr28839	
	110hhr34015	
	110hhr34631	
	110hhr34990	
	110hhr37638	
	110hhr42335	
	110hhr43311	
	110hhr43470	
	110jhr33757	
	111hhr48732	
111hhr49499		
111hhr53732		
112hhr64229		
112hhr64795		
Harry E. Mitchell	110hhr33801	Democrat, Arizona
Charlie Norwood	109hhr27978	Republican, Georgia
Thomas Petri	111hhr49499	Republican, Wisconsin
Jon C. Porter	108hhr93983	Republican, Nevada
	109hhr23691	
Ralph Regula	109hhr26125	Republican, Ohio
Nick Smith	108hhr90162	Republican, Michigan Chairman, Research Subcommittee, House Science Committee
	108hhr92756	
Lynn C. Woolsey	109hhr21648	Democrat, California
	109hhr26798	
Maxine Waters	105shr39641	Democrat, California
Deborah Wright	105shr39641	Republican candidate, California

The GAO is part of the Legislative Branch of the U.S. Government, however its members are not elected. Twice have members been called to testify. Table 4.11 (p. 128) displays the information about these hearings.

Table 4.11: Statement Authors - Government Accountability Office

Name	Hearing	Affiliation
Cornelia M. Ashby	110hrg34017	Director of Education, Workforce, and Income Security Issues
Marlene S. Shaul	109hrg28839	Director of Education, Workforce, and Income Security Issues

Table 4.12 (p. 129) lists the statements by members of the U.S. executive branch of government. Included is a statement by Arne Duncan that was given as Secretary of the Department of Education. In addition, Tom Luce served as U.S. Assistant Secretary of Education for Planning, Evaluation and Policy Development from July 1, 2005 until his resignation on September 1, 2006. Later he served as Chief Executive Officer of the National Math and Science Initiative, Inc. from 2007 to 2011. He witnessed one time as Assistant Secretary, and this hearing is in Table 4.12 (p. 129). His witness as CEO of the National Math and Science Initiative is on Table 4.16 (p. 138).

Table 4.13 (p. 130) lists the statements by members of state, school and school district agencies. Included are two statements of Arne Duncan given when he was Chief Executive Officer of Chicago Public Schools.

Table 4.14 (p. 135) lists the statements by businesses or business sponsored institutions.

Table 4.15 (p. 136) lists the statements by university faculty.

Table 4.16 (p. 138) lists the statements by non-for-profit organizations.

To obtain an idea of the content of the selected documents I have prepared a series of tables that contain the messages of their statements (see Subsection 3.5). I placed those tables in Appendix Section A.3 and Appendix Section A.4.

Table 4.12: Statement Authors - Executive Branch

Name	Hearing	Affiliation
David W. Anderson	108shrg94491	Assistant Secretary for Indian Affairs U.S. Department of the Interior
Arden L. Bement, Jr.	109hhrhg26798 109shrg26426	Director, National Science Foundation
Elaine L. Chao	109shrg20732	U.S. Secretary of Labor, Republican Party
Shana L. Dale	109hhrhg26798	Deputy administrator, NASA
Arne Duncan	112hhrhg64795	Secretary, U.S. Department of Education, Democratic Party
Eugene W. Hickok	107shrg79324	Deputy Secretary of Education U.S. Department of Education
Stanley Holder	110hhrhg44214	Chief, Division of Performance and Accountability Bureau of Indian Education, U.S. Department of the Interior
N/A	110shrg33926 110shrg69104283	Institute of Education Sciences U.S. Department of Education
Henry L. Johnson	109hhrhg29626	Assistant Secretary for Elementary and Secondary Education, Department of Education
Martha Kanter	111hhrhg58324	Under Secretary of Education
Jacqui Farmer Kearns, Ed.D.	111hhrhg55304	Principal Investigator, National Alternate Assessment Center, U.S. Department of Education
Tom Luce	109shrg26353	Assistant Secretary for Planning, Evaluation and Policy Development U.S. Department of Education
Darla Marburger	109shrg26112 109shrg27768 109shrg27768	Deputy Assistant Secretary for Policy, Office of Elementary and Secondary Education, Department of Education
Roderick R. Paige	107shrg70756 (2x) 107shrg78480 (3x) 108hhrhg91861	Secretary, U.S. Department of Education

Table 4.12: Continued

Name	Hearing	Affiliation
	108shrg1910410 (2x)	
Richard W. Riley	106hhrhg59654	Secretary, U.S. Department of Education, Democratic Party
Raymond Simon	108hhrhg93983	Assistant Secretary Office of Elementary and Secondary Education
	109hhrhg28431	Deputy Secretary of Education U.S. Department of Education
Margaret Spellings	109hhrhg23691	Secretary, U.S. Department of Education
	109hhrhg26798 (2x)	
	109hhrhg27978 (2x)	
	109shrg20732 (2x)	
	109shrg26056 (2x)	
	109shrg27036 (2x)	
	109shrg49104171 (3x)	
	109shrg49104190 (2x)	
	109shrg97751 (2x)	
	110shrg35329	
Victoria Vasquez	108shrg94491	Deputy Under Secretary Office of Indian Education
	109shrg21951	U.S. Department of Education
Grover J. Whitehurst	107shrg80479	Director, Institute of Education Sciences, U.S. Department of Education

Table 4.13: Statement Authors - Local Agencies

Name	Hearing	Affiliation
Joseph Abeyta	110shrg37293	Superintendent, Santa Fe Indian School, Santa Fe, NM
Michael Bell	108shrg94993	Assistant Superintendent Miami-Dade County School Choice and Parental Options
Terry Ben	108shrg94471	Director of Tribal Schools Mississippi Band of Choctaw Indians
Melanie Blake	110hhrhg34604	Teacher, Sonoma Valley High School, Sonoma, CA

Table 4.13: Continued

Name	Hearing	Affiliation
Michael R. Bloomberg	110hhrhg43311	Mayor, City of New York
Roger Bordeaux	109shrg21951	Superintendent of Tiospa Zina Tribal School, Executive Director, Association of Community Tribal Schools, Inc.
Frances Bryant Bradburn	110hhrhg37638	Director of Instructional Technology, North Carolina Department of Public Instruction
David L. Brewer III	110hhrhg37638	Superintendent Los Angeles Unified School District
Joseph P. Burke, Dr.	110hhrhg34990	Superintendent of Schools, Springfield, MA
Elizabeth Burnmaster	110jhrhg33757	President Council of Chief State School Officers
Karen Butterfield, Ed.D.	108hhrhg93983	Deputy Associate Superintendent Arizona Department of Education
Billy Cannaday, Jr.	110hhrhg37638	Superintendent of Public Instruction, Virginia Department of Education
Judy Catchpole	107shrg79941	Superintendent Public Instruction, State of Wyoming
Cynthia L. Cliche	109hhrhg20424	Teacher at Homer Pittard Campus School, Murfreesboro, TN
N/A	110shrg45589	Cook Inlet Tribal Council
Toni Cook	105shrg39641	Oakland School Board
Rebecca H. Cort, Dr.	110hhrhg34174	Deputy Commissioner, Office of Vocational and Educational Services for Individuals with Disabilities, New York State Education Department
Rudolph F. Crew	110hhrhg37638	Superintendent, Miami-Dade County, Florida Public Schools Florida Public Schools
Mary Kay Dore	111hhrhg53373	Student Support Services Manager Summit School District, Frisco, CO
Paul Dugan	109shrg28848	Superintendent

Table 4.13: Continued

Name	Hearing	Affiliation
		Washoe County School District
Arne Duncan	109hhrhg29626 110hhrhg43311	Chief Executive Officer Chicago Public Schools
Delaine Eastin	105shrg39641	State Superintendent of Public Instruction, California
Wendy Ehnert	108hhrhg92513	Science teacher in Lathrop High School, Fairbanks, Alaska
Jay T. Engeln	108hhrhg92756	William J. Palmer High School Colorado Springs, CO
Ernie Fletcher, Hon.	109shrg20732	Governor of Kentucky; Republican Party
Veronica C. Garcia, Hon.	110shrg37293	New Mexico Secretary of Education
Carolyn M. Gettridge	105shrg39641	Superintendent Oakland Unified School District
Beverly L. Hall	110hhrhg43311	Superintendent, Atlanta Public Schools
Patricia Hamamoto	111shrg52739	Superintendent Hawaii State Department of n Education
J. Martez Hill	108hhrhg91364	Policy Director Georgia Department of Education
MaryKate Hughes	110hhrhg37638	Master Teacher, DC Preparatory Academy
Deborah Jewell- Sherman, Dr.	109hhrhg23691 (2x) 110shrg35329	Superintendent, Richmond Public Schools, Virginia
Carol Johnson, Dr.	110hhrhg35664	Superintendent, Memphis City Schools
Joel I. Klein	109hhrhg28839 110hhrhg34990 110hhrhg43311 (2x)	Chancellor New York City Department of Education
Cynthia Kuhlman, PhD	109hhrhg28431	Principal, Centennial Place Elementary, School, Atlanta, GA
Michael C. Lach	110hhrhg35233	Director of Mathematics and Science, Chicago Public Schools
Larry LeDoux	110shrg45589	Commissioner of Education, Alaska
Leland Leonard	109shrg21951	Division of Dine' Education, Navajo Nation

Table 4.13: Continued

Name	Hearing	Affiliation
Sharon E. Liddell, Ed.D.	110hhrhg34604	Superintendent, Santa Rosa City Schools
Dane Linn	110hhrhg34016	Director, Education Division Center for Best Practices National Governors Associations
Phillip Martin	108shrg94491	Tribal Chief Mississippi Band of Choctaw Indians
Peter McWalters	110hhrhg34015	Commissioner of Elementary and Secondary Education State of Rhode Island
Rick Melmer	110hhrhg35664	South Dakota Secretary of Education
Sandra D. Meyers, Ed.D.	111hhrhg53373	Education Associate Delaware Department of Education
Ioannis Miaoulis, Dr.	111hhrhg47611 111hhrhg52859 111shrg67045	President and Director, Museum of Science, Boston, and Founding Director, National Center for Technological Literacy
William J. Moloney	107shrg81758	Commissioner of Education Colorado Department of Education
James R. Mountain, Hon.	110shrg37293	Governor of Pueblo de San Ildefonso
Marcus J. Newsome, Dr.	108hhrhg94513	Superintendent Newport News County Public Schools
Jane Norwood, Dr.	110hhrhg34631	Vice-chair North Carolina State Board of Education
Ronald A. Peiffer, PhD	109hhrhg28431	Deputy State Superintendent Office of Academic Policy Maryland State Department of on Education
Mary E. Penich, Charleen Cain, Barbara Lukas	109hhrhg29626	Lake County Assistant Regional Superintendent of Schools Teacher leader Northern Illinois Reading Recovery Consortium Teacher leader and interim

Table 4.13: Continued

Name	Hearing	Affiliation
		director Reading Recovery Training Center National-Louis University
Jean Quan	105shrg39641	Board president Oakland Unified School District
Michelle Rhee	110hhrhg43311 111shrg52939	Chancellor District of Columbia Public Schools
Jane Rhyne, PhD	108hhrhg92309 110hhrhg34174	Assistant Superintendent Programs for Exceptional n Children, Charlotte-Mecklenburg Public Schools
Francisca Sanchez	110hhrhg34017	Assistant Superintendent of Curriculum and Instruction San Bernadino County Superintendent of Schools Office
Jarvis Sanford, Dr.	110hhrhg34990	Principal, Dodge Renaissance Academy
Elizabeth W. Schott	110hhrhg34604	Principal, McDowell Elementary School, Petaluma, CA
Eric J. Smith, Dr.	108hhrhg94513	Anne Arundel County Public Schools, Annapolis, Maryland
Kathleen N. Straus, Hon.	110hhrhg35664	President, Michigan State Board of Education
Paul G. Vallas	108hhrhg94513	Chief Executive Officer School District of Philadelphia
Jerry D. Weast, Dr.	111hhrhg48732	Superintendent of Schools Montgomery County Public Schools, MD
Gene Wilhoit	110shrg35329 111hhrhg53732	Executive Director Council of Chief State Schools Officers, former Commissioner of Education of Kentucky
Joan E. Wodiska	110hhrhg37638	Director, Early Childhood and Workforce Committee, National Governors Association
Valerie Woodruff	110hhrhg34015	Secretary of Education, State of Delaware

Table 4.14: Statement Authors - Businesses and Business Sponsored Organizations

Name	Hearing	Affiliation
N/A	110jhrhg33757	Business Coalition for Student Achievement
Charles Butt	111shrg55474	H.E.B. San Antonio based supermarket chain
John Castellani	110hhrhg42335 111shrg55474	President, Business Roundtable
Maia Davis	108hhrhg91861	The [Bergen County, N.J.] Record
N/A	110hhrhg43470	Exxon Mobile Corporation
Andres Henriquez	109hhrhg21648 111hhrhg53373	Program Officer, Education Division Carnegie Corporation of New York
Brian K. Fitzgerald, Ed.D.	109shrg20732	Business-Higher Education Forum
William H. Gates	110hhrhg41066 110shrg33885	Chairman, Microsoft Corporation
Scott Gordon	111hhrhg49499	CEO, Mastery Charter Schools
James Jarrett	109hhrhg27978	Vice President Worldwide Government Affairs Intel Corp.
Greg Jones	111hhrhg48732	President and CEO State Farm General Insurance (retired), Chairman Chairman, California Business for
Melendy Lovett	110hhrhg43470	Senior Vice President and President, Education Technology Texas Instruments
Harold McGraw-Hill, III	110hhrhg33801 (2x)	President and CEO The McGraw-Hill Companies
Phil Mickelson	110hhrhg43470	Professional golfer and co-founder Michelson ExxonMobil Teachers Academy
Carlo Parravano Dr.	110hhrhg43470	Executive Director Merck Institute for Science Education
Vicki Phillips Dr.	111hhrhg49499	Director, Education Bill & Melinda Gates Foundation
Torrence H. Robinson	108hhrhg92756	Director, Federal Affairs Texas Instruments
William L.	109hhrhg28839	Senior Manager

Table 4.14: Continued

Name	Hearing	Affiliation
Sanders, PhD		Value-Added Assessment and Research SAS Institute, Inc.
Lori Sturdevant	109hhrhg27978	Staff writer, Minneapolis “Star Tribune”
Susan L. Traiman	110hhrhg38056	Director of Education and Workforce Policy, Business Roundtable
Roy Vagelos	109shrg26353	The Merck Group
Tom vander Ark	109hhrhg21648	Executive Director, Education The Bill and Melinda Gates Foundation
Daniel de Vise	111hhrhg48732	Washington Post Staff Writer
N/A	109hhrhg28431	Washington Post
David Zaslav	111shrg67045	President and CEO, Discovery Communications

Table 4.15: Statement Authors - University Faculty

Name	Hearing	Affiliation
Eva L. Baker	110hhrhg35664	Professor, Director Center for Research on Evaluation Standards, and Student Testing, UCLA
Robert Balfanz	110shrg35072	Research Scientist Center for Social Organization of Schools, Johns Hopkins University
	111hhrhg49499	Associate director, Talent Development, Middle and High School Project, Everyone Graduates Center Johns Hopkins University
Hai-Lung Dai	109shrg26353	Professor, University of Pennsylvania
Linda Darling- Hammond, Ed.D.	110hhrhg34015 110hhrhg34990 110hhrhg35664 110shrg34052 (2x) 110hhrhg37638	Professor School of Education Stanford University
Francis Fennell	110hhrhg42335 110hhrhg38056	McDaniel College, past president NCTM

Table 4.15: Continued

Name	Hearing	Affiliation
S. James Gates Jr., PhD	111shrg67045	Professor of Physics and Director Center for String and Particle Theory, University of Maryland
Ellen B. Goldring	108shrg94993	Vanderbilt University
Leo Gomez, PhD	111hhrhg53373 111hhrhg53373	Professor, University of Texas Pan American Officer, National Association for Bilingual Education
Mark Hamilton	110shrg45589	President, University of Alaska
Linda P.B. Katehi	111hhrhg52859	Chancellor, University of California, Davis, National Academy of Engineering, National Research Council Center for Education
Mary K. Lose, Dr.	110hhrhg34417	Oakland University, Rochester, MI
James H. McCormick	109hhrhg27978	Chancellor Minnesota State Colleges and Universities System
James M. McPartland	110hhrhg37638	Research Professor and Co-Director Center for Social Organization of Schools, Johns Hopkins University
Lamar P. Miller PhD	107shrg80479	Professor, Executive Director Metropolitan Center for Urban Education, New York University
M. Susanna Navarro	108hhrhg90162	Principal Investigator El Paso Math/Science Partnership University of Texas, El Paso
Paul A. Ohme, PhD	108hhrhg91364	Director, Georgia Institute of Technology, Center for Education Integrating Science, Mathematics and Computing
Rachel Quenemoen	110hhrhg34174	Senior Research Fellow National Center on Education Outcomes, University of Minnesota
Orlando L. Taylor PhD	105shrg39641	Dean, Graduate School of Arts and Sciences, Howard University
William H. Wilson PhD	109shrg27768	University of Hawaii
Patrick J. Wolf	111shrg52939	Professor and 21st Century Chair in School Choice, Department of Education Reform, University of

Table 4.15: Continued

Name	Hearing	Affiliation
		Arkansas College of Education and Health Professions
Beverly Young	110hhr34017	Assistant Vice Chancellor, Academic Affairs, Teacher Education and Public School Programs, California State University
PhD	110shrg34052	

Table 4.16: Statement Authors - Non-for-Profit Organizations

Name	Hearing	Affiliation
N/A	111shrg52939	American Association of University Women
N/A	108hhr92309	American Federation of Teachers
N/A	109shrg27036 109shrg59104229	American Geological Institute
Jeff Archer	109hhr28431	Associate Editor, Education Week
Norman R. Augustine	110hhr33801	Chair, Committee on Prospering in the Global Economy of the 21st Century National Academy of Sciences
Sandra Baxter	110hhr35842	Director, National Institute for Literacy
David Beaulieu	109shrg21951 109shrg97751	National Indian Education Association
Sandi Borden	109shrg97751	Executive Director, Texas Elementary Principals and Supervisors Association
John C. Brittain	109hhr28431	Chief Counsel and Senior Deputy Director, Lawyers' Committee for Civil Rights Under Law
Amos C. Brown Rev.	105shrg39641	Doctor of ministry, chairman Civil Rights Commission National Baptist Convention USA, Inc., and member, board of supervisors, San Francisco
Anne L. Bryant and George H. McShan	109shrg97751	National School Board Association
Steve Burroughs	110hhr34417	President, United Teachers of Flint

Table 4.16: Continued

Name	Hearing	Affiliation
		National Education Association
Michael D. Casserly, Dr.	105shrg39641 107shrg81758 108hhr94513 110jhr33757 110hhr37638	Executive Director, Council of the Great City Schools
Kevin Carey	110hhr37638	Policy Manager, Education Sector
N/A	110hhr37638	Center on Education Policy
Alan F. Clayton	105shrg39641	Los Angeles County Chicano Employees Association
Michael Cohen	110hhr37638	President, Achieve, Inc.
N/A	109shrg27036 109shrg59104229 110shrg33926	College Board
Gregory M. Cork	111shrg52939	President and CEO Washington Scholarship Fund D.C. Opportunity Scholarship Program
Antonia Cortese	110hhr37638	Executive Vice President American Federation of Teachers
Andrew J. Coulson	112hhr64229	Center for Educational Freedom Cato Institute
Chester E. Finn Jr.	110hhr35664	President, Fordham Institute Hoover Institution Stanford University
Wanda Gaddis	107shrg81758	National PTA
Joseph A. Garcia	109shrg26112	President, National Congress of American Indians
David M. Gipp Dr.	111hhr55304	National Congress of American Indians, and the National Indian Education Association
N/A	111hhr47611	Girl Scouts of the USA
Lisa Graham Keegan	108hhr91861 112hhr64229	Chief Executive Officer Education Leaders Council Founder, Education Breakthrough Network
James Kohlmoos	110hhr37638	President and CEO, Knowledge Alliance
Brian Gong	110hhr37638	Executive Director, National Center

Table 4.16: Continued

Name	Hearing	Affiliation
		for Improvement of Educational Assessment
Alejandro Grajal	111hhr47611	Senior Vice President of Conservation, Education and Training, Chicago Zoological Society
La Ruth H. Gray	110hhr37638	Deputy Director, Metropolitan Center for Urban Education
David Griffith	110jhr33757	National Association of State Boards of Education
Tony Habit Ed.D.	110shr35072	President at NC New Schools Project Past President at Wake Education Partnership Executive Director Durham Education Network
Kati Haycock	109hhr23691 (2x) 109hhr28839 110hhr37638 112hhr64657	Director, The Education Trust
Wade J. Henderson	110jhr33757	President and CEO Leadership Conference on Civil Rights
N/A	108shr94993	Hoover Institution on War Revolution and Peace
James B. Hunt Jr., Hon.	109shr26426 111hhr48732	Former Governor of North Carolina Democratic Party James B. Hunt Institute for Educational Leadership and Policy Foundation Board
Andrea J. Ingram	111hhr47611 (2x)	Museums Vice President of Education and Guest Services Museum of Science and Industry, Chicago
Jesse L. Jackson Rev.	105shr39641	Rainbow/PUSH Coalition
John F. Jennings	110hhr35664 110shr35329	President, Center on Education Policy
Stephanie J. Jones	110hhr37638	Executive Director, National Urban League
Paul Kimmelman	109hhr29626	Senior Advisor, Office of the CEO

Table 4.16: Continued

Name	Hearing	Affiliation
		Learning Point Associates
Rosemary King Johnston	108hhr92309	National Education Association
John Kirtley	108shrg94993	Vice Chairman, Alliance for School Choice
Marguerite Kondracke	111hhr49499	President and CEO America's Promise Alliance
Wendy Kopp	109shrg97751	President & Founder, Teach for America
David B. Laird Jr.	109hhr27978	President, Minnesota Private College Council
Mary-Beth Lang	107shrg79941	National Education Association
Daniel J. Losen	110hhr37638	Senior Education Law and Policy Associate, on behalf of the Civil Rights Project of UCLA
Tom Luce	110hhr43470	CEO, National Math and Science Initiative
VerlieAnn Malina Wright, Ed.D.	110shrg37293	National Indian Education Association
Phyllis McClure Dianne Piche, and William L. Taylor	109hhr29626	Citizens' Commission on Civil Rights
Edward J. McElroy	110jhr33575	President, American Federation of Teachers
Andrea Messina	110hhr37638	Commissioner, Aspen Institute Commission on No Child Left Behind
N/A	110hhr33801 (2x)	National Academy of Sciences
N/A	110hhr43311	National Alliance of Black School Educators
N/A	110jhr33757	National Association of Secondary School Principals
N/A	109shrg97751	National Center for Learning Disabilities, Inc.
N/A	111shrg52939	National Coalition for Public Education
N/A	111shrg55474	National Education Association
N/A	111hhr53732	National Governors Association Center and Council of Chief State

Table 4.16: Continued

Name	Hearing	Affiliation
		School Officers
N/A	110jhrhg33757	National School Boards Association
Michael Nettles	107shrg80479	National Assessment Governing Board University of Michigan
Rebecca Nieves Huffman	109shrg97751	President and CEO, Hispanic Council for Reform and Educational Options
Peter O'Donnell Jr.	109shrg26426 (2x)	National Academies' Committee on Prospering in the Global Economy of the 21st Century
Allan Olson	110hhrhg34015	Co-Founder and Chief Academic Officer, Northwest Evaluation Association
Lynn Olson and Linda Jacobson	109hhrhg28431	Education Week
Lawrence C. Patrick, III	109shrg97751	President & CEO, Black Alliance for Educational Options
Paul E. Peterson	108shrg94993	Hoover Institution, Harvard University, Education Next (journal)
Thomas W. Peterson, PhD	111hhrhg52859	Assistant Director for Engineering National Science Foundation
Dianne M. Piche	109hhrhg29626 110hhrhg37638	Executive Director Citizens' Commission on Civil Rights
John D. Podesta	110hhrhg34990 110shrg35072	President and CEO Center for American Progress Visiting Professor of Law Georgetown University
Delia Pompa	110hhrhg37638	Vice President, National Council of La Raza
Hugh B. Price	107shrg79941	National Urban League
N/A	109shrg28848	Project Lead the Way
Margaret E. Raymond, Dr.	108hhrhg94513 (2x)	Executive Director Center for Research on Education Outcomes, Hoover Institution, Stanford University
Michael A. Rebell	107shrg79941	Executive Director Campaign for Fiscal Equity, Inc.
Michael A. Resnick	110hhrhg37638	Associate Executive Director National School Boards Association
Maria Robledo	110hhrhg34631	Executive Director

Table 4.16: Continued

Name	Hearing	Affiliation
Montecel, PhD		Intercultural Development Research Association
Carl Rose	110shrg45589	Executive Director Alaska Association of School Boards
Arthur J. Rothkopf	110hhrhg35842 110jhrhg33757	Business Coalition for Student Achievement
Tom Rudin	109shrg26426	Senior Vice President for Advocacy Government Relations & Development College Board
Ricki Sabia	108hhrhg92309	Associate Director of Public Policy National Down Syndrome Society
Andres Schleicher	111shrg55474	Division Head and Co-ordinator, OECD Programme for International Student Assessment (PISA) and OECD Indicators of Education Systems Programme
Jon Schnur	110hhrhg37638	CEO and Co-Founder New Leaders for New Schools
Laura Slover	110hhrhg42335	Vice President, Achieve, Inc.
Jay Smink Ed.D.	110shrg45589	Executive Director National Dropout Prevention Center/Network at Clemson University
Charles E. Smith	109shrg22340	Executive Director, National Assessment, Governing Board
J. Alfred Smith Sr.	105shrg39641	Baptist Ministers' Unions
Nelson Smith	110hhrhg37638	President, National Alliance for Public Charter Schools
Lewis C. Solmon Dr.	108hhrhg93983	Executive Vice President, Education and Director Teacher Advancement Program Family Foundation, Santa Monica, CA
Barry Stark	110hhrhg37638	President, National Association of Secondary School Principals
N/A	109shrg49104164	State Educational Technology Directors Association
Adria Steinberg	110hhrhg37638	Associate Vice President Jobs for the Future

Table 4.16: Continued

Name	Hearing	Affiliation
N/A	109shrg49104164	Teach for America
Fred Tempes	110hhrhg34604	Senior Program Director, WestEd
Martha L. Thurlow	110hhrhg34174	Director, National Center on Educational Outcomes
Kristan van Hook	110hhrhg37638	Senior Vice President, Public Policy and Development, National Institute for Excellence in Teaching
Dennis van Roekel	111shrg55474 (3x)	President, National Education Association, succeeded Reg Weaver
Edna E. Varner	110shrg35072	Senior Program consultant Hamilton County Public Education Foundation and Public Schools' partnership
Reg Weaver	109hhrhg28839 110jhrhg33757 110hhrhg37638	President, National Education Association
Randi Weingarten	111hhrhg48732	President, American Federation of Teachers
James H. Wendorf	108hhrhg92309	Executive Director National Center for Learning Disabilities, Inc.
Amy Wilkins	110shrg34052	Vice President for Government Affairs and Communications The Education Trust
Deborah L. Wince-Smith	110hhrhg33801	President, Council on Competitiveness
Robert Wise	110hhrhg34631 110shrg35072 111hhrhg49499 110hhrhg37638	President, Alliance for Excellent Education Former governor of West Virginia Democratic Party
Mary Ann Wolf PhD	110hhrhg42335	Executive Director State Educational Technology Directors Association
Michael Wotorson	111hhrhg49499 111hhrhg55304	Executive Director Campaign for High School Equity
Joshua Wyner	110hhrhg37638	Executive Vice President Jack Kent Cooke Foundation
Peter Zamora	110hhrhg34017	Mexican American Legal Defense

Table 4.16: Continued

Name	Hearing	Affiliation
	110hhr37638	and Educational Fund Hispanic Education Coalition

4.4 The Coded Paragraphs

4.4.1 Introduction

In this subsection I present the descriptive statistics for the QDA codes that were applied to relevant paragraphs in the policy documents. For details on the criteria and procedures for the application of these codes see Subsection 3.5 and for the code identification numbers refer to Table 3.5 (p. 87).

There are basically two categories of statistical information about the codes that *RQDA* provides. They are about (1) each code individually, and (2) the relationships between the different codes. In addition these two types of information can be presented in aggregated form in tables or chronologically as time plots. Table 4.17 presents the total number of coded applied to the paragraphs and the number of coded paragraphs (see also Table 4.1). These numbers are different because the same paragraphs can have more than one code applied to it.

Table 4.17: Summary of Number of Codings

Collection	Presidential documents	Congressional hearings
Number files	127	87
Total codings	4,780	18,513
Coded paragraphs	1,252	5,353

If we aggregate the single code codings we obtain a useful statistic, the number and relative frequency of codings per code. The data are arranged in decreasing order in the tables shown here below.

The relationship between codes is a more interesting statistical analysis of the codings. It is reasonable to deduce that when two or more codes are applied to the same analysis unit, the paragraph, they are somehow related. For example, if a paragraph was coded by both *EducGap* and *StudentAssess*, we can assume that for the speaker these two concepts have some sort of relationship in that immediate context. I have used this concept when I developed the queries of the QDA database (Subsection 3.7).

The QDA software provided this type of descriptive statistics in the form of “cross-code” tables. Rows and columns refer to the QDA codes and at their intersection is the number of “overlaps,” the times that the two codes in question are applied to the same paragraph. For space reasons the columns only have the code IDs and the rows have both names and IDs. The cross-code tables are so wide that they are divided into two or three portions.

I created charts for each QDA code where the coding data are represented as scatter time plots where each dot represents the times that a code is applied to the paragraphs of a document. In addition to the points of the scatter plot is a trend line to give an idea of the change over time of the number of times that a code appears in a document. I also prepared time plots that display more than one QDA code for comparison purposes. These plots are shown in section 5 where they are relevant to the discussion.

The following two sections show the summary QDA statistics in table form of the two document collections. The time plots were generated for each of the 39 QDA codes (see Table 3.5). Those that are cited in the Discussion section are therein

shown, the others are in the Appendix C.

4.4.2 Presidential Documents

Here I present figures that show descriptive statistics for the codes that were applied to the relevant paragraphs of the Presidential Documents collection. The Table 4.18 shows the rank and number of the QDA codings. I calculated how many paragraphs in the document collection were tagged with each of the 39 QDA codes (column “Number of codings”) and ranked them by number of codings. There were a total of 4,780 codings (see Table 4.17), but often more than one code was applied to the same paragraph and thus the number of coded paragraphs was only 1,252. We notice that the most abundant QDA code, *SchoolReform*, was the most abundant code at about 9%, while the least common code, *ControlFed*, constituted about half a percent of the total codings. Thus, while there was clearly a difference in abundance of the codes, none of them exceeded 10% of the total. We will closely examine the data in the next section, but here we can remark that the bulk of the presidential documents were speeches by President George W. Bush in support of the “No Child Left Behind” Act of 2002. He stressed in those speeches the necessity for school reform and student assessment so that academic achievement would rise especially in mathematics and sciences. In addition school funding would be contingent on accountability. The president would rarely talk about federal control of education. The awareness of the high school dropout crisis would arise later as well as the rise in popularity of the charter school movement.

Table 4.18: Presidential Documents - Rank and Number of Codings

Code	Rank	Number of codings	Proportion
SchoolReform	1	425	0.0889
StudentAssess	2	349	0.0730
EducAchiev	3	342	0.0716

Table 4.18: Continued

Code	Rank	Number of codings	Proportion
EducFunding	4	332	0.0695
EducStandard	5	322	0.0674
EducMathSci	6	317	0.0663
StudentAll	7	289	0.0605
SchoolAccount	8	248	0.0519
EducGap	9	214	0.0448
StudentExpectation	10	205	0.0429
SchoolQuality	11	158	0.0331
StudentCareer	12	155	0.0324
NationProsperity	13	138	0.0289
NationTech	14	102	0.0213
ControlLocal	15	100	0.0209
StudentPoverty	16	99	0.0207
NationInterest	17	95	0.0199
ParentInvolve	18	93	0.0195
NationInternComp	19	86	0.0180
TeacherApprec	20	82	0.0172
StudentCollege	21	77	0.0161
ControlState	22	71	0.0149
TeacherQuality	23	68	0.0142
NationDuty	24	64	0.0134
SchoolChoice	25	58	0.0121
NationBestFirst	26	37	0.0077
TeacherProfDev	27	36	0.0075
SchoolFixClose	28	34	0.0071
NationEcon	29	28	0.0059
EducEquity	30	26	0.0054
EducResearch	31	25	0.0052
SchoolCharter	32	24	0.0050
StudentGraduation	32	24	0.0050
ControlFed	33	23	0.0048
SchoolBizInput	34	11	0.0023
TeacherAssess	34	11	0.0023
TeacherReplace	35	7	0.0015
TeacherCert	36	4	0.0008
SchoolDiversity	37	0	0.0000

Table 4.19 provides a good indication of the relationship between concepts in the Presidential hearings. For example the QDA code for the AGs (*EducAchiev*,

Table 4.19: Presidential Documents - Code Overlaps, 1

Code	1	2	4	5	6	7	8	9	10	11	12	13	14	15
ControlFed (1)	23	9	4	0	1	9	4	1	4	1	1	1	3	3
ControlLocal (2)		100	23	1	14	38	19	2	25	3	3	0	4	6
EducAchiev (4)			342	6	78	95	105	5	93	5	12	7	18	10
EducEquity (5)				26	7	1	4	0	6	1	2	0	2	3
EducGap (6)					214	44	108	2	67	11	22	4	20	19
EducFunding (7)						332	87	9	79	8	12	6	11	14
EducMathSci (8)							317	11	97	10	10	4	13	36
EducResearch (9)								25	8	0	0	0	1	1
EducStandard (10)									322	6	7	4	15	13
NationBestFirst (11)										37	4	2	4	9
NationDuty (12)											64	4	9	8
NationEcon (13)												28	5	5
NationInterest (14)													95	10
NationInternComp (15)														86

no. 4) has the most associated with the code for mathematics and science education (*EducMathSci*, no. 8) and second closest to the code for the testing of students (*StudentAssess*, no. 28). Such close relationship may be expected by those familiar with the literature on the AGs. However, a close association that may not be expected is between the code for the prosperity of the nation (*NationProsperity*, no. 16) and the code for all or every student (*StudentAll*, no. 27).

4.4.3 Congressional Hearings

Here I present tables and figures that show descriptive statistics for the codes that were applied to the paragraphs of the Congressional Hearings collection. The Table 4.22 shows the number of times that a certain QDA code was applied to a paragraph in this document collection. These values are arranged in decreasing order and their relative frequency, proportion, are provided. We have seen in Table 4.17 that 18,513 codings were applied to 5,353 paragraphs. By comparing this table

Table 4.20: Presidential Documents - Code Overlaps, 2

Code	16	17	18	19	20	21	22	25	26	27	28	29
ControlFed (1)	2	1	2	1	1	0	0	4	10	3	1	4
ControlLocal (2)	5	5	8	26	2	1	2	10	41	25	30	6
EducAchiev (4)	41	21	18	75	2	8	7	29	109	110	119	33
EducEquity (5)	4	2	0	2	0	0	0	3	5	8	2	1
EducGap (6)	43	27	6	45	0	2	2	16	76	78	95	39
EducFunding (7)	22	27	22	67	1	6	28	37	127	65	108	47
EducMathSci (8)	46	50	7	57	1	5	3	16	98	85	130	75
EducResearch (9)	1	0	1	2	1	0	0	1	6	3	6	1
EducStandard (10)	39	18	18	108	2	2	8	44	138	99	118	30
NationBestFirst (11)	4	11	0	2	0	0	0	5	8	3	4	13
NationDuty (12)	8	2	4	8	0	0	1	8	20	17	20	8
NationEcon (13)	4	10	0	1	0	0	0	4	9	10	2	13
NationInterest (14)	19	9	3	8	0	0	1	13	34	27	21	13
NationInternComp (15)	9	34	3	8	0	0	1	7	19	14	12	41
NationProsperity (16)	138	12	1	19	1	2	2	20	49	68	33	14
NationTech (17)		102	1	14	1	1	0	8	22	22	21	81
ParentInvolve (18)			93	18	2	8	28	29	29	8	23	6
SchoolAccount (19)				248	1	3	16	25	111	70	97	19
SchoolBizInput (20)					11	1	0	0	3	0	0	1
SchoolCharter (21)						24	7	7	8	1	1	2
SchoolChoice (22)							58	32	14	4	6	1
SchoolQuality (25)								158	43	41	25	9
SchoolReform (26)									425	108	137	37
StudentAll (27)										289	78	21
StudentAssess (28)											349	35
StudentCareer (29)												155

Table 4.21: Presidential Documents - Code Overlaps, 3

Code	30	31	32	33	34	35	36	37	38	39	3	24
ControlFed (1)	3	1	0	1	0	0	0	0	0	0	4	1
ControlLocal (2)	0	24	0	12	7	0	0	2	4	1	21	12
EducAchiev (4)	18	76	4	25	12	2	0	4	13	1	14	6
EducEquity (5)	0	4	1	2	0	0	0	0	0	0	0	0
EducGap (6)	20	55	2	28	5	0	0	2	6	0	9	2
EducFunding (7)	31	53	3	61	20	5	0	17	20	4	34	14
EducMathSci (8)	28	75	6	27	14	1	1	6	11	0	16	6
EducResearch (9)	0	1	0	2	0	0	0	3	1	0	2	1
EducStandard (10)	20	83	5	17	14	3	2	14	22	1	23	11
NationBestFirst (11)	6	1	4	4	1	0	0	1	1	0	0	0
NationDuty (12)	1	7	1	5	1	0	0	0	1	0	2	0
NationEcon (13)	5	1	1	0	0	1	0	0	0	0	1	0
NationInterest (14)	2	9	2	2	4	0	0	0	3	0	3	1
NationInternComp (15)	10	13	4	3	3	0	0	3	2	0	2	1
NationProsperity (16)	6	44	0	7	2	0	0	2	0	0	2	1
NationTech (17)	18	8	2	9	3	0	0	1	3	1	2	0
ParentInvolve (18)	2	15	1	6	12	1	0	1	5	0	4	4
SchoolAccount (19)	7	56	4	13	11	1	1	6	13	2	17	11
SchoolBizInput (20)	0	2	0	0	0	1	1	1	1	0	2	0
SchoolCharter (21)	1	1	1	1	0	2	0	0	1	1	2	1
SchoolChoice (22)	2	5	0	11	2	0	0	0	3	0	0	3
SchoolQuality (25)	5	20	7	10	8	0	1	0	12	2	7	11
SchoolReform (26)	13	93	9	24	25	7	1	7	17	5	34	11
StudentAll (27)	10	97	4	13	10	1	2	4	11	0	11	5
StudentAssess (28)	13	62	2	25	16	5	0	5	7	0	22	5
StudentCareer (29)	50	10	6	14	6	2	0	1	3	0	6	1
StudentCollege (30)	77	5	6	13	4	1	0	0	4	0	4	2
StudentExpectation (31)		205	1	14	10	0	0	2	7	0	5	7
StudentGraduation (32)			24	2	1	0	0	0	2	1	1	0
StudentPoverty (33)				99	5	0	0	7	10	0	7	4
TeacherApprec (34)					82	3	0	6	24	4	4	2
TeacherAssess (35)						11	0	2	3	1	3	0
TeacherCert (36)							4	1	2	0	1	0
TeacherProfDev (37)								36	6	0	2	2
TeacherQuality (38)									68	2	6	3
TeacherReplace (39)										7	1	2
ControlState (3)											71	4
SchoolFixClose (24)												34

with the corresponding one for the Presidential documents (Table 4.18), we can see that the ranking is, while not identical, very similar. The code for the achievement gaps (*EducGap*) is ranked first here at 8%, but ninth in the Presidential documents at 4.5%. In the Presidential documents the code for school reform (*SchoolReform*) ranks first at 9%, but is second here at 8%. We will see how this result is not surprising because the bulk of the Presidential documents are speeches where NCLB, a school reform, was promoted. In contrast, in the Congressional hearings NCLB was often a given and the AGs themselves were at the focus of attention. We can also notice that the differences in frequency were small and that none of the codes comprised more than 8% of the total codings.

Table 4.22: Congressional Hearings - Rank and Number of Codings

Code	Rank	Number of codings	Proportion
EducGap	1	1,466	0.0792
SchoolReform	2	1,448	0.0782
EducFunding	3	1,399	0.0756
StudentAssess	4	1,322	0.0714
EducAchiev	5	1,299	0.0702
EducMathSci	6	1,007	0.0544
StudentPoverty	7	939	0.0507
TeacherQuality	8	714	0.0386
SchoolQuality	9	703	0.0380
EducEquity	10	679	0.0367
EducStandard	11	649	0.0351
SchoolAccount	12	642	0.0347
StudentAll	13	641	0.0346
StudentGraduation	14	454	0.0245
StudentCareer	15	432	0.0233
StudentCollege	15	432	0.0233
EducResearch	16	425	0.0230
NationInternComp	17	313	0.0169
TeacherProfDev	18	311	0.0168
TeacherApprec	19	286	0.0154
SchoolFixClose	20	277	0.0150
NationTech	21	259	0.0140

Table 4.22: Continued

Code	Rank	Number of codings	Proportion
NationInterest	22	255	0.0138
ControlFed	23	215	0.0116
NationEcon	24	203	0.0110
NationProsperity	25	199	0.0107
SchoolDiversity	26	177	0.0096
ParentInvolve	27	171	0.0092
NationDuty	28	166	0.0090
SchoolChoice	28	166	0.0090
NationBestFirst	29	154	0.0083
ControlState	30	151	0.0082
SchoolBizInput	31	123	0.0066
ControlLocal	32	114	0.0062
TeacherCert	33	100	0.0054
StudentExpectation	34	84	0.0045
TeacherAssess	35	82	0.0044
SchoolCharter	36	39	0.0021
TeacherReplace	37	17	0.0009

A comparison between the relative coding frequencies of the 39 QDA codes in the two document collections is shown in Figure 4.2. Because the number of coded paragraphs is very different between the two types of data sources I compared only the proportions or relative frequencies. I performed a Wilcoxon signed rank test on the two series of proportions to determine whether one collection tends to have higher or lower coding frequencies (Glass & Hopkins, 1996, pp. 303–304). I obtained a probability value of 0.9176 and a V-value of 398. Hence, in statistical terminology, we failed to reject the null hypothesis and concluded that in general the coding frequencies are not different between the two sets of documents. In other words, we can consider that both document collections are compatible and that we are warranted in comparing and contrasting them.

Table 4.23 was constructed in the same fashion that Table 4.19 was. In this case the QDA code for the AGs (*EducGap*, no. 6) is closest associated with the code

for school reform (*SchoolReform*, no. 26) and not with the code for mathematics and science education (*EducMathSci*, no. 8) as in the Presidential documents. The second closest association is with the code for educational equity (*EducEquity*, no. 5). However, in the Presidential documents the association between the AGs and equity is weak, which is not surprising because the bulk of those documents were authored by a conservative administration.

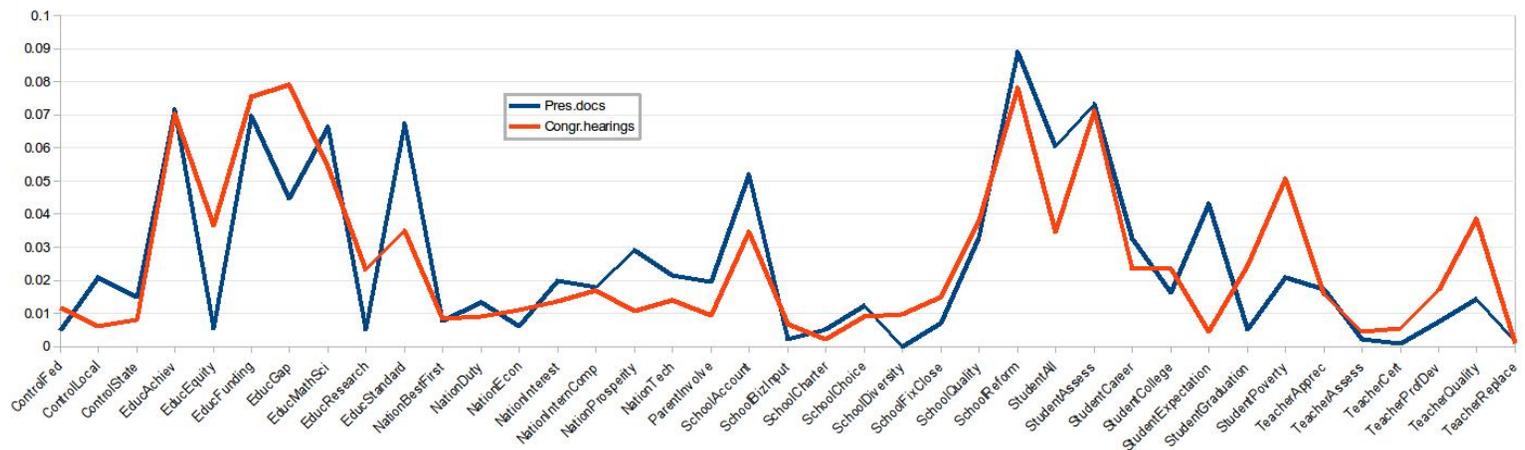


Figure 4.2: QDA Code Relative Frequency Comparison

Table 4.23: Congressional Hearings - Code Overlaps, 1

	1	2	4	5	6	7	8	9	10	11	12	14	15
ControlFed (1)	215	10	31	91	32	66	15	13	16	0	11	14	5
ControlLocal (2)		114	30	14	20	49	7	8	19	2	2	4	3
EducAchiev (4)			1299	115	448	316	248	150	204	11	20	46	31
EducEquity (5)				679	131	236	21	43	62	6	34	36	14
EducGap (6)					1466	281	328	126	155	49	44	79	63
EducFunding (7)						1399	259	143	171	28	42	55	73
EducMathSci (8)							1007	83	154	49	23	57	100
EducResearch (9)								425	78	4	9	10	16
EducStandard (10)									649	14	11	14	25
NationBestFirst (11)										154	12	19	52
NationDuty (12)											166	17	22
NationInterest (14)												255	55
NationInternComp (15)													313

Table 4.24: Congressional Hearings - Code Overlaps, 2

	16	17	18	19	20	21	22	23	24	25	26	27	28
ControlFed (1)	8	6	4	18	3	1	3	1	5	11	69	27	20
ControlLocal (2)	1	4	11	26	0	2	10	5	7	16	50	14	22
EducAchiev (4)	31	45	29	210	11	9	28	48	79	227	405	223	452
EducEquity (5)	32	14	13	64	2	3	29	44	20	66	225	117	61
EducGap (6)	48	59	29	214	16	8	38	83	63	179	419	211	444
EducFunding (7)	39	49	63	141	35	16	83	31	94	182	413	177	217
EducMathSci (8)	30	83	16	70	46	3	13	38	14	65	169	121	280
EducResearch (9)	8	14	18	60	8	1	14	18	31	49	117	45	103
EducStandard (10)	20	25	18	142	21	5	16	18	34	75	185	152	265
NationBestFirst (11)	16	46	1	7	8	0	2	1	1	7	14	14	17
NationDuty (12)	15	16	0	10	2	1	2	3	7	16	46	36	8
NationInterest (14)	41	39	3	12	6	0	2	7	3	24	61	28	18
NationInternComp (15)	28	97	0	18	19	0	0	1	5	20	39	32	24
NationProsperity (16)	199	34	2	18	10	0	0	7	4	25	50	40	22
NationTech (17)		259	2	18	21	0	0	2	1	12	44	27	29
ParentInvolve (18)			171	30	3	6	54	5	14	27	54	25	32
SchoolAccount (19)				642	9	7	39	25	78	139	343	130	273
SchoolBizInput (20)					123	0	1	2	0	7	30	9	14
SchoolCharter (21)						39	13	2	6	13	12	5	6
SchoolChoice (22)							166	4	24	55	64	22	37
SchoolDiversity (23)								177	6	24	42	18	35
SchoolFixClose (24)									277	95	122	19	105
SchoolQuality (25)										703	272	115	334
SchoolReform (26)											1448	275	392
StudentAll (27)												641	146
StudentAssess (28)													1322

Table 4.25: Congressional Hearings - Code Overlaps, 3

	29	30	31	32	33	34	35	36	37	38	39	13	3
ControlFed (1)	8	6	2	12	42	6	1	1	3	67	0	3	31
ControlLocal (2)	3	1	5	2	14	5	1	3	11	10	0	1	40
EducAchiev (4)	74	81	31	107	232	65	24	19	72	159	7	28	48
EducEquity (5)	34	30	15	37	227	41	12	23	19	213	0	19	19
EducGap (6)	96	144	20	189	346	35	2	13	61	139	4	66	33
EducFunding (7)	60	85	10	99	406	95	15	20	121	202	3	37	56
EducMathSci (8)	106	126	14	46	125	50	3	26	75	114	1	33	12
EducResearch (9)	21	30	5	44	87	14	9	5	38	66	1	12	7
EducStandard (10)	64	96	30	43	96	23	7	10	66	70	1	13	21
NationBestFirst (11)	33	23	1	16	0	0	0	1	2	8	0	30	4
NationDuty (12)	26	17	3	20	25	8	1	2	3	14	0	24	2
NationInterest (14)	43	19	2	26	31	6	0	1	9	15	0	38	9
NationInternComp (15)	92	57	2	25	18	4	0	1	15	14	0	48	4
NationProsperity (16)	48	19	7	35	33	2	0	0	3	7	0	41	2
NationTech (17)	113	43	6	23	11	5	0	0	6	9	0	49	3
ParentInvolve (18)	2	3	5	10	39	5	2	3	12	21	0	1	8
SchoolAccount (19)	36	42	14	62	78	20	7	5	27	49	4	9	36
SchoolBizInput (20)	25	24	2	13	7	6	0	1	14	5	0	8	1
SchoolCharter (21)	1	2	0	1	10	0	0	1	2	2	1	0	0
SchoolChoice (22)	2	3	2	6	46	1	1	1	6	17	1	1	6
SchoolDiversity (23)	14	22	6	17	87	5	3	5	5	35	0	3	4
SchoolFixClose (24)	10	11	2	33	58	10	2	2	15	15	4	3	9
SchoolQuality (25)	36	40	13	72	134	35	6	4	33	77	2	15	16
SchoolReform (26)	59	54	29	100	283	40	21	30	75	205	0	23	70
StudentAll (27)	70	68	32	54	110	18	4	11	25	103	2	21	25
StudentAssess (28)	60	97	24	98	164	30	34	17	60	76	1	14	44
StudentCareer (29)	432	173	8	86	32	16	0	2	14	24	0	72	8
StudentCollege (30)		432	11	104	68	7	1	4	19	35	0	26	6
StudentExpectation (31)			84	10	11	1	2	0	3	14	1	2	4
StudentGraduation (32)				454	81	3	2	1	5	15	0	44	8
StudentPoverty (33)					939	85	12	29	58	228	3	9	19
TeacherApprec (34)						286	16	21	60	143	4	0	6
TeacherAssess (35)							82	16	12	38	2	0	6
TeacherCert (36)								100	15	69	1	0	3
TeacherProfDev (37)									311	90	1	2	5
TeacherQuality (38)										714	9	4	28
TeacherReplace (39)											17	0	0
NationEcon (13)												203	2
ControlState (3)													151

4.5 The High Content Words

This analysis operated at the lowest level of aggregation, the words themselves. I performed text mining of the “high content words” contained in the coded paragraphs as previously described in Subsection 3.6. Further information is given in Appendix D.

In text mining we sometimes use the concept of “entropy” to define what we mean with high content. Entropy in this case is defined as the deviation from uniformity in a probability distribution. Low entropy terms are those that we would expect in any conversation or text. For example, in English we would expect the words “and,” “the,” “with,” and several other words to appear frequently. However, the term “equity” does usually not appear in common conversation or written material. Thus, infrequent words with respect to a normal text have high entropy and usually convey high information content.

In addition to screening for high content words, I created a ‘dictionary’ of words common to both document collections that contains terms of interest based on the research question, the literature, and the reading of the source documents (Table 4.26, p. 160).

The results of the text mining were used as a supplementary input for the construction of the narratives, the primary source being the results of the QDA database queries (Subsection 3.7). We can look high content words of a series of text as variables that are present in the whole of the documents with a certain frequency that we can rank. We can thus look at the most frequent terms, their ranking, and also compare rankings between document collections. We can infer that a high frequency of a term is a proxy for its importance in a discourse. Another way that we can analyze these words is to look for relationships. These relationships can be presented

Table 4.26: Dictionary of Terms of Interest

accountability	inequity
achievement	math
assessment	NAEP
competition	PISA
disadvantaged	poverty
economy	reform
education	school
equal	standard
equity	teacher
gap	TIMSS
global	

in three different ways, (1) in tabular form, (2) as cluster dendrograms (trees), and (3) by correlation plots where “close” terms are connected by lines. The usefulness of these types of representations is that in the discussion often I will related separate concepts and by using these text mining relationship calculation we can strengthen an argument by providing evidence from independent lines of inquiry.

The single word frequencies are thus relatively simple tabulations where the 50 most frequent high content words are given in decreasing rank. I have both stemmed and unstemmed terms in these tables. I used stemmed words in addition to unstemmed ones because stemming is a form of conceptual aggregation (Subsection 3.6). For instance, the words “standard,” “standards,” “standardized,” and “standardization” will all be coalesced into “standard” with a frequency equal to the sum of the aggregated unstemmed words.

I will now briefly describe the word frequency tables, Table 4.27 and Table 4.28 (p. 162) where the 50 most common words from the stemmed and the unstemmed text mining *corpora* are given. These two tables are quoted many times in the discussion

section, thus it makes sense to place them here.

Table 4.27: Presidential Documents - Most Frequent Terms

Rank	Unstemmed	Freq.	Stemmed	Freq.
1	school	6,791	school	6,807
2	child	6,192	child	6,192
3	student	2,352	student	2,352
4	education	1,873	educ	2,320
5	america	1,861	read	2,179
6	left	1,836	standard	1,903
7	teacher	1,830	america	1,861
8	standards	1,817	measur	1,846
9	math	1,725	left	1,836
10	people	1,362	teacher	1,830
11	system	1,307	math	1,725
12	help	1,296	help	1,633
13	accountability	1,265	achiev	1,621
14	believe	1,251	system	1,581
15	measure	1,174	account	1,580
16	achievement	1,126	expect	1,429
17	reading	1,102	believ	1,410
18	money	1,094	learn	1,386
19	country	1,080	peopl	1,362
20	read	1,073	test	1,208
21	gap	1,062	grade	1,179
22	act	1,055	parent	1,149
23	grade	1,040	countri	1,139
24	low	936	reform	1,100
25	results	934	money	1,094
26	federal	930	act	1,068
27	program	895	gap	1,062
28	public	871	result	1,038
29	parents	850	job	1,000
30	expectations	837	feder	943
31	kids	817	low	936
32	test	787	fund	931
33	scores	767	program	895
34	learn	765	teach	886
35	local	724	close	871
36	college	715	public	871
37	science	685	kid	854

Table 4.27: Continued

Rank	Unstemmed	Freq.	Stemmed	Freq.
38	jobs	665	score	814
39	time	609	word	798
40	closing	575	american	773
41	bigotry	565	nation	768
42	soft	557	challeng	760
43	write	554	colleg	749
44	century	552	set	748
45	set	539	scienc	735
46	level	537	local	727
47	american	534	time	702
48	twentyfirst	525	skill	629
49	expect	519	rais	628
50	learning	515	level	584

The four most frequent words present in the Presidential documents should not surprise. However, it is interesting that the words “measur,” “measure,” “test,” and “standards” rank high. The stemmed word “math” ranked 11th. Other interesting high rankings were for “believe,” “act,” “results,” and “parents.” I also obtained high rankings for “gap,” “closing” and “close,” and “rais.”

Table 4.28: Congressional Hearings - Most Frequent Terms

Rank	Unstemmed	Freq.	Stemmed	Freq.
1	school	28,978	school	29,158
2	student	26,506	student	26,506
3	education	11,477	educ	15,751
4	teacher	11,341	teacher	11,341
5	child	7,600	achiev	8,538
6	achievement	7,010	child	7,600
7	math	6,021	improv	6,224
8	program	5,348	math	6,026
9	nclb	4,378	nation	5,858
10	science	4,069	fund	5,507
11	gap	3,819	program	5,377
12	accountability	3,742	system	4,844
13	percent	3,576	district	4,753
14	standards	3,201	account	4,724

Table 4.28: Continued

Rank	Unstemmed	Freq.	Stemmed	Freq.
15	quality	3,174	provid	4,485
16	districts	3,162	nclb	4,378
17	federal	2,971	scienc	4,227
18	progress	2,857	level	3,891
19	left	2,780	requir	3,855
20	learning	2,751	gap	3,819
21	academic	2,733	assess	3,816
22	performance	2,718	support	3,798
23	nation	2,701	learn	3,771
24	data	2,656	test	3,762
25	system	2,645	standard	3,750
26	public	2,621	perform	3,717
27	support	2,568	percent	3,576
28	educational	2,565	graduat	3,481
29	law	2,547	develop	3,362
30	national	2,536	qualiti	3,193
31	provide	2,477	help	3,132
32	act	2,442	increas	3,074
33	level	2,434	feder	3,073
34	funds	2,407	grade	2,969
35	help	2,401	progress	2,967
36	reading	2,336	academ	2,944
37	college	2,198	measur	2,894
38	time	2,119	ensur	2,880
39	ensure	2,086	includ	2,840
40	research	2,076	left	2,780
41	american	2,049	public	2,715
42	grade	2,044	effect	2,709
43	systems	2,000	read	2,679
44	improvement	1,977	data	2,656
45	funding	1,976	success	2,655
46	qualified	1,971	law	2,614
47	improve	1,964	time	2,558
48	assessments	1,898	act	2,510
49	resources	1,889	american	2,502
50	skills	1,821	goal	2,473

Overall the table of most frequent words in the Congressional hearings was not very different. However, a few words appeared here that did not in the Presidential

documents. For instance the words “provid” and “provide” as well as “support,” “help,” and “resources” show a concern for the public funding of education that is not present in the Presidential documents.

Word associations are presented in three different fashions, (a) association tables, (b) cluster dendrograms, and (c) correlation plots. The association tables are calculated based on a non-parametric statistical dependence between word frequencies and usually provide Spearman’s rank correlation coefficients (Glass & Hopkins, 1996, pp. 129–130).

I created association tables for each of the words in the text mining dictionary (Table 4.26). If they are quoted only one time in the Discussion section they are presented in its immediate context. However, if they are referred to more than once I have placed them here. The others were placed in Appendix D.

The first term in the table is the word itself followed by the other terms most closely associated with it. The number below the term is a mathematical expression of the closeness to the first term. The terms are arranged in decreasing degree of closeness.

This closeness is calculated on a ranked per document basis. The more frequently two words are present in the same document and at a similar rank, the higher the correlation value. The meaning of these tables cannot be evinced by merely looking that these tables, rather, they have to be placed in a context. For example, table 4.29, which is quoted three times in the Discussion section is shown here. This table shows which stemmed words are closed to “account.” A reading of the Presidential documents shows that the term “accountability system” is very often used. We can also notice that President Bush accused his opponent, Senator John Kerry as well as and others of “weaken”-ing and “lower”-ing the “crucial” accountability requirements, i.e. “hold account”-able, present in the NCLB school reform act. Hence,

we can see that school reform was an important electoral speech component (see “vote”).

Table 4.29: Presidential Documents - Terms Associated with “account”

account	system	allow	crucial	excusemak	methodolog	attend
1.00	0.35	0.28	0.24	0.23	0.22	0.21
hold	weaken	determin	kerri	liabil	lower	medic
0.21	0.19	0.17	0.17	0.17	0.17	0.17
ration	vote	health	rid	curriculum	plenti	
0.17	0.17	0.16	0.16	0.15	0.15	

Likewise, Table 4.30 shows the terms closest associated to “account” in the Congressional hearings. It is interesting to notice which words occur in both tables and which do not. Common terms are “system,” “held/hold,” most likely from expressions such as “hold accountable” and “accountability system.” The interesting terms that are specific to this document collections are “disaggreg,” “subgroup,” and “nclb.” The minutiae of student assessment and school accountability were often discussed during the Congressional hearings. The innovation of NLCB was the dis-aggregation of the “student”-s into subgroups according to state defined racial, income, and ethnic lines. The results of these “measur”-ements would have grave “consequ”-ences on “school”-s that did not meet “standard”-s.

The hierarchical cluster dendrograms provide a visual representation of the closeness of the terms. The hierarchical clustering was performed according to Ward’s minimal variance method.⁵⁵ The algorithms that perform the clustering minimize the total within-cluster variance.

I show here the dendrograms that are referenced more than once in the Discussion

Table 4.30: Congressional Hearings - Terms Associated with “account”

account	system	held	nclb	hold	measur	subgroup	test
1.00	0.31	0.24	0.23	0.22	0.21	0.20	0.18
disaggreg	rate	consequ	current	multipl	standard	student	accur
0.16	0.15	0.13	0.12	0.12	0.12	0.12	0.11
meaning	school						
0.11	0.11						

section, while those that are only referenced once are placed in their immediate context. Figure 4.3 (p. 168) represents the clustering of the most frequent terms in the Presidential documents (Table 4.27).

Lastly, the correlation plots give a visual representation of the association tables. The text mining software, *tm*, creates them based on above mentioned word association algorithms. Because these correlation plots are mentioned more than once in the Discussion section I place them here.

Figure 4.4 is quite informative. Here we can notice the close association between “gap,” “close,” “america,” and “countri.” Another interesting cluster of terms is “result,” “measur,” “system,” and “account.” Remarkable is the connection between “reform” and “close” a good indication that the AGs are an integral part of school reform.

Again, it is useful to compare this figure with the corresponding one in the Congressional hearings (Figure 4.5, p. 170).

The cluster “scienc,” “nation,” and “math” is an indication of the importance of mathematics and science education for the nation according to the statements. The terms “school,” “provide,” “support,” “fund,” and “program” are probably an indication of the discussion of federal and local funding of schools as they attempt

to abide by schools reform laws and attempt to reduce the AGs.

The last graph that is referred to in the Discussion section is Figure 4.6 (p. 171). This correlation plot is based on the dictionary of terms of interest for the Congressional hearings.

I find very interesting the connection between “poverti,” “teacher,” and “equiti,” which is most likely a reflection of the concern in the hearing statement for the funding inequity in the U.S. public schools that causes a large disparity in teacher salaries and thus teacher quality. The connection between “gap” and “disadvantag” is another indication of the relationship between poverty and the AGs that appears in the Congressional hearing statements.

These observations will be related to the qualitative analysis and be greatly expanded in the next section.

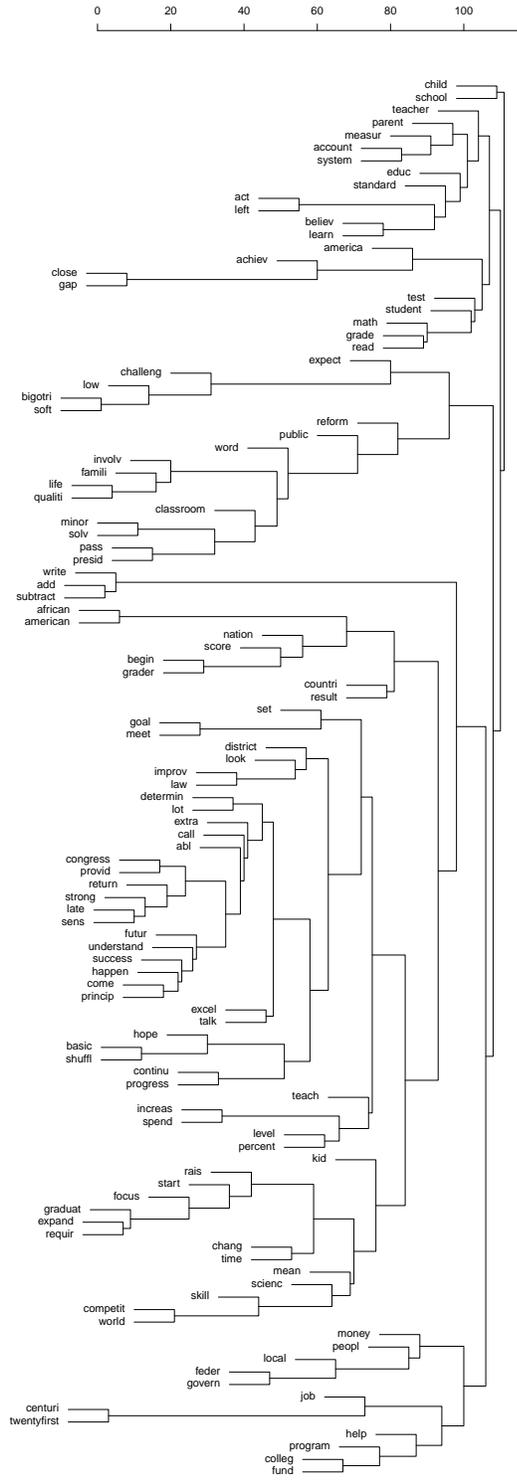


Figure 4.3: Presidential Documents - Dendrogram of Most Frequent Terms

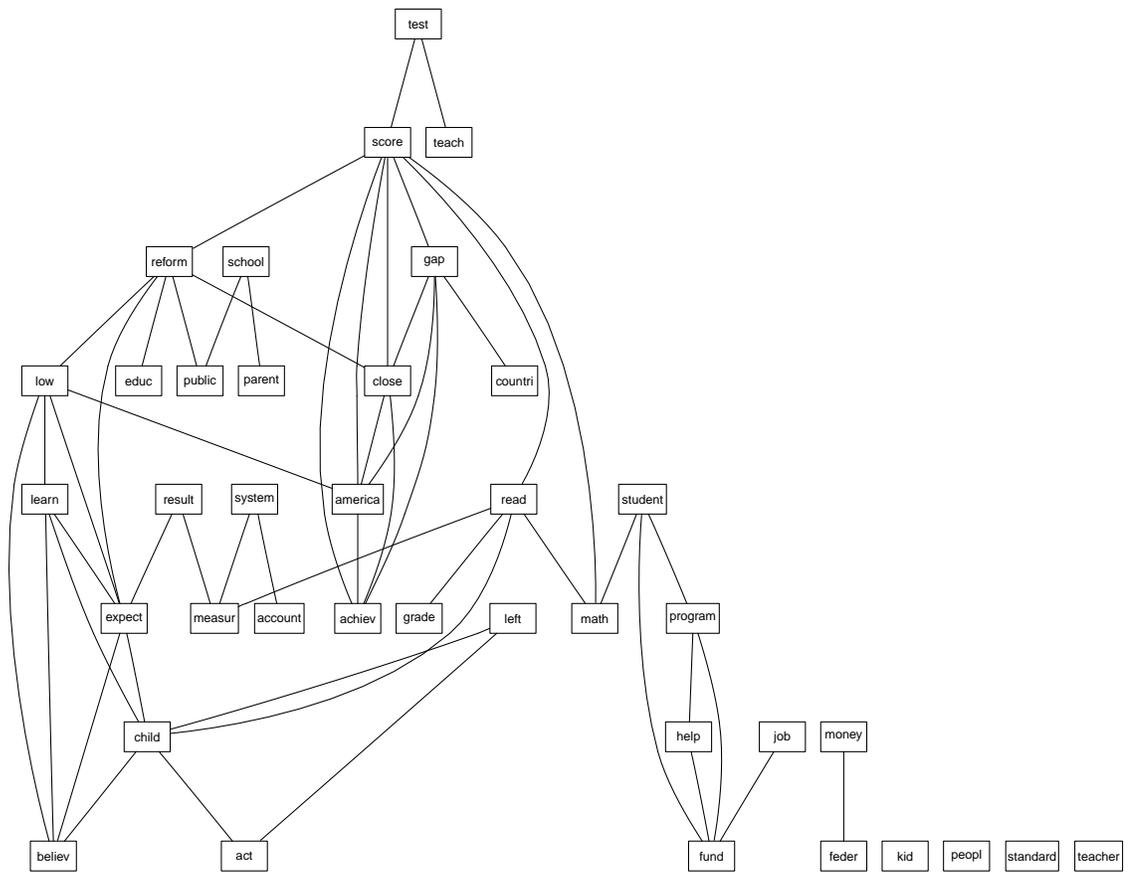


Figure 4.4: Presidential Documents - Correlation Plot of Most Frequent Terms

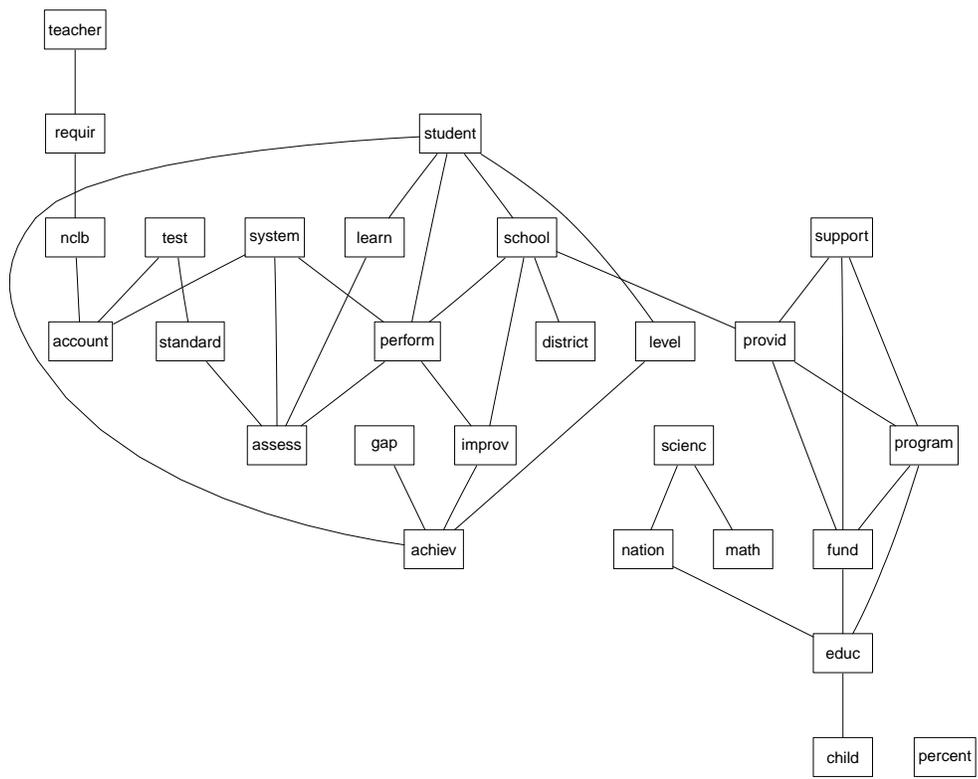


Figure 4.5: Congressional Hearings - Correlation - Frequent Terms

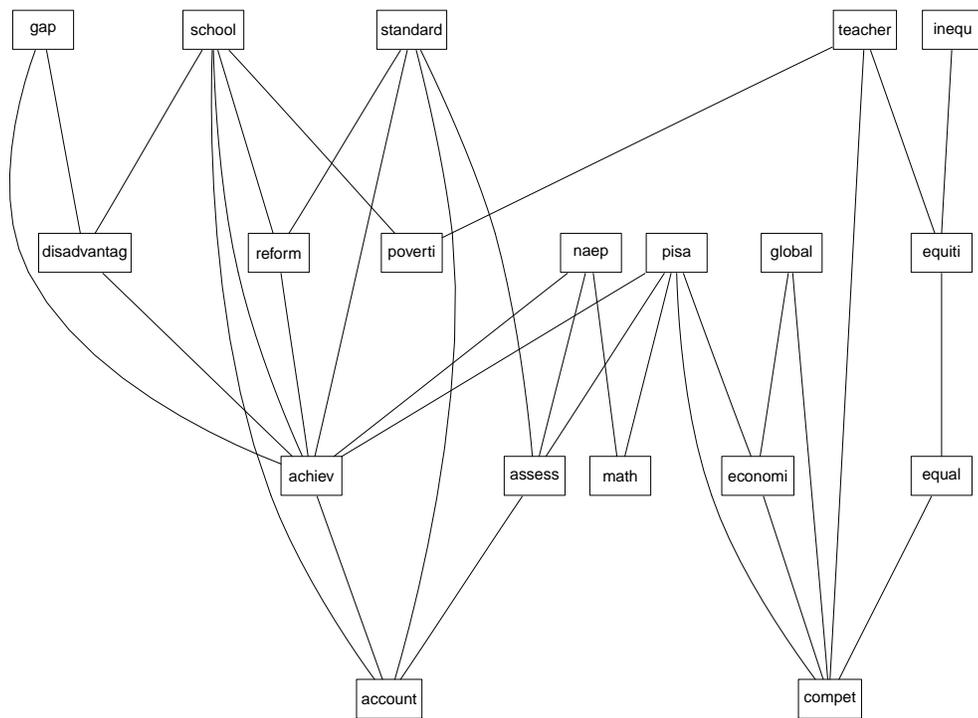


Figure 4.6: Congressional Hearings - Correlation - Dictionary

5. DISCUSSION

5.1 Introduction

The objective of this section is to combine the review of the relevant literature (Section 2) with the results from the QDA coding of the Presidential and Congressional statements (Subsection 4.4) and their text mining (Subsection 4.5) to answer the research question “how can Foucault’s concept of *governmentality* help us understand the federal political discourse on the achievement gaps?” The types of AGs that I examine here are the ethnic/racial/income and international achievement gaps. I organized this discussion according to the three dimensions of Foucault’s definition of *governmentality* (2009, pp. 108–109, Subsection 2.4). However, these definitions are not completely orthogonal and thus partially overlap (Figure 3.9, p. 80). Hence, some concepts are presented and revisited in more than one of the following three subsections.

As explained in Subsection 3.7, I have coded the source documents according to a scheme that I considered relevant to the discourse on the achievement gaps. Then I conceptually related these 39 codes to the three definitions, and performed QDA database queries to generate chronological lists of relevant passages (Figures 3.15 to 3.26). Based on those results, which were integrated with the quantitative data, I was able to construct the following narratives that were structured according to the three dimensions of governmentality.

5.2 The Ensemble

5.2.1 Introduction

The first dimension of *governmentality* was defined by Foucault as a **complex form of power** that is allowed by an ensemble of **institutions, procedures, analyses and reflections**, and **calculations and tactics** and is exercised on the **population** through the “apparatuses of security” and having political economy as **form of knowledge** (Subsection 2.4, point 1). I have been able to find only a definition for the last term, *apparatuses of security* as “techniques the government uses to provide society a feeling for economic, political, and cultural well-being” (Subsection 3.3, p. 73).

Michel Foucault’s thoughts on governmentality are not systematized in the sources. Further, the Foucaultian concepts of power and knowledge cannot be separated. As can be seen in the above mentioned subsection, the definition of apparatus (*dispositif* in French) includes both the institutions as organizations and the knowledge structures. This makes sense, as an institution is much more than the building it occupies, the office furniture it contains, and the people that work there. The institution itself is based on a charter, a mission, a function, and the function itself is based on a perceived need in the society for certain tasks to be carried out. If we ascend the causal ladder of any institution we will encounter a belief shared by most of society, a reason given for the existence of an institution that is a form knowledge and thus of power. For instance, most people will consider the school district a ‘natural’ part of society even if in reality there is no intrinsic reason at all for its existence.

How would we then discuss the first dimension of governmentality in relation to the achievement gaps? Firstly, it we should not look at the institutions themselves, because no new institutions were created to tackle the AGs. Rather, new mandates

were given to existing institutions, i.e. the US Department of Education or its predecessor the Office of Education, State and local education agencies, and the schools themselves. Thus, it would thus be more appropriate to set aside the **institutions** and to focus instead on the **procedures** (Subsubsection 5.2.2), **analyses and reflections** (Subsubsection 5.2.3), **calculations and tactics** (Subsubsection 5.2.4), **population** (Subsubsection 5.2.5), **form of knowledge** (Subsubsection 5.2.6), and **apparatuses of security** (Subsubsection 5.2.7). In other words, we should study how the AGs were perceived to constitute a problem that society needs to solve and what are the proposed remedies were.

5.2.2 Procedures

We can understand the governmentality of **procedures** in the context of the discourse on the achievement gaps by examining the **procedures** that the federal, state, and local governments have created to solve or mitigate the phenomenon.

The first time that one of the AGs is mentioned at the federal level of government and that the intent is expressed to solve it was in the “Elementary and Secondary Education Act of 1965” (“Strengthening and Improvement of Elementary and Secondary Schools,” ESEA, 20 USC Chapter 70, <http://www.nctic1p.org/files/40646763.pdf>). The following paragraph reproduces the “Declaration of Policy” of this law

SEC. 201. In recognition of the special educational needs of children of low-income families and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs, the Congress hereby declares it to be the policy of the United States to provide financial assistance (as set forth in this title) to local educational agencies serving areas with concentra-

tions of children from low-income families to expand and improve their educational programs by various means (including preschool programs) which contribute particularly to meeting the special educational needs of educationally deprived children.

The term “achievement gap” is not used in this act, but the concept is present. Indeed, this concept is more clearly seen in the following excerpt from a statement by President Lyndon B. Johnson about ESEA

This bill has a simple purpose: To improve the education of young Americans . . . How many young lives have been wasted; how many families now live in misery; how much talent has the Nation lost; because we have failed to give all our people a chance to learn . . . This bill represents a national determination that this shall no longer be true. Poverty will no longer be a bar to learning, and learning shall offer an escape from poverty. . . . For this truly is the key which can unlock the door to a great society. (Cited in Farkas & Hall, 2000, p. 59)

In this statement the key term is “all our people.” Later we will see that many times in the discourse on the AGs the expressions “all student” and its variants are used. The procedure to be used by the federal government was to provide ‘financial assistance’ to ‘local education agencies.’ Thus, Sec. 201 informs us that the immediate purpose of the federal funding of education was the improvement of the “educational programs” for “children of low-income families,” and the statement by the president shows that the ultimate purpose is to raise the academic achievement of ‘children of low-income families’ so that they can escape poverty and participate fully in the American society. It is interesting to note that no racial language is

used, but only reference to income is made. This situation changed when ESEA was re-authorized as NLCB in January 2002.

The ‘pivot’ of the federal education policy on the income achievement gap was the establishment of a funding stream. Funding is the **procedure** by which the U.S. federal government intended to guide and influence public education in the nation. Even though the amount was small compared to the whole of the education budget of a state, it would make a significant difference in a school or school district with a low tax base. ESEA included directives on eligibility, payments, and reporting. A complex system of disbursement of money and the preparation of reports was established between the (then) federal Office of Education, the state education agencies, and the local school districts. We could call this funding the main or primary **procedure** that then required secondary **procedures** such as reporting, and eligibility calculations and determinations. The reform of ESEA, called the “No Child Left Behind Act of 2001” (“An act to close the achievement gap with accountability, flexibility, and choice, so that no child is left behind,” NCLB, 107–110, <http://www2.ed.gov/admins/lead/account/nclbreferenc/reference.pdf>), would expand on these procedures and require additional ones, such as teacher qualifications and school interventions. Neoliberal ideology requires that the disbursement of public funds have a ‘return on investment.’ Thus, as hinted in the complete title of NCLB, the concept of “accountability” is central to the NCLB reform (Subsubsection 5.4.7, p. 344). Accountability by itself as a concept is more a **calculation and tactic** than a **procedure**, but its actualization is often called an “accountability system” or “accountability framework,” and is expressed by a series of **procedures** that follow certain **calculations and tactics**.

This situation is reflected by the text mining analysis (Subsection 4.5) as well as the coding statistics (Subsection 4.4). The word “accountability” ranks number 15

in word frequency in the Presidential documents (Table 4.27, p. 161) and number 12 in the Congressional hearings (Table 4.28, p. 162). The rank is similar for the corresponding stemmed term “account.” In the correlation plots of the most frequent words we notice that the word “accountability” is directly connected to “system” (Figure 4.4, p. 169 and Figure 4.5, p. 170). In addition on the clustering dendrograms, where the most frequent terms in the collections are related, we can see that system is the closest term to accountability (Table 4.29, p. 165, Table 4.30, p. 166; Figure 4.3, p. 168; Figure 5.1, p. 178).

The QDA code used for accountability (*SchoolAccount*) ranks number 8 out of 36 in the Presidential documents (Table 4.18, p. 147) and number 12 of 37 in the Congressional hearings (Table 4.22, p. 152). Figures 5.2 (p. 179) and 5.3 (p. 179) provide a representation of the times that the concepts of accountability, achievement gaps, and funding are present in the Presidential documents and Congressional hearings. We can see that around the year 2008 accountability and the AGs are most frequently mentioned in the documents. As explained in Subsection 3.5 (p. 89), the fitting curves in the coding time plots are only illustrative and they do not imply the presence of an actual underlying trend. For an idea of the movement or tendency of a QDA code over a certain time span one should look at the “density” of the dots as well as their frequency values (number of codings).

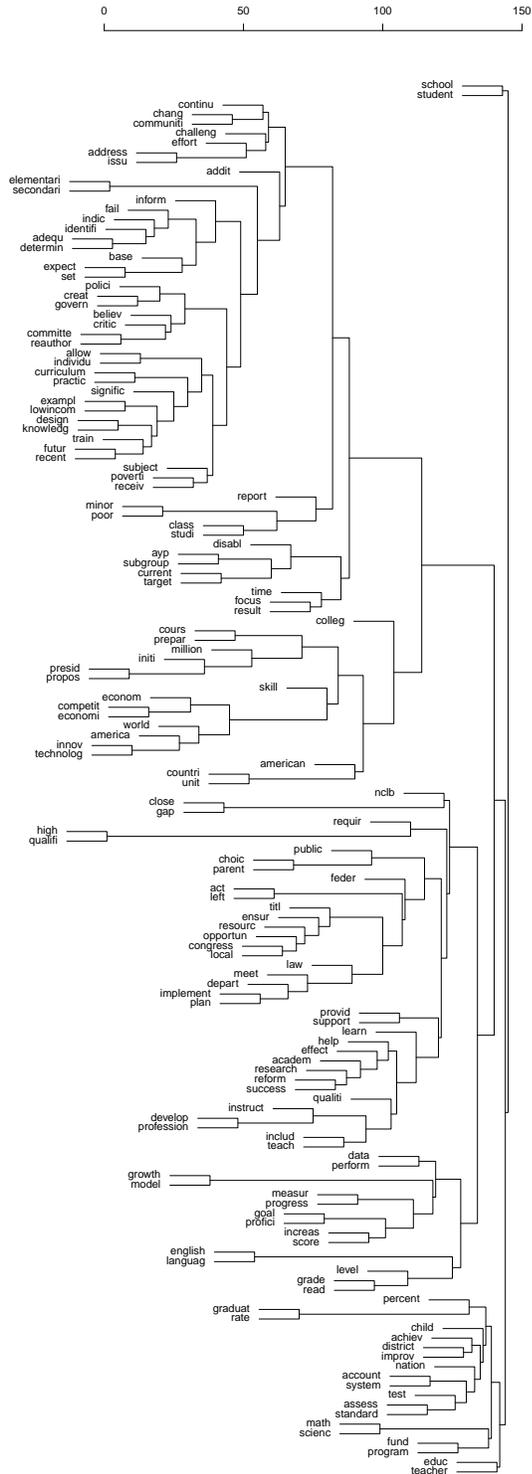


Figure 5.1: Congressional Hearings - Frequency

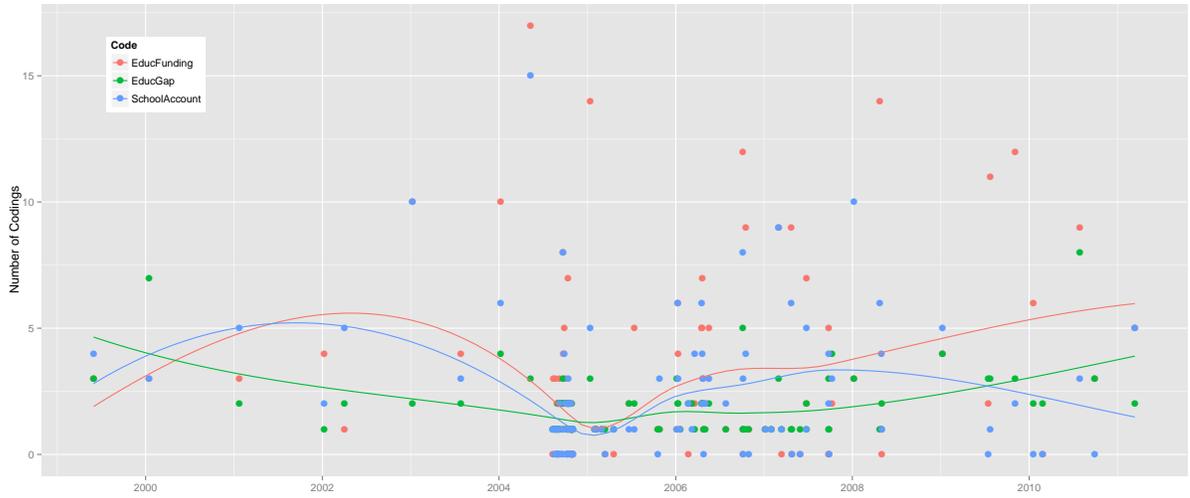


Figure 5.2: Presidential Documents - Accountability, AGs, Funding

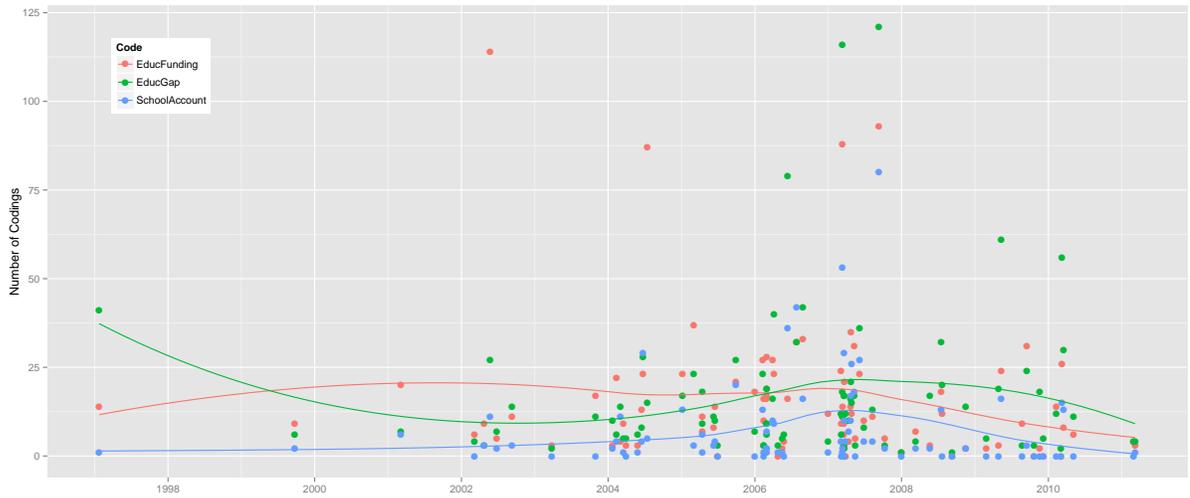


Figure 5.3: Congressional Hearings - Accountability, AGs, Funding

To obtain a more grounded understanding of accountability we will now examine excerpts from statements where this concept is mentioned in conjunction with the achievement gaps and try to place them in their historical context. I start with the following statement by Dr. Roderick Paige, the Secretary for Education during the first George W. Bush administration, who said on 2001-03-06

No Child Left Behind provides a new framework of accountability for ensuring that the Federal investment in Title I is well-spent and delivers the results intended when it was first authorized 36 years ago: closing the achievement gap between poor children and their more advantaged peers. The foundation of this new accountability framework is annual State assessments in reading and math for all students in grades 3-8, instead of the current law requirement for testing only twice during these critical formative years. The President's budget provides \$320 million to help States develop and implement these additional assessments. (107shrg70756, Table 4.4, Table 4.12, Table A.7)

This statement was given after the law was introduced in the U.S. Congress (2001-01-23), but before it was passed (2001-06-14). The secretary stated that for 36 years ESEA had not been able to fulfill its purpose. The remedy for this lack of efficacy was going to be 'accountability' in the form of yearly student assessments and additional funding. We have thus the creation of a chain of governmental actions from a perceived problem, the income based AG (*analysis and reflection*), to the decision to act by supplemental funding of poor schools (*calculation and tactic*), to the institution of federal funding (**one procedure**), to the apparent lack of efficacy (*analysis and reflection*), to accountability (*calculation and tactic*), to yearly student assessments and increased funding (**two procedures**). The reason of government has

doubled the number of procedures.

President Bush in a speech made about two years later (2003-01-08) on the anniversary of the implementation of NCLB made a very similar statement

In return for receiving Federal money, States must design accountability systems to measure whether students are learning to read and write and add and subtract. In return for a lot of money, the Federal Government, for the first time, is asking, “Are we getting the kind of return the American people want for every child?” (WCPD-2003-01-13-Pg39, Table 4.3, Table A.3)

The **tactic** of accountability creates however a self-feeding mechanism. Money is given by the government, accountability is asked in return, that requires a whole set of other procedures such as testing and reporting that themselves require money. Thus, a series of complex **calculations** of the cost of assessment is set up and this cost is then allocated between federal, state and local authorities with an intricate system of negotiation. Hence, later in the same speech the president said

The main reservations we’ve heard in the year since we passed the reform have come from some adults, not the children, who say the testing requirement is an unfunded mandate on the States. Well, that’s not true. We put up \$387 million to provide for testing, to pay for the testing in this year’s budget. I intend to ask for the same amount next year. We demanded excellence. We’re going to pay for the accountability systems to make sure that we do get excellence.

The original intent of ESEA was to provide additional funding to low-income schools for educational interventions and salaries for teachers and teacher assistants.

However, the “logic” of neoliberal government requires that a large amount be spent on the erection of bureaucratic structures that enlarge government itself to provide and manage accountability. However, the procedures that accountability requires, and that the president collectively calls “measurement,” have to be justified as in the following quote

Accountability tells you what’s going right, and it tells you what’s going wrong, and it shows you where the emphasis needs to be. . . . In States that measure, you’ll find that the achievement gap is closing dramatically. (WCPD-2003-08-04-Pg984-2, Table 4.3, Table A.3)

President Bush sometimes placed the **tactic** of accountability and the **procedure** of measurement next to each other. For example

“And as a result of strong **accountability measures** and good teachers and more funding, the results are positive,” and “the way to determine whether or not reading programs work is to **measure**. If a child can read, it will show up on an **accountability system**.” (WCPD-2004-01-12-Pg28, boldface not in original)

The text mining of the Congressional hearings shows that the term “measure” is fairly closely associated with “accountability” (0.21, Table 4.30, p. 166). In addition, the correlation plot of the relevant terms for this collection shows accountability directly connected to “assess,” a form of measurement (Figure 4.6, p. 171). The correlation plot of the most frequent terms in the Congressional hearings shows that “accountability” is directly related to “test” as well as “system” (Figure 4.5, p. 170). In the clustering dendrogram the closest terms to the couple “account” and “system” are “measure” and “rate” (Figure 5.4, p. 184). The correlation plot of the most

frequent terms of the Presidential documents connects “accountability” to “system” and “system” to “measure” (Figure 4.4). Also, as in the case of the Congressional hearings, the cluster dendrogram has the term “measure” on the closest branch to the couple “account” and “measure” (Figure 4.3, p. 168). In the correlation plot of the Congressional hearings the term “assess” is directly connected to the term “system” which is part of the complex “accountability system” (Figure 4.5).

In addition to the text mining, the coding statistics can provide us with information on the close relationship between accountability and measurement of student achievement. Table 4.19 (p. 149) and Table 4.23 (p. 156) show that the second most frequently associated code to *SchoolAccount* is *StudentAssess* after *SchoolReform*. The time graph Figure 5.6 shows that between 2006 and 2008 the trends of the codes for the AGs, schools accountability and student assessment are relatively high at the same time. The data are less clear in the case of the Presidential documents (Figure 5.5, p. 185), but still show during the same time that both the codes school accountability and student assessment increased.

The following quote shows how the president closely connected the *procedure* of funding to the *tactic* of accountability, to the *procedure* of student assessment, and then with a benefit for the *population* through the public school system as an *apparatus of security*.

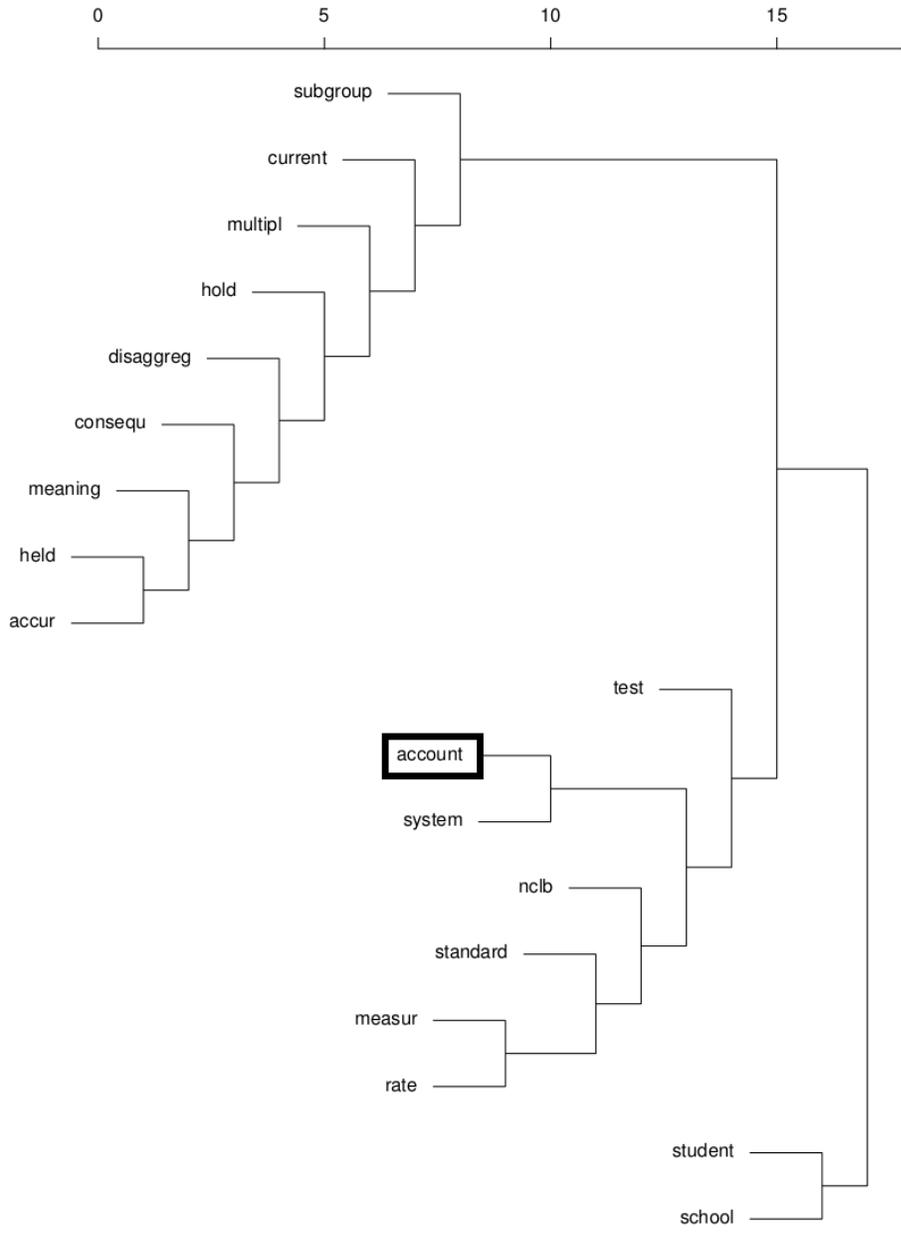


Figure 5.4: Congressional Hearings - “account”

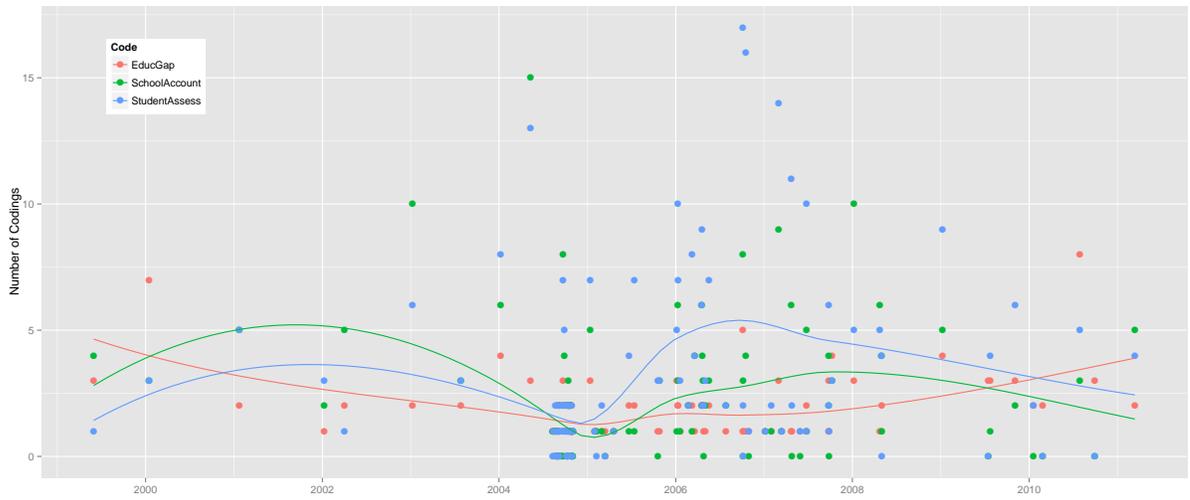


Figure 5.5: Presidential Documents - Accountability, AGs, Student Assessment

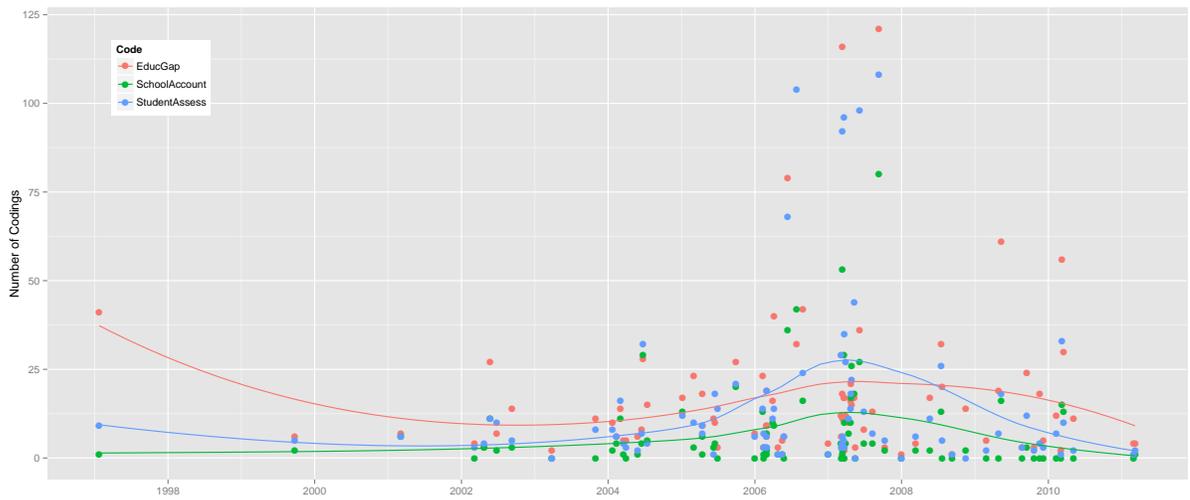


Figure 5.6: Congressional Hearings - Accountability, AGs, Student Assessment

And so, in return for increasing Federal spending, I said to Congress, “Why don’t we insist that States measure early? Why don’t we insist that there be strong accountability measures so we can determine whether curriculum are working, so we can correct a child’s learning problems early before that child just moves through grade after grade?” (WCPD-2004-09-27-Pg2085)

However, by this time rhetoric had already collided with reality and the implementation of such a system of accountability had received opposition from many voices in the periphery of education politics. An obvious objection that could be raised is that even the most elaborated and sophisticated system of measurement and reporting suffers from a time lag that greatly diminishes its utility. Another objection is that what is measured may or may not be what is important or relevant to the educational process. The president addressed the second objection a few times (e.g. WCPD-2004-09-27-Pg2085). Basically, President Bush stated that we are not going back to the (bad) old times and that the system is working. See for instance

And so, now, in return for increased Federal money, States must design accountability systems which are able to determine whether or not we’re meeting the high standards we’ve set. You cannot solve a problem until you diagnose it. And so the idea is to determine early in a child’s career whether or not he or she can read and correct the reading problem today, before it’s too late. We’re closing a minority achievement gap in America. The system’s working, and we’re not going to go back to the old days of no accountability and no excellence in the classrooms, some of the classrooms of America. (WCPD-2004-10-11-Pg2223)

The appeal of President Bush to ‘hold the course’ is also apparent in the text

mining analysis. Among the terms closely associated with “account” are “weaken” (0.19) and “lower” (0.17). Those numbers reflect that often the president stated that we should not weaken or lower the accountability system (Table 4.29, p. 165).

We have previously seen the establishment of a governmental initiatives spiral in the form of *procedure - analysis & reflection - calculation & tactics - new procedure*, and specifically from AG to yearly universal student assessments and additional funding. There are also other spirals such as is mentioned in the following statement by the House Committee on Science

At its center, however, “No Child Left Behind” seeks to hold schools accountable for the progress of their students by requiring that all students in grades 3-8 be tested every year in reading and math (and, beginning in 2007, science), and that all students make “annual yearly progress” toward proficiency in these subjects. Failure to do so results in a school being identified as “needing improvement,” which triggers various interventions, such as additional funding, choices for parents and corrective actions. (108hhr92513, 2004-03-18, Table 4.5, Table A.17)

The procedure for the determination of the Adequate Yearly Progress (AYP) was by many considered unsatisfactory. It could for legal reasons not be abolished, thus requests for its change were made. A popular reform of the AYP was the adoption of ‘growth models.’ Without going into the detail of what this entails, it suffices to say that it represents a significant complication where the test scores of each student would be tracked and compared over time. One can only imagine the increase in data gathering, processing, storage, and analysis that the growth model would require. The process of the calculation and notification of the AYP created through a chain of governmental causation a new *calculation*, the growth model, and

its implementation constituted a new *process*. A hearing by the House Committee on Education and the Workforce was dedicated to this problematic (109hhrhg28839, 2006-07-27, Table 4.5, Table A.32).

Joel Klein, Chancellor of the New York City Department of Education, made the following statement during this hearing that illustrates the increasing complexity of these *procedures*.

The sophisticated growth model we are crafting is another way we hold our schools accountable for providing New York City schoolchildren with the educations they need and deserve. Our new measure of progress will be more precise than what is required under No Child Left Behind. We will measure all year-to-year gains, even those that don't boost students to proficiency, and all losses. I think this will be a vast improvement that will start placing incentives where they belong: on educating all students.

The following year (2007-03-21) a similar hearing was held by the same House Committee on Education and the Workforce (110hhrhg34015, Table 4.5, Table A.50). Allan Olson, Co-Founder and Chief Academic Officer, Northwest Evaluation Association said during his statement

If the nation is serious about accountability in education and about making sure that tax dollars invested in education result in a student population that is prepared for work and postsecondary education, we should not back away from the concept of testing. The issue is not whether or not to test but what kind of testing will yield the kind of information that actually helps teachers help students. Expansion in the use of growth measures rather than one-shot grade-level tests can help educators, policymakers, and parents determine whether schools and students

are actually making required progress toward proficiency. They also will tell educators, school board members, parents, and students what areas of learning they need to be working on to make desired growth targets.

We can appreciate from this excerpt how the procedure of testing is now a ‘natural’ aspect of school accountability, which itself has become a ‘natural tactic’ of school policy. Notice also the proposal for ‘expansion in the use of growth measures’, which is clearly an increase in sophistication and complexity of student assessment. As such it would require more resources and administrative attention. Finally, notice how at the end a mention is made of what would appear to be a benefit to the students themselves, but in reality is about the ‘desired growth target,’ a governmental *calculation*.

The next president, Barack Obama, continued and even made more stringent the accountability requirements of his predecessor. See for instance the following quote

Now, before a State is even eligible to compete, they’ll have to take an important first step. And this has caused some controversy in some places, but it shouldn’t be controversial. Any State that has a so-called firewall law will have to remove them. Now, here’s what a firewall law is. It basically says that you can’t factor in the performance of students when you’re evaluating teachers. That is not a good message in terms of accountability. So we said, if you’ve got one of those laws, if you want to compete for these grants, you got to get rid of that law. (DCPD-200900884, 2009-11-04, Table 4.1, Table A.1)

Now, in some cases, that’s going to mean restarting the school under different management as a charter school, as an independent public school formed by parents, teachers, and civic leaders who’ve got broad leeway

to innovate. And some people don't like charter schools. They say, well, that's going to take away money from other public schools that also need support. Charter schools aren't a magic bullet, but I want to give States and school districts the chance to try new things. If a charter school works, then let's apply those lessons elsewhere. And if a charter school doesn't work, we'll hold it accountable, we'll shut it down. (DCPD-201000636, 2010-07-29)

This is an indication of how pervasive the neoliberal way of thinking about government in is U.S. politics. It crosses party lines. This statement is even more surprising considering that it was made in front of a school audience.

5.2.3 *Analyses and Reflections*

I understand the *analyses and reflections* to be the driving force of the expansion of the *administrative state*. We have seen in the previous subsection (5.2.2) examples of how the items of the first dimension definition of governmentality work with each other and create each other. Tensions in society and in the political sphere create discourses that engender political action that is actuated in the form of *procedures*. They in their turn will create other tensions and so on. Another source of frictions is the vast increase of data available to the body politic. Not only data in the form of tables and graphs, but also in a more direct form through the media, travel and business. There is no need to dwell on the power of the images and reels of 9/11 or of Katrina and how they have influenced the political discourse.

We will here examine some texts that in my opinion show this type of discourse. We should keep in mind that often there is no clear distinction between an *analysis and reflection* and the following item *calculations and tactics*. The 'thinking' is closely connected to the 'practice.' For instance, the concept of the need for testing

or other forms of accountability is close to the implementation of these ideas. The concept of elimination of the achievement gap depends on the availability of the statistical *calculations* and *reflections* of social justice. The necessity of the use of education research expresses itself in the legislated requirement to use this *tactic* in school reform.

Thus, the problem of the achievement gaps is in itself an *analysis and reflection*, and ESEA and NCLB are *apparatuses of security* that are grounded on this *analysis and reflection*. In 1997, during a Senate hearing (105shrg39641, Table 4.4, Table A.5), Carolyn Gettridge, Superintendent of the Oakland Unified School District said the following

We have, however, created a teachable moment of national proportion on issues of national urgency. Consequently, we also intend this testimony to add our perspective to solutions which address the underachievement of African-American and other minority children. Our reforms attempt to reform educational processes based on a system of “sorting”, to a system of “achieving”. We have fundamentally shifted our thinking from the right of students to attend school, to the right of students to achieve in school. (Table 4.13)

Notice the expression ‘shifted our thinking,’ which indicated a new *analysis and reflection* that went beyond “Brown versus Board of Education.” Where the focus was ‘equal opportunity’ is now ‘equal results.’ That change of thinking has large implications in *calculations and tactics* and *procedures* as is repeatedly discussed in this subsection. At the end of her statement the superintendent stated

The New York Times reported this past week on the growing gap in achievement between white and minority students. These statistics are

both mind-numbing and a cause for moral outrage. Katie Haycock, Executive Director of the Education Trust, which produced the report, stated that, “There are schools that are able to overcome the problems of urban life and get terrific results. The question is when are we going to make them the rule and not the exceptions. We think kids are achieving at low levels not because of poverty or because their parents are less well educated, but because we’re systematically teaching them less.”

The question is not, whether or not we must act; rather we are confronted by questions about how best to act, and how quickly can we act? The answers to these questions are not simple and they are not comforting. Quite to the contrary, the answers to these questions challenge some of the fundamental assumptions we have about the purpose and design of education.

In addition, Carolyn Gettridge made a reference to “A Nation at Risk” (National Commission on Excellence in Education, 1983) as many will do in this period. In the two above paragraphs we see the beginning of a large political discourse on the AGs at a federal level. We can perceive the clash of two opposing *analyses and reflections* with regard to the resolution of the AGs, poverty versus schools. We will notice that this will be an asymmetrical opposition where the ‘poverty’ pole is overshadowed by the ‘school’ pole. By now the ‘war on poverty’ had faded from the public mind due to a combination of its success and the ascendancy of neoliberalism. The following quote by Dr. Eric J. Smith, a superintendent in Maryland, closely expresses this *reflection*

The No Child Left Behind Act has transformed the debate about public education in America from blaming societal issues outside of schools’

control to a focus on what we do control – our ability to teach every child to rigorous standards. (108hhr94513, Table A.20, 2006-04-23)

Indeed if we look at the time charts of the codes for ‘school/student poverty’ and ‘school reform,’ we can see that at the trend level in the Congressional hearings there is slightly more mention of the second concept than the first one (Figure 5.8). The difference is much more evident in the Presidential documents (Figure 5.7). The text mining analysis does not show any association between the terms ‘poverty’ and ‘reform’ as can be seen for the Congressional hearings in Tables D.28 and D.29, and for the Presidential documents in Tables D.13 and 5.2.

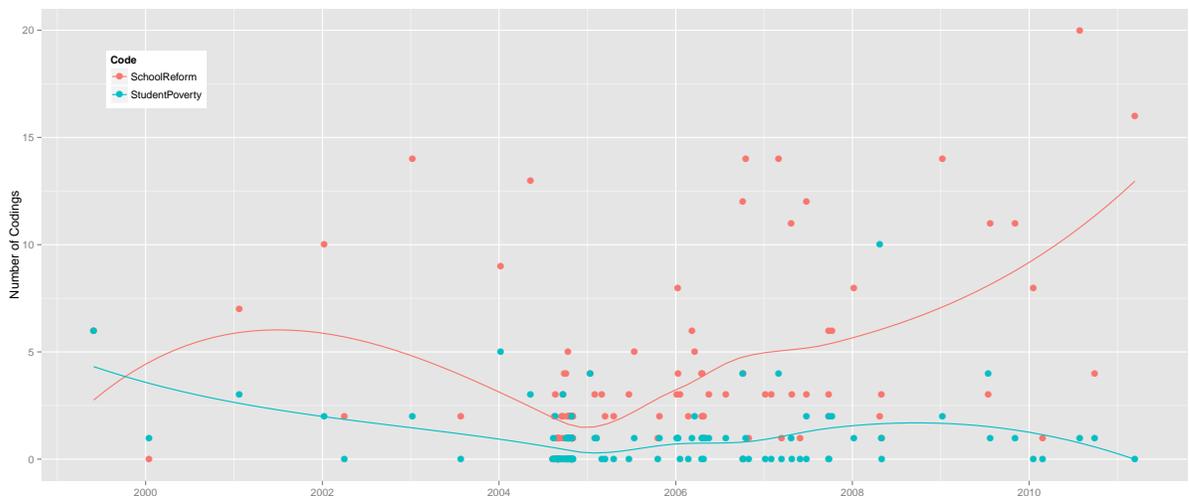


Figure 5.7: Presidential Documents - SchoolReform, StudentPoverty

With that in mind let us examine an excerpt from a statement given by Christopher J. Dodd, a Democratic Senator from Connecticut

Today, low-income, minority, urban and rural children do not have equal educational opportunity, so that for many of them, the American promise

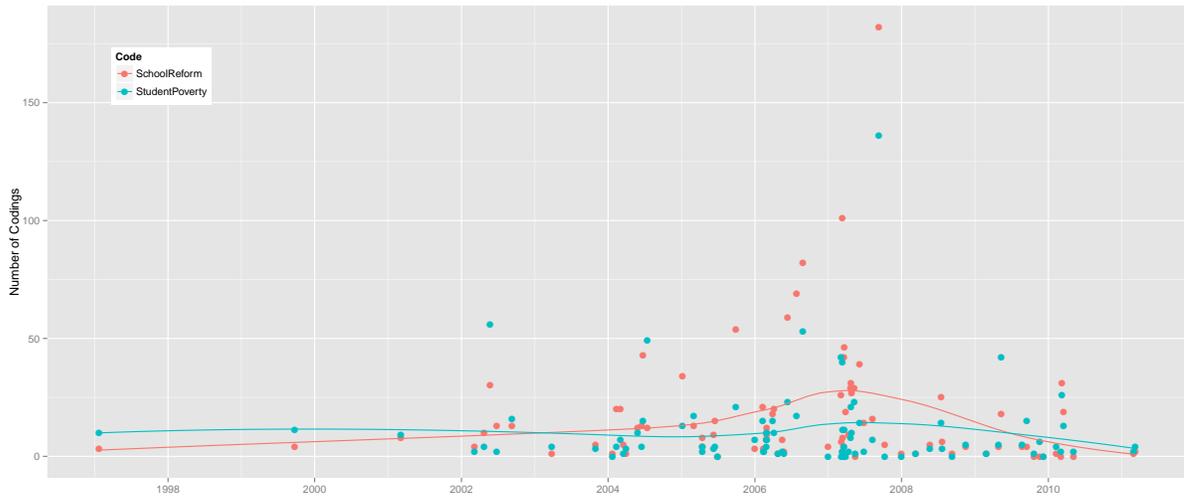


Figure 5.8: Congressional Hearings - SchoolReform, StudentPoverty

is empty. This is simply unacceptable. Regardless of one's ideology, regardless of one's political persuasion, it ought to be as we enter the 21st century totally unacceptable that we would say to a child in America that your opportunity to succeed and to contribute to your family and this Nation depends upon the economic circumstances into which you were born. (107shrug79941, 2002-05-23, Table 4.4 and Table A.10)

The rhetoric conforms to what we would expect from a senator of the Democratic Party. However, the political action from this type of *analysis and reflections* would be substantially identical to the one from the Republican Party and President Bush. They all agree on funneling large amounts of money from the federal treasury through a complex bureaucratic structure that would **not** place money in the hands of the poor, but rather support additional payroll for schools and school districts, consultants, professional development, furniture, technology, and tutoring.

The following quote is from a speech given by President William Clinton on

The succeeding president, George W. Bush, made the following year (2001-01-23) a speech when he submitted NCLB to Congress. In the following excerpt we can appreciate the *reflections and analyses* of several problems pertaining to public education in the U.S. as well as economic ones

We must confront the scandal of illiteracy in America, seen most clearly in high-poverty schools where nearly 70 percent of fourth graders are unable to read at a basic level. We must address the low standing of America test scores amongst industrialized nations in math and science, the very subjects most likely to affect our future competitiveness. We must focus the spending of Federal tax dollars on things that work. Too often, we have spent without regard for results, without judging success or failure from year to year. (WCPD-2001-01-29-Pg217, Table 4.3 and Table A.3)

The connection between public education and economic competitiveness will be a very common *analysis and reflection* in policy discourse for many years beginning about the year 2004 (Figure 5.10 and Figure 5.11). As we will see, it was propounded by many politicians and policy experts over a wide ideological spectrum.

In a speech given on 2003-07-28 at a conference of the National Urban League the president again made the connection between the economy and public education

The truth of the matter is, the future of our economy and our country depend upon good schools in all our neighborhoods. Equal education is one of the most pressing civil rights of our day. Nearly half a century after Brown v. Board of Education, there's still an achievement gap in America. (WCPD-2003-08-04-Pg984-2, Table 4.3 and Table A.3)

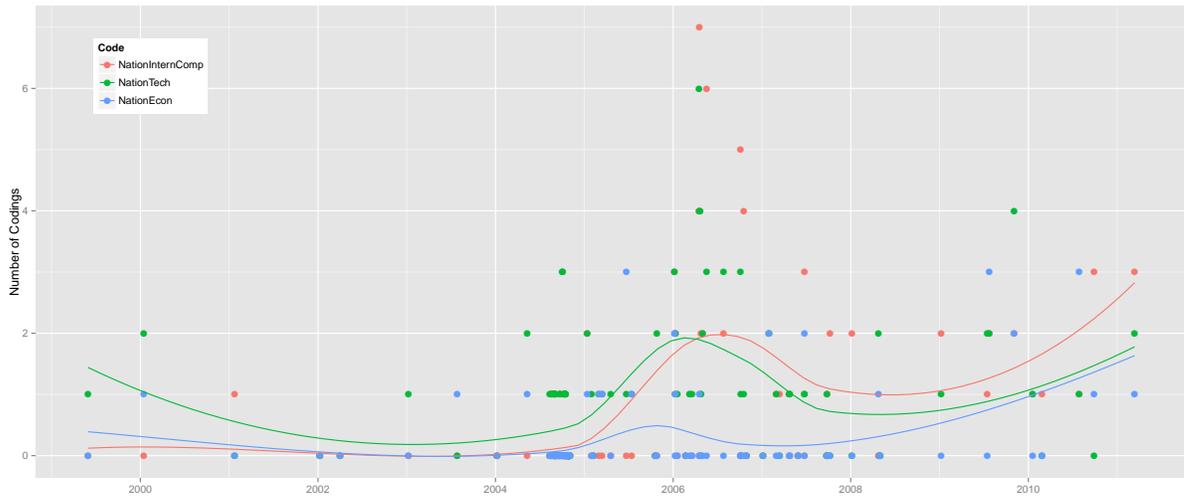


Figure 5.10: Presidential Documents - NationEcon, NationInternComp, NationTech

In addition he made an application to a very important civil right judgement made in 1954 that had wide ranging implications and gave justification of federal intervention on state and local matters.

Similar language was used later (WCPD-2004-05-17-Pg856)

We've got to do something about that. If we want this country to be a hopeful country for every citizen, if we want to make sure every person can realize the American Dream, we've got to close this gap. And what the accountability system – they'll help us close that gap by determining who needs help. (WCPD-2004-05-17-Pg856)

The text mining shows that the terms 'twentyfirst' and 'century' are ranked number 48 and 44 respectively by frequency in the Presidential documents (Table 4.27). The expression "21st century" is almost always used in conjunction with economic competitiveness. The connection plot in Figure 4.6 shows that 'compet' is directly connected to 'pisa' and 'equal.' These refer to the PISA international test and edu-

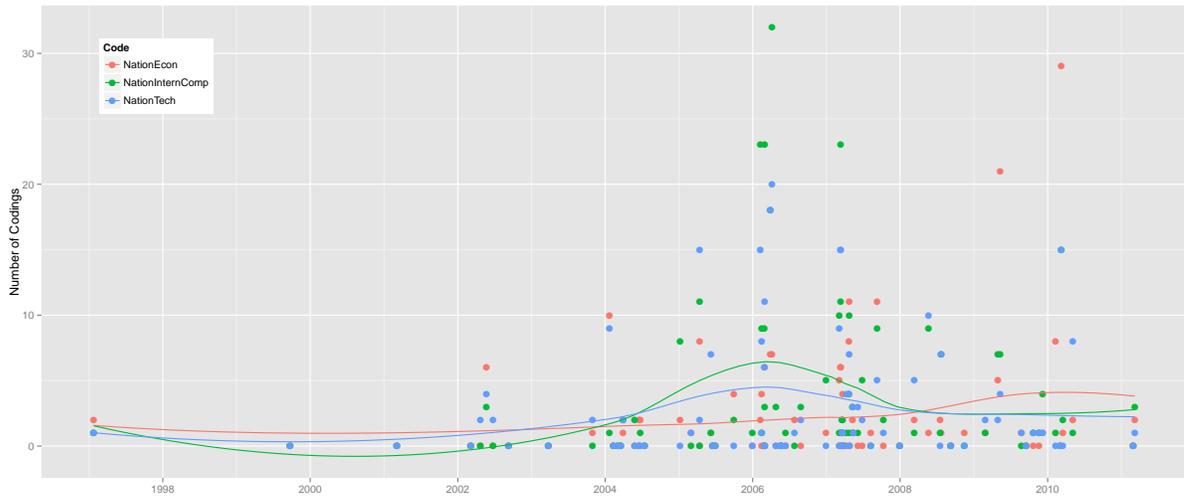


Figure 5.11: Congressional Hearings - NationEcon, NationInternComp, NationTech

educational equality. A similar situation exists in the Presidential documents. In Figure D.1 we see that the cluster ‘compet,’ ‘global,’ and ‘economi’ is connected to ‘inequ,’ the term for educational inequity. The cluster dendrogram of the Presidential documents (Figure 4.3) shows that the terms ‘competit’ and ‘world’ are closely related to ‘skill’ and ‘abl,’ which are references to job skills of the students.

The need to close the AG is plainly expressed as a clear national duty and interest, and accountability is the appropriate *tactic* (Figure 5.12 and Figure 5.13). President Bush made again and again in 2004 a connection between the AGs the the economic health of the U.S. (WCPD-2004-08-23-Pg1644-2, WCPD-2004-09-20-Pg2025, WCPD-2004-09-27-Pg2085, WCPD-2004-10-18-Pg2393, and WCPD-2004-10-18-Pg2399). The next year he stated, “The achievement gap is starting to close, and that’s good for the future of America.” (WCPD-2005-07-18-Pg1158) Similarly, in 2006 the president said that “we have a moral obligation to make sure every child gets a good education. That’s how I – it’s a moral obligation to make sure that we herald success and challenge failure.” (WCPD-2006-01-16-Pg26-2) “The No Child

Left Behind Act is beginning to work. You know why? Because we measure. There was an achievement gap in America; that’s bad for the country.” (WCPD-2006-03-27-Pg498) “There’s an achievement gap in America that’s not good for the future of this country.” (WCPD-2006-10-09-Pg1750) “There’s an achievement gap in America that better be closed if we want America to remain the leader of the world. It is unacceptable to me and it should be unacceptable to people across the country, we have an achievement gap in America.” (WCPD-2007-04-30-Pg515) “And it seems like to me, we’ve got to focus our efforts and energies on solving that problem if we want this country to be a hopeful country with a strong economy.” (WCPD-2007-07-30-Pg1011)

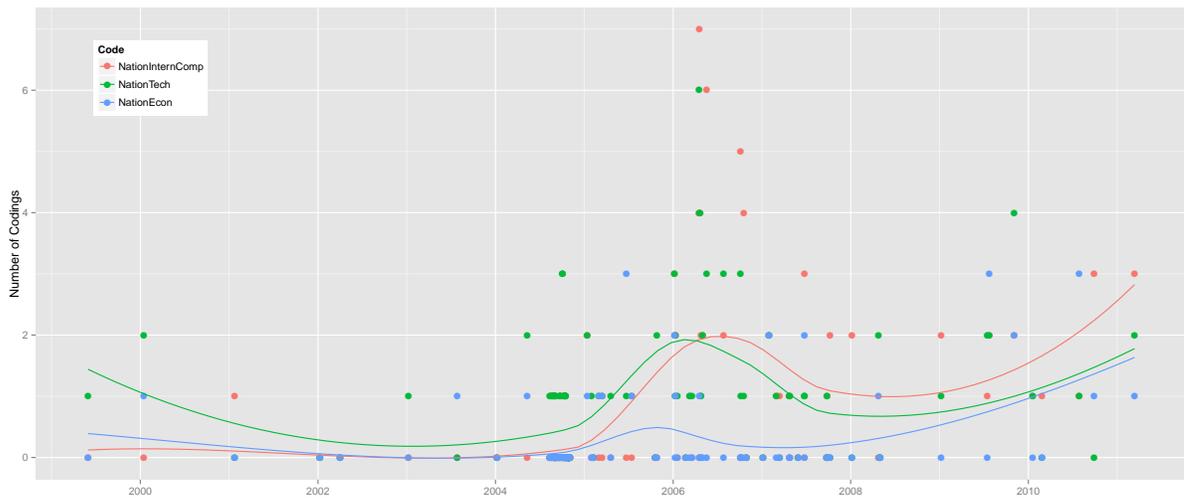


Figure 5.12: Presidential Documents - NationDuty, NationInterest, SchoolAccount

Another *analysis and reflection* is the need to use student assessment (Figures 5.5 and 5.6). President Bush often used the term “measurement” as a tool to improve public education

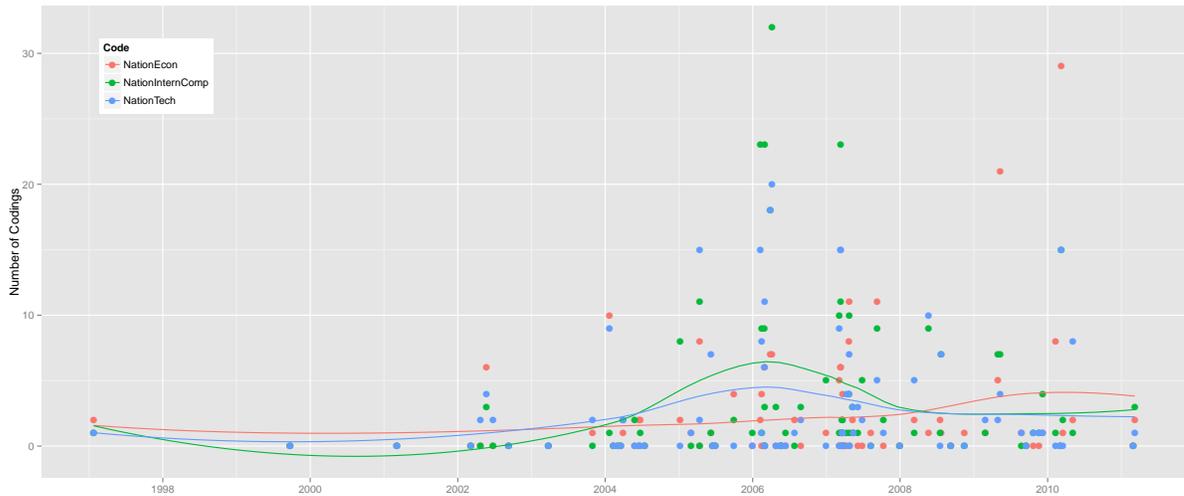


Figure 5.13: Congressional Hearings - NationDuty, NationInterest, SchoolAccount

You cannot solve a problem until you diagnose a problem. And the No Child Left Behind Act is a diagnostic tool for local school districts. (WCPD-2006-01-23-Pg80-2)

... accountability can be used effectively, particularly if it's designed at the local level. In other words, you can use an accountability system to determine whether a curriculum is working, or you can use an accountability system to determine how your school district is doing relative to the school district next door to you. You can use an accountability system to determine whether or not we're closing an achievement gap that needs to be closed if America is going to be a promising place for all people – not just some, but all people. (WCPD-2006-05-01-Pg769-2)

President Bush often repeated the assertion that this is a good tool to use and downplayed or avoided altogether the use of it in “corrective interventions.” In reality that is the only policy relevant use that the assessment *procedure* will have.

The time lag between the taking of the measurement and its analysis as well as the administrative distance between the tested students and the bureaucracy in the local districts hinders greatly its usefulness for anything else than the calculation of the AYP.

It is interesting to observe how after the implementation of the education reform law, which was based on the *analyses and reflections* of employing accountability, measurement, and assessments to close the achievement gap, the law itself created new *analyses and reflections* from its effects and efficacy. The president would not accept any deviation from the principles (*analyses and reflections* again) that the law is based on as we can see in the following statement

But there is no debate about the results: the first time all 50 States and the District of Columbia have accountability plans in place. The data is being disaggregated. That means that we – instead of just lumping all children together and say, “Oh, isn’t everything beautiful,” we actually break each child out to determine whether or not he or she is getting the kind of education parents and society expects. And that’s an important reform. (WCPD-2009-01-12-Pg22-3)

It is worth noting that another *analysis and reflection* that we have not mentioned is the principle that education practices have to be based on **experimental education research** (Figures 5.14 and 5.15). The text of NCLB uses the term **scientifically based research** instead, but what is meant is that it should be based on the statistical analysis of experiments. A couple of observations should be made on this regard (1) the grounding principles of NCLB themselves are not based on scientific research, but on neoliberal ideology, and (2) rarely is education research a purely experimental practice. In most cases it is quasi-experimental because complete

randomization and valid controls are almost impossible to establish in a classroom setting. In addition, replicability and generalization are impossible. Such a state of affairs should be expected in the practice of a social science such as education research. Nonetheless, the president stated for instance

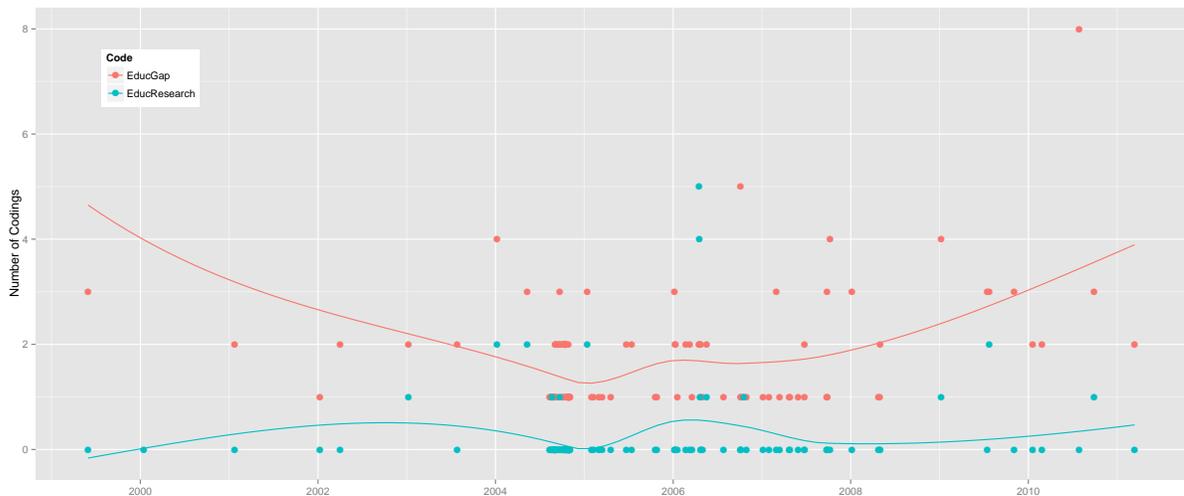


Figure 5.14: Presidential Documents - EducGap, EducResearch

We have quadrupled Federal funding since 2001 for America’s reading programs – by the way, making sure that when we fund programs, that they use scientifically based programs, reading – not programs that sound like they might work but programs which actually do work in teaching the children of America how to read. (WCPD-2004-05-17-Pg856)

His first Secretary of Education, Roderick Paige, made similar statements. For example he said on 2001-03-06 during a Senate appropriations hearing

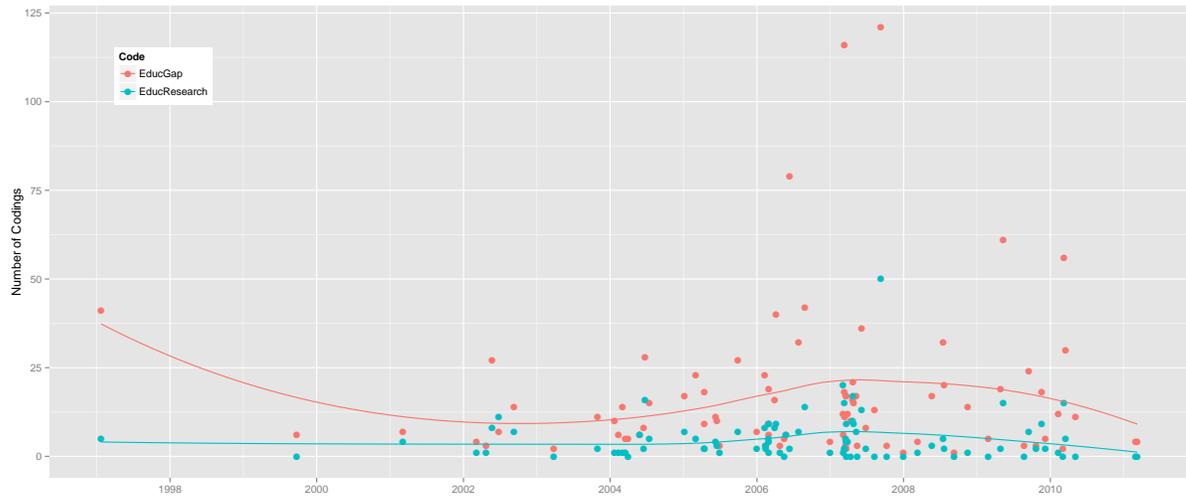


Figure 5.15: Congressional Hearings - EducGap, EducResearch

Even more important, these new dollars are focused on changing the culture of our education system and closing the achievement gap. Our budget reflects the principles put forward in No Child Left Behind: high standards; annual testing of all students in grades 3-8 in reading and math; increased accountability for student performance; a focus on research-based practices – particularly in teaching reading; reduced bureaucracy and greater flexibility for States, school districts, and schools; and expanded options for parents to make choices for their children’s education. (107shrg70756, Table A.7)

Several years later in 2010 during a Senate hearing on the ESEA re-authorization there was an appeal for “evidence-based reforms” by John Castellani, President of the Business Roundtable (111shrg55474, 2010-03-09, Table A.86). As I have remarked, all education reforms (ESEA, NCLB, and RTTT) are not based on scientific evidence, but on political/economic ideology.

The following excerpt by President Bush shows that the *analysis and reflection* of research based educational intervention is closely related to the *analysis and reflection* of measurement

Let me stop you right there. Notice she said “research-based.” In other words, what that means is, people have actually looked at what works and have incorporated what works into the textbooks. That’s what we want. We want curriculum that actually achieves our objectives. Remember the old reading debates – there was – sometimes people had this notion about what might work, and we never knew whether it was or not until we started to measure. (WCPD-2004-09-27-Pg2085)

The following quote is from a statement made by President George Bush at Tuskegee University in Alabama on 2006-04-19. I reproduced a fair portion of it because it ties several of the *analyses and reflections* that we have discussed here

We need to do the same thing for math. We need to make sure that our teachers, our school boards, our principals, our superintendents, our Governors understand what works. You cannot set an objective and achieve that objective unless you have the tactics necessary to do that. And so we’re going to call the experts together. They’ll be presenting a report to Margaret and myself by January 31st of 2007. It will be a really important study, because, again, it will give – it will help States and local school districts have the methodology, the teaching methods necessary to help achieve an important objective.

And then we’re going to implement what’s called a Math Now program that will get those recommendations into the teacher’s hands. But there’s

also another interesting aspect of Math Now, which I think is vital, and that is, when we measure and find a child slipping behind in math in the eighth or ninth grade, that child gets extra help. We do that in the third and fourth grades when it comes to reading; we need to apply that same standard of help for a child as they head into the high school.

If you want to deal with the problem of the United States of America falling behind in math and science, you focus on the problem, and you focus on it with what works and money and extra help. And that's exactly what we intend to do to make sure that we begin to lay that foundation for a competitive tomorrow. (WCPD-2006-04-24-Pg734)

A distressing observation that can be made about this insistence on education research is that it implies that colleges of education are failing in their preparation of teachers. A complete Senate hearing was dedicated to the subject of educational research (107shrg80479, 2002-06-25, Table A.11).

President Obama succeeded President Bush about 8 years after the implementation of NCLB. The thinking about the achievement gaps and their social and economic implications does not seem different between these two presidents as can be read in these following excerpts from some of the speeches by President Obama on the subject

when countries that outeducate us today will outcompete us tomorrow, a world-class education is a prerequisite for success. (DCPD-200900575)

But we also know that today, our education system is falling short. We've talked about it for decades, but we know that we have not made the progress we need to make. The United States, a country that has always led the way in innovation, is now being outpaced in math and science

education. African American, Latino students are lagging behind white classmates in one subject after another, an achievement gap that, by one estimate, costs us hundreds of billions of dollars in wages that will not be earned, jobs that will not be done, and purchases that will not be made. And most employers raise doubts about the qualifications of future employees, rating high school graduates' basic skills as only fair or poor. (DCPD-200900595)

There is a minor *analysis and reflection* concerning the AG, namely its implications for the social fabric of the nation (Figures 5.16 and 5.17). For instance, Michael A. Rebell, Executive Director of the Campaign for Fiscal Equity, Inc., made the following statement

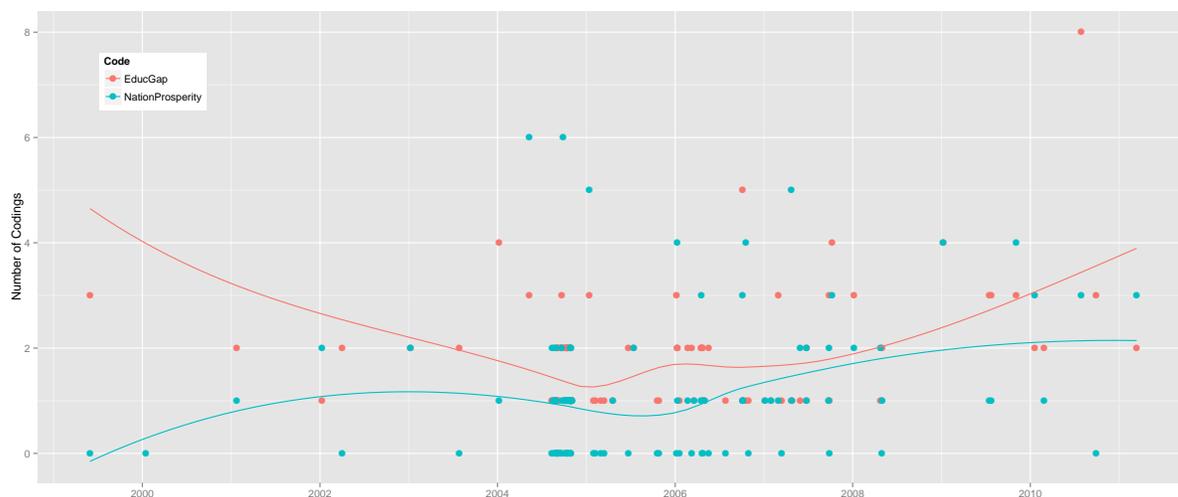


Figure 5.16: Presidential Documents - EducGap, NationProsperity

In the decades ahead, as non-white students increasingly constitute the majority of the populations in States including California, Texas, Mis-

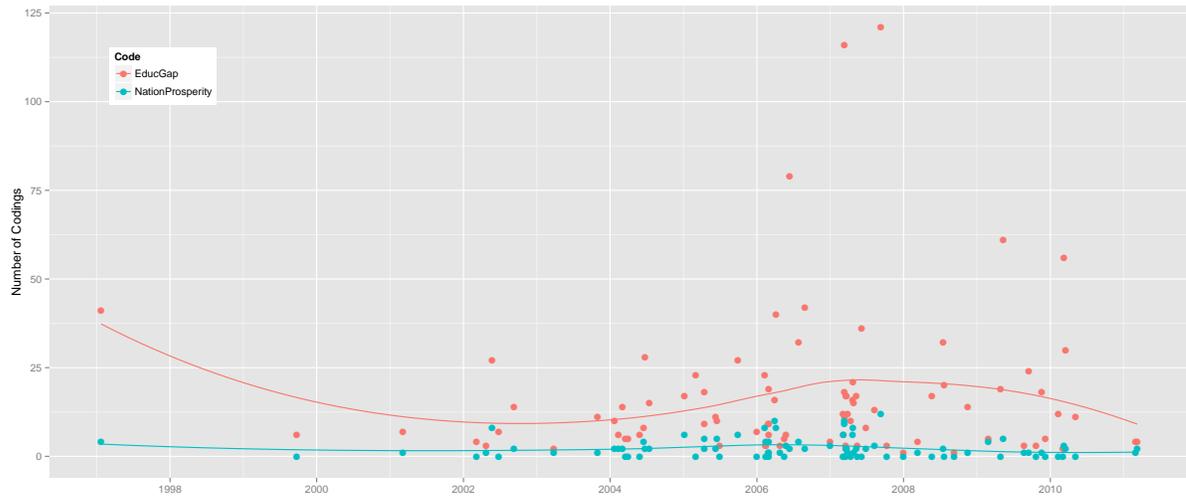


Figure 5.17: Congressional Hearings - EducGap, NationProsperity

Mississippi, Louisiana, and New Mexico, the societal costs of allowing these inequities to remain unchecked and unremedied will become progressively more intolerable and unacceptable to business leaders and to the Nation as a whole. (107shrg79941, 2002-05-23, Table 4.16 and Table A.10)

Michael Rebell has also published on this topic (e.g. Rebell, 2008). Later Lori Sturdevant of the Minneapolis Star Tribune made a similar statement (109hhr27978, Table A.29). However, notice that these statements do not come from politicians. In addition, as time goes on and the competitive standing of the U.S. vis--vis the rest of the world worsened (Subsubsection 5.4.3) there is a shift in emphasis from the income/racial/ethnic AG to the international/global AG as the attention to poverty fades from the public consciousness. See for example the statement by Nick Smith, Chairman of the Research Subcommittee of the House Science Committee, and member of the Republican Party (108hhr90162, 2003-10-30, Table A.13).

The last type of *analysis and reflection* that I would like to examine is the impor-

tance given by politicians and education policy experts to mathematics and science education (Figures 5.18 and 5.19). An obvious sign of this importance is the fact that NCLB contains the following language

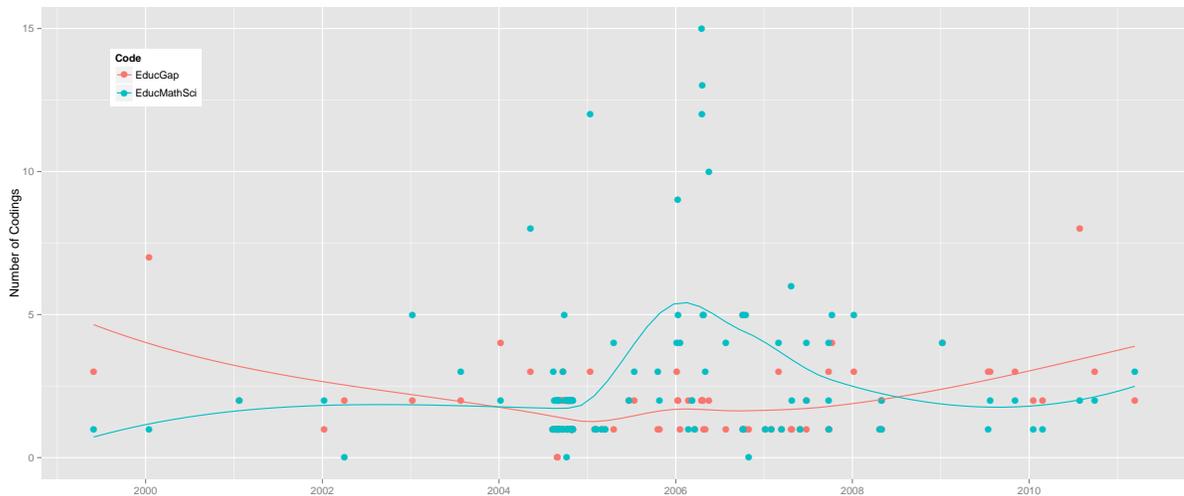


Figure 5.18: Presidential Documents - EducGap, EducMathSci

(G) MEASURABLE OBJECTIVES. Each State shall establish statewide annual measurable objectives, pursuant to subparagraph (C)(v), for meeting the requirements of this paragraph, and which – (i) shall be set separately for the assessments of mathematics and reading or language arts under subsection (a)(3); (Public Law 107-110, Section 1111)

We see here above the policy discourse connection between public education and economic competitiveness. The ‘missing link’ between these two concepts is the teaching of mathematics and science as the following quotes show

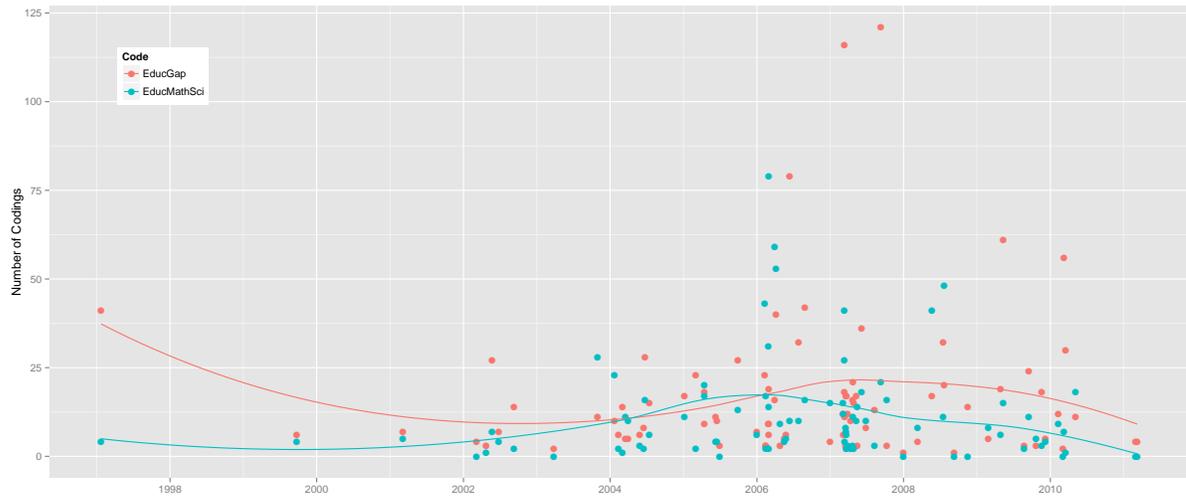


Figure 5.19: Congressional Hearings - EducGap, EducMathSci

The future of the Nation depends on a strong, competitive workforce and a citizenry well equipped to function in an increasingly complex and interdependent world. While the most recent results of the National Assessment of Educational Progress (NAEP) show that student achievement is generally up over the last 30 years, large numbers of U.S. students demonstrate a mastery of only rudimentary mathematics. (108hhr91364, House Committee on Science and Technology, Table A.14)

Truly, the areas of math and science are essential to our youth as well as to the health of our nation. (109hhr20424, Representative Sheila Jackson Lee, Democrat, Table 4.10, Table A.24)

The importance of STEM education for the Nation's future well being has been stressed in many reports over the past few years, most recently by the Augustine report from the National Academies, *Rising Above the*

Gathering Storm. (109hhr26798, Representative Bart Gordon, Democrat, Table 4.10, Table A.28)

In conclusion, Business Roundtable is on the same page as the National Science Board in terms of the depth and urgency of the problem with regard to STEM education in the United States. Like the Board, Business Roundtable believes the highest priority for STEM education policy should be recruiting, training and retaining many more well-qualified STEM teachers. (110hhr38056, Susan Traiman, Director of Education and Workforce Policy at Business Roundtable, Table A.61)

Today's world is one where STEM fields have become directly related to the ability of modern societies to generate wealth and provide for a vibrant economic environment for their citizens. If we want the most vital U.S. to exist tomorrow, we must plant the seeds for that today by investing in the strongest possible STEM education for all our citizens. (111shrg67045, Dr. S. James Gates, University of Maryland, Table A.87)

We need to focus on math and science to make sure our youngsters have the skills necessary to compete in this world. (WCPD-2004-08-23-Pg1644-2, President George Bush, Table 4.3)

The QDA code for the mathematics and science education (*EducMathSci*) ranks number 6 in the Presidential documents (Table 4.18) and the Congressional hearings (Table 4.22). The cross-code tables for both document collections show a large overlap between mathematics and science education and the achievement gaps (Table 4.19 and Table 4.23).

Text mining, likewise, shows the relevance of the teaching of mathematics and science. The term 'math' ranks number 9 (unstemmed) or 11 (stemmed) in the

Presidential documents (Table 4.27). The term ‘science’ ranks 37 and 45 respectively. In the Congressional hearings the term ‘math’ ranks number 7 (unstemmed) and 8 (stemmed) while ‘science’ ranks 10 and 17 respectively (Table 4.28). Unsurprisingly, the term most frequently associated to ‘math’ is ‘science’ (Tables D.11 and D.25).

The correlation graph of most frequent terms in the Congressional hearings shows that ‘math’ is connected to ‘science’, which in turn is connected to ‘nation’ (Figure 4.5).

As we have mentioned at the beginning of this subsection, there is a close link between an *analysis and reflection* and a *tactic*, in this case the implementation of mathematics teaching with the related tactics of mathematics and science teacher retention, professional education, formation and recruitment. Those concepts are discussed in the next subsection (5.2.4).

5.2.4 *Calculations and Tactics*

I will make an almost literal interpretation of the definition item “calculations” of the first dimension of Foucault’s governmentality and refer it to mathematical calculations, or more accurately, algorithms that use descriptive statistics and are based on data collection. A prime example of this type of calculation is the determination of the Adequate Yearly Progress (AYP) as specified in NCLB. An earlier example is the calculations for allocation of the Title I funds in ESEA.

One aspect of *calculations and tactics* is the level of governmental control of education with respect to the achievement gap. That subject is extensively discussed in Subsubsection 5.4.2 and I will thus only make a brief mention here.

I have previously mentioned accountability, at the school, school district, and state level vis--vis the federal government as a *procedure* (Subsubsection 5.2.2) and as an *analysis and reflection* (Subsubsection 5.2.3). The application of this con-

cept requires extensive *calculations* (the standardized test scores, AYP) and several *tactics* such as the assessment of students (Figures 5.5 and 5.6), the assessment and professional development of teachers (Figures 5.20 and 5.21), the notification of parents, the reporting to the U.S. Department of Education and so on. Regarding *calculations*, there has been a lot of discussion on how to calculate AYP. Also in Subsubsection 5.2.2 is a description of the discussion on but a small aspect of the AYP, the so-called N-size. The fact that a minor aspect of NCLB could engender such a bitter discussion is a sign that *calculations* occupy an important place in the *administrative state*. Another albeit lesser statistical controversy concerns the use of confidence intervals in AYP calculations, a relatively sophisticated statistical concept (see 110hhr37638). Even more mathematically complex are the discussions on growth models, value added models and their comparisons (see 109hhr28839).

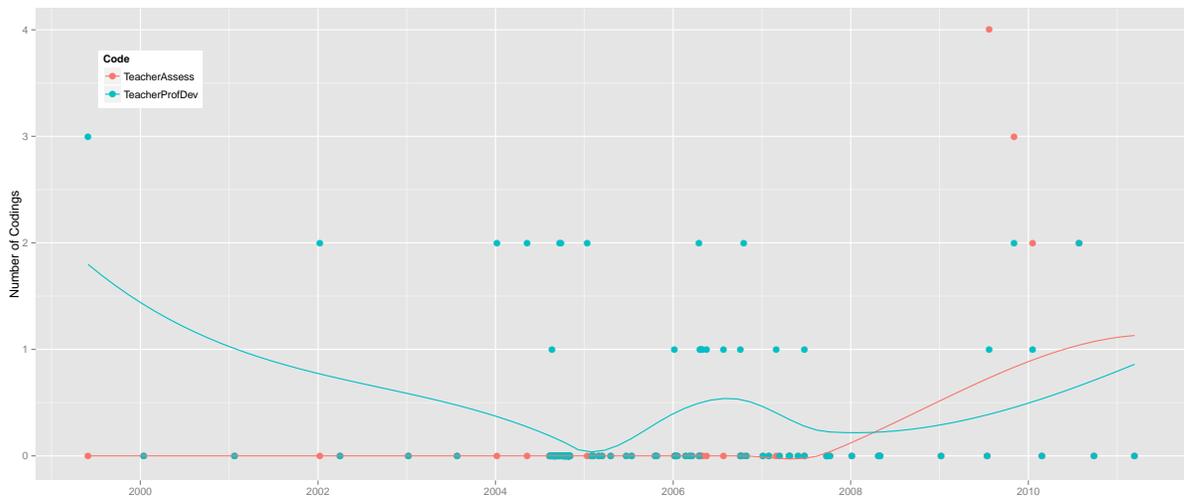


Figure 5.20: Presidential Documents - TeacherAssess, TeacherProfDev

Here I would like to discuss other *tactics* with respect to the AGs such as the

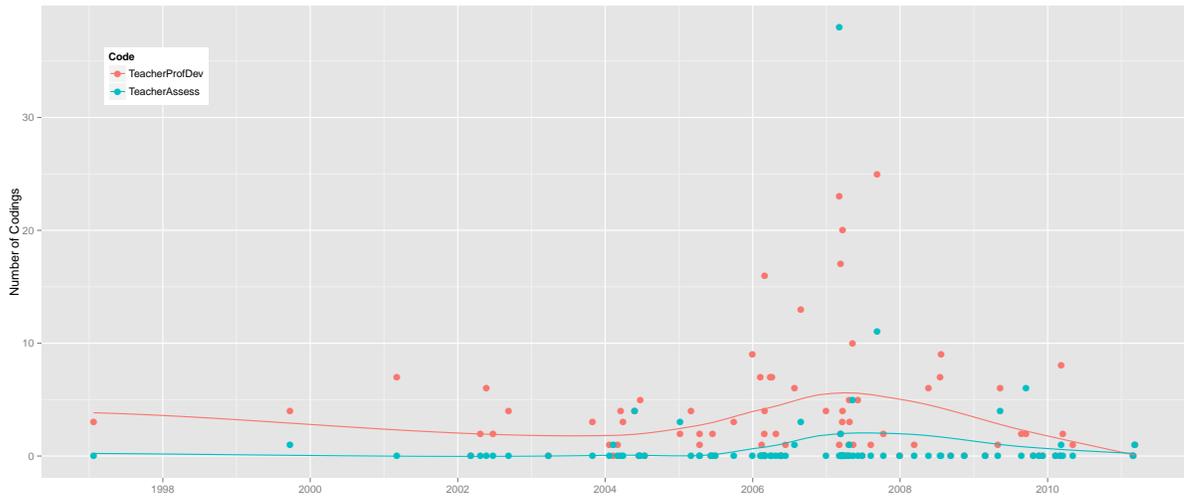


Figure 5.21: Congressional Hearings - TeacherAssess, TeacherProfDev

standardization of the curricula within states first and between states later, parental involvement, business input, charter schools, school choice, incentives for teachers and their professional development (Figures 5.22 and 5.23).

As is explained in more detail in Subsubsection 5.4.2 the trend present in the *administrative state* is to transfer more and more functions and control from the periphery to the center, a phenomenon called “federalization.” Curriculum standards follow this trend. We have at the beginning the mentioning of the formation of statewide standards in

The “Improving America’s Schools Act of 1994,” which reauthorized the ESEA 5 years ago, and the “Goals 2000: Educate America Act” gave States and school districts a framework for integrating Federal resources in support of State and local reforms based on high academic standards. In response, 48 States, the District of Columbia, and Puerto Rico have adopted State-level standards. (WCPD-1999-05-31-Pg964, 1999-05-31,

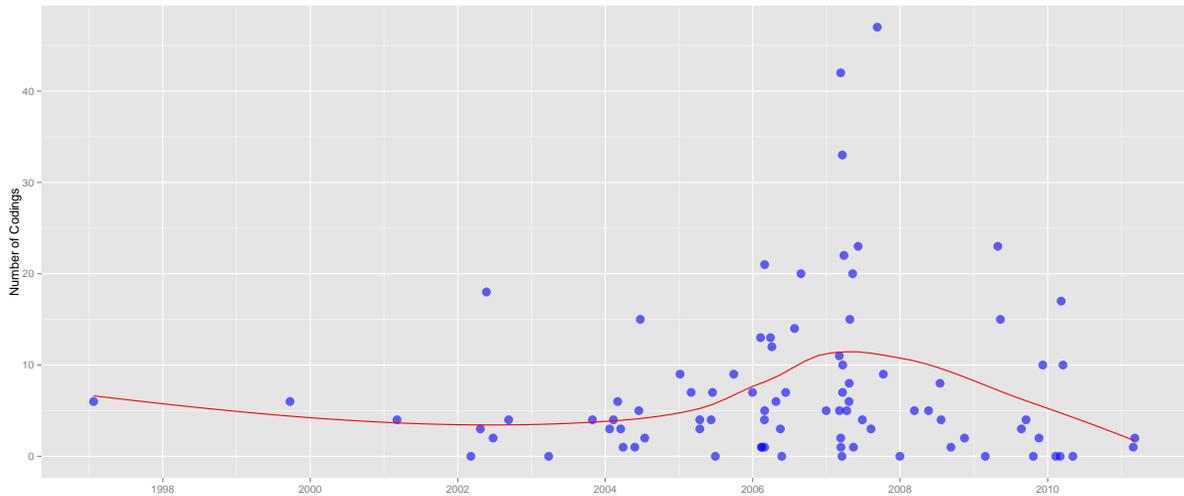


Figure 5.23: Congressional Hearings - EducStandard

their goals not only based on students that are meeting standards, but also on growth toward these standards, it becomes even more important to have meaningful, high-level standards. As Congress considers allowing states to incorporate growth into accountability, it is important to revisit the hands-off approach that has ignored the rigor of state standards. (109hhr28839, 2006-07-27, Table A.32)

Note the critique of the ‘hands-off approach’ as a call for federal intervention and control, i.e. federalization. The first concrete call for national standards came the following year from a non-governmental organization. Hon. Robert Wise, President of the Alliance for Excellent Education and former governor said in a statement on 2007-04-23

NCLB should establish a process for developing shared education standards to ensure that all students are held to the same high expectations aligned with the requirements of postsecondary education and the

workforce. The federal government should also offer states high-quality performance assessments to regularly measure student progress towards those standards and fulfill the testing requirements of NCLB. This action would remove a significant financial burden from states and increase the quality of assessments. In addition, the federal government should provide states with incentives and supports for adopting such standards and aligning them with their key systems, such as their curricula, graduation requirements, and professional development. (110hhr34631, Table A.55)

It is interesting to notice that an appeal was made to economic considerations, an *analysis and reflection*. This excerpt was in a section of his statement titled “Voluntary National Standards.” That is, the U.S. government would provide the standards, but would have been up to the state to accept them or not. However, in actuality national standards would come about in a different fashion. See the following excerpt from a statement by Chester Finn of the Hoover Institution at Stanford University

The surest way to end this such questionable practices – and keep Washington from playing a cat-and-mouse game with recalcitrant states – is to move to a system of national standards and tests, while simultaneously freeing states, districts, and schools to achieve those standards as they see fit.

To be very clear, federal officials do not themselves need to, and in my view should not, create such national standards and tests themselves. But the federal government could require or encourage their use. (110hhr35664, Table A.58)

Indeed the federal government would not create a national standard, but rather the states themselves did so in 2009 as is shown in Subsubsection 5.4.2.

Text mining confirms that importance of the *tactic* of national standards. The term ‘standard’ (stemmed) ranks number 6 in the Presidential documents collection (Table 4.27) and number 25 in the Congressional hearings (Table 4.28). There is a close association between the terms ‘standard’ and ‘common’ (0.23) in the Presidential documents (Table 5.1).

Table 5.1: Presidential Documents - Terms Associated with “standard”

standard	set	voluntarili	impos	common	clarifi
1.00	0.32	0.29	0.24	0.23	0.21
meet	adopt	fell	part	penal	low
0.20	0.18	0.18	0.18	0.18	0.17
lower	rais	challeng	dilut	expect	soft
0.17	0.17	0.16	0.16	0.16	0.16
bigotri	content				
0.15	0.15				

Now I would like to examine briefly the *tactic* of “teacher appreciation,” that is the incentives, monetary or promotion or less tangible, that the government and school administration give to particular teachers to encourage certain types of behavior, from just applying for teaching positions to increasing student achievement (Figures 5.24 and 5.25). The reverse of this *tactic* is certain punitive practices that could eventually result in the dismissal of teachers. The pivot between these two *tactics* has become the *tactic* of “teacher assessment.” This last *tactic* is but an extension, involving slightly more complicated *calculations*, of the *tactic* “student assessment” that was discussed in the previous subsubsection (5.2.2).

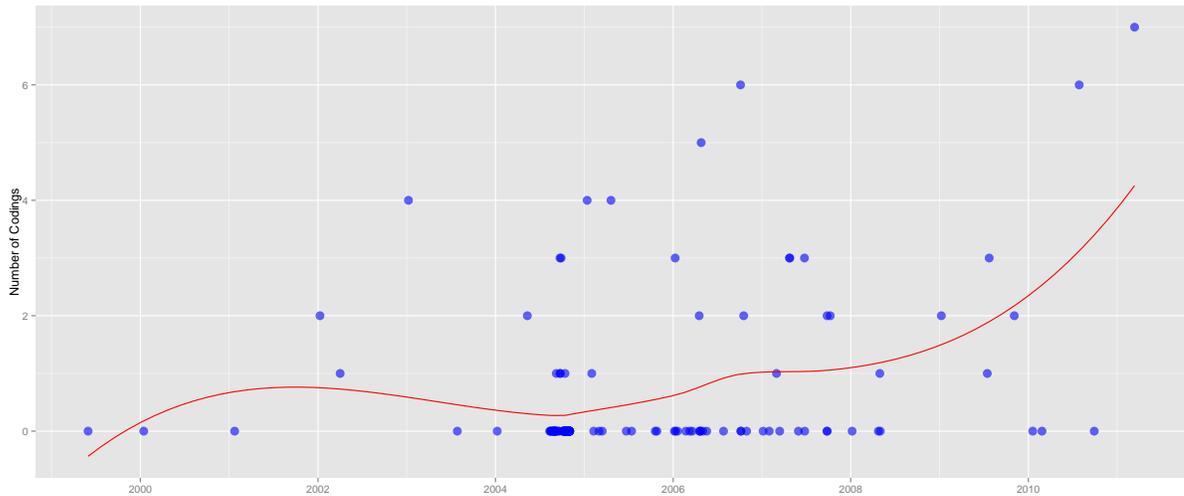


Figure 5.24: Presidential Documents - TeacherApprec

The tendency has been for these three *tactics* to operate within the ideological framework of neoliberalism as can be seen in the following excerpt of a statement by President George W. Bush

We'll do more to improve education and prepare our children for the future. Listen, we've got a changing job force. Most new jobs are filled by people with at least 2 years of college, yet one in four of our students gets there. That's why, at our high schools, we'll fund early intervention programs to help at-risk students. We'll emphasize math and science so our kids can fill the jobs of the 21st century. We'll reward teachers who gets results for their students. We'll give our best teachers incentives to teach in the neediest schools. Over time, we'll require a rigorous exam before graduation. By raising performance in our high schools and expanding Pell grants for low and middle-income Americans, we will help more of our citizens start their career with a college diploma. (WCPD-

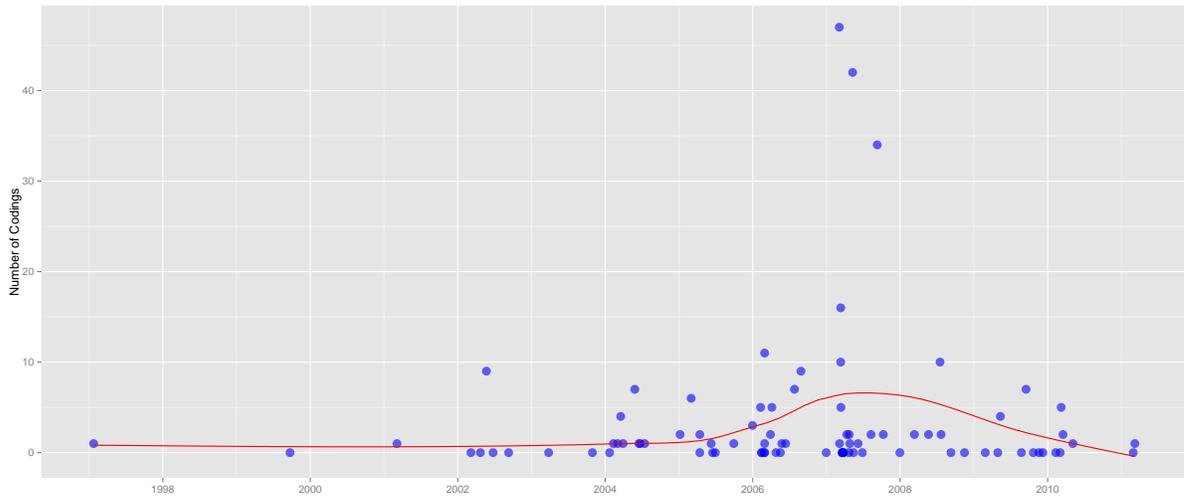


Figure 5.25: Congressional Hearings - TeacherApprec

2004-09-27-Pg2097, 2004-09-22, Table 4.3)

It is interesting to observe that during the initial stage of a *procedure* that impinges on the autonomy of an agent in society only positive aspects of the *procedure* are mentioned, see the above “we’ll reward teachers . . .” Once the practice is part of the “system of knowledge,” then its negative aspects are mentioned and applied. See also WCPD-2005-01-17-Pg45. Marlene S. Shaul, Director, Education, Workforce, and Income Security Issues, U.S. Government Accountability Office, stated “States used them [i.e. growth models] for purposes such as rewarding effective teachers and designing intervention plans for struggling schools.” (109hhrg28839, 2006-07-27, Table A.32) Again the affirmation is made that assessments are used only to reward teachers. However, the following year (2007-05-11) the final stage of this tactic triplet is shown in a statement by John D. Podesta, President and Chief Executive Officer, Center for American Progress, a progressive policy organization⁵⁶

Compensation systems that recognize the value of our teacher workforce

coupled with career advancement systems that more effectively reward good performance, draw effective educators to high-need schools, and respond to poor performance, including fairly and effectively removing ineffective educators, will make larger investments in teacher and principal salaries more politically viable and maximize the returns on such investments. (110hhr34990, Table A.32)

Note that this process is ‘fair and efficient.’ Of course these ‘compensation systems’ do not exist and no guarantee is given that such ‘fair and efficient’ systems could be devised. President Barack Obama will three years later give a very similar statement

But let me be clear: Success should be judged by results, and data is a powerful tool to determine results. We can’t ignore facts; we can’t ignore data. That’s why any State that makes it unlawful to link student progress to teacher evaluations will have to change its ways if it wants to compete for a grant. That’s why the Race to the Top grants will go to States that use data effectively to reward effective teachers, to support teachers who are struggling, and when necessary, to replace teachers who aren’t up to the job. (DCPD-200900595, 2009-07-24, Table 4.1)

This statement is a quintessential neo-liberal discourse (see previous Subsection 3.5 pp. 82–83 and below Subsubsection 5.4.8), which would seem out of place in a speech by a Democratic president. Neo-liberal principles favor the establishment of free market mechanisms in all aspect of civil society, thus also in the public school system. A “just society” is one in which all citizens can participate and operate in a free, efficient, and transparent market of products and services. This idea is opposed by those who believe that a just society can only be obtained by the establishment,

often through governmental intervention, of social support institutions that transcend and operate outside of the market forces, these forces being by themselves, if not the causes, the perpetrators of social inequity. The fact that a Democratic president would make a statement where the operation of the market forces in the public school system is so strongly demanded is surely it is a sign of how pervasive this type of ideology is in the U.S. political discourse.

However, reality has a complexity that reform legislation cannot encompass. School reform legislation that establishes rewarding and penalizing public school teachers is problematic on several points. Already two years before this statement by President Obama, Linda Darling-Hammond of Stanford University was invited at a Senate hearing on the NCLB re-authorization where she expounded on the efficacy of this type of education reform. She presented the case of Susan Saunders, an experienced teacher, who

When asked how she would feel about working in this new system of test-based merit pay, Saunders said the introduction of the system would force a teacher like herself either to leave the system or to stop taking on the special education students and helping the other teachers in her building (since one teacher's greater success would come at the expense of another teacher's rating). (110shrg34052, 2007-03-06, Table A.71)

In other words, prescriptive rules and regulations are generally destined to fail because societies are too complex. There are often what Linda Darling-Hammond calls "unintended negative consequences" (see 110hhr34015, 110hhr34990, 110hhr35664, and 110hhr37638), even though in principle there are ways of establishing a fair and equitable incentive and corrective systems.

Another problematic aspect of legislation that tries to establish a system of

teacher rewards and penalizations is that it is an unnatural juxtaposition of a Foucaultian “apparatus of security” within a “régime of discipline.” I will write on this subject more later (Subsubsections 5.2.7 and 5.2.8, Subsection 5.3, and Subsubsections 5.4.1 and 5.4.8).

5.2.5 Population

Michel Foucault’s understanding of population and governmentality is complex and we cannot explore all of its aspects here in detail (Foucault, 2009, Chapters 3 and 4). However, for our purposes here we need to state that “population” is the target of all the previously discussed *procedures, analyses and reflections, and calculations and tactics*. The following quotes from his third lecture on “Security, Territory, Population” shed some light in his understanding of the term⁵⁷

I think the population no longer appears as a collection of subjects of right, as a collection of subject wills who must obey the sovereign’s will through the intermediary of regulations, laws, edicts, and so on. It will be considered as a **set of processes** to be **managed** at the level and on the basis of what is **natural** in these processes. (p. 70)

What is it that means that the population will henceforth be seen . . . as a sort of technical-political object of management and government?

The population is a datum that depends on a **series of variables**, which means that it cannot be transparent to the sovereign’s action and that the relation between the population and sovereign cannot simply be one of obedience or the refusal of obedience, of obedience or revolt.

. . . the naturalness identified in the fact of population is constantly accessible to **agents and techniques of transformation**, on condition

that these agents and techniques are at once **enlightened, reflected, analytical, calculated, and calculating**.

... the **naturalness of desire** ... marks the population and becomes accessible to **governmental technique**

The population is not, then, a collection of juridical subjects in an individual or collective relationship with a sovereign will. It is a set of elements in which we can note constants and regularities even in accidents, in which we can identify the **universal of desire** regularly producing benefit of all, and with regard to which we can identify a number of **modifiable variables** on which it depends.

... with the population we have something completely different from a collection of subjects of right differentiated by their status, localization, goods, responsibilities, and offices: we have a set of elements that, on one side, are immersed within the **general régime of living beings** and that, on another side, offer a surface on which authoritarian, but **reflected and calculated transformations** can get a hold.

The public ... is the population seen under the aspect of its opinions, ways of doing things, forms of behaviour, customs, fears, prejudices, and requirements; it is what one gets a hold on through **education**, campaigns, and convictions.

From the above quotes that shine light on the Foucaultian notion of *population* it should be noted that it does not directly correspond to the student population. The target of ESEA were poor families and its provisions had the function of **modifying variables**, namely school quality and job training, which would lift them out of poverty. It was assumed that desire of the target population to leave poverty

would be the driving force of their positive behavior. However, school policy is complicated by the fact that there is no direct and close temporal relationship between the intervention, the supposedly improved school environment, and the benefit to the population, i.e. increased earning potential, cultural wealth, and social skills. Thus, the **universal of desire** of the target population, the poor families in this case, was only indirectly and distantly engaged. The direct target of ESEA, the students themselves were not considered part of the population itself, they had no **agency**. Even worse, the **universal of desire** of many students after elementary school is often the opposite of what all the education laws intend to obtain, academic achievement as they are not able to appreciate the future rewards of their efforts. A stark observation to this effect was given by Adams (2005, p. 17) who wrote

Many African Americans and Latino/as simply do not buy into modern education's saccharine view of how to make it in our society. Their folk vision suggests to them that there are viable options other than academics at this stage in their lives which will enable them to make it in American society.

In my understanding of Foucault's governmentality of the population, the administrative state works effectively when government interventions can work **with** the natural desires of the populations and not against them. Thus, the ideal setting of governmentality is the democratic society where the desire of most of the population is generally in agreement with the spirit of its laws and regulations. As an example let us compare a professional army (e.g. U.S.) to a conscripted army (e.g. Russia). One will notice a large difference in disciplinary issues as well as in efficacy. The average patient in a general hospital does not need the type of surveillance that a patient in a psychiatric unit does. There are no disciplinary problems in a library,

few in a summer camp, but many in a public school, even a suburban one.

These observations would explain why in the reform of ESEA, that is NCLB, mention is made of parental involvement (Figures C.17 and C.50). Even though NCLB considers student little more than raw material, the law attributes a large degree of **agency** to the parents of the students. See for example the following quotes by President Bush

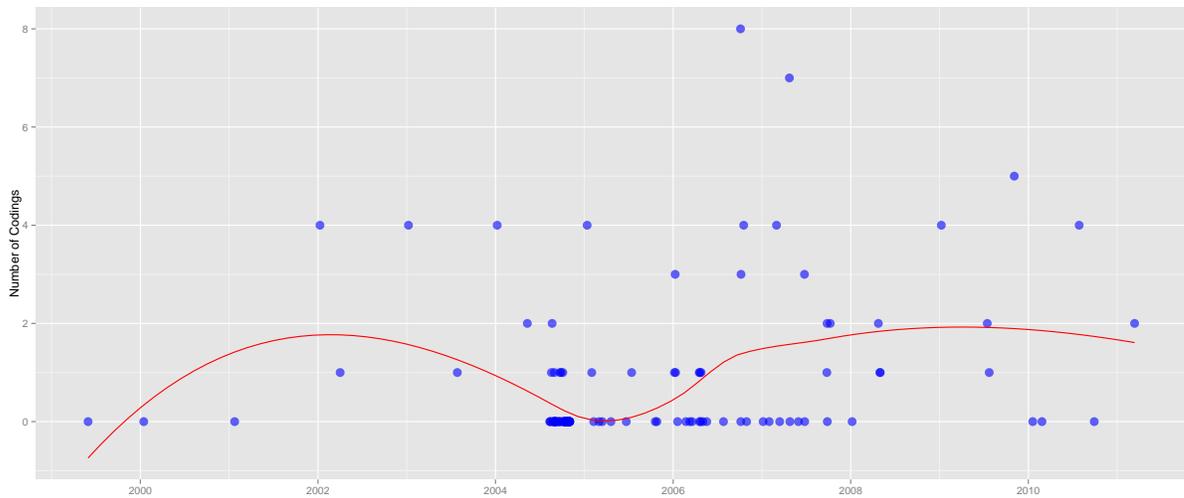


Figure 5.26: Presidential Documents - ParentInvolve

A child who cannot identify the letters of the alphabet in his or her first year of school runs a real risk of staying behind in school throughout her or his career. We cannot accept this in America. To close the achievement gap in our schools, we must close the early childhood education gap in our society. Today I pledge my administration's support in working with parents and families, Head Start and childcare centers, and our States to achieve this goal. (WCPD-2002-04-08-Pg551-2, 2002-04-02, Table A.3)

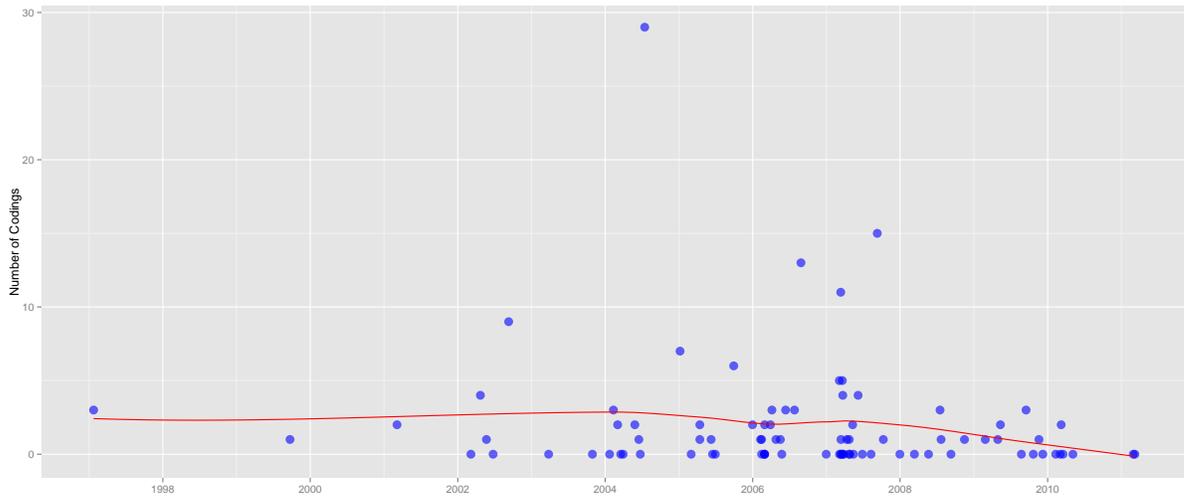


Figure 5.27: Congressional Hearings - ParentInvolve

The only way to be sure of whether or not every child is learning is to test regularly and to show everybody, especially the parents, the results of the tests. (WCPD-2003-01-13-Pg39, 2003-01-08)

And so the No Child Left Behind Act sets high expectations and high standards. It believes in local control of schools. It believes in empowering parents. (WCPD-2004-08-23-Pg1644-2, 2004-08-18)

There is an achievement gap in America that is inexcusable, and it's beginning to close. And I think one of the main reasons it's closing is because we are now measuring. We're posting scores on the Internet for people to see, and we're saying to school districts, "If you've got a problem, correct it early, before it is too late. And if you can't figure out how to correct it, give parents a different option than keeping their child in a school which will not change and will not teach." (WCPD-2006-01-09-Pg12, 2006-01-06)

Measuring results empowers parents with valuable information about schools, so they can push for change if it's needed. Measuring results means schools are working to close the achievement gap, instead of looking the other way when a student is struggling or falling behind. (WCPD-2007-10-15-Pg1318-2, 2007-10-09)

Charter schools are educational alternatives that empower families with additional choices for their children. By providing flexibility to educators while insisting on results, charter schools are helping foster a culture of educational innovation, accountability, and excellence. Charter schools also encourage parental involvement and help contribute to the national effort to close the achievement gap. (WCPD-2008-05-05-Pg650-2, 2008-05-02)

Other participants in the political discourse expressed very similar opinion. See for example

NCLB creates an authority for funding of Parental Assistance Information Centers and Local Family Information Centers (LFICs) to provide training, information, and support to parents, and to individuals and organizations that work with parents, to implement parental involvement strategies that lead to improvements in student academic achievement. The information and training provided by these centers is critical to prepare parents to hold schools accountable for closing the achievement gap. (James H. Wendorf, Executive Director, National Center for Learning Disabilities, 108hhr92309, 2004-03-03, Table A.16)

Parents have information not only on their own child's achievement, but on how that achievement compares to his/her subgroup within the school,

the school as a whole, the school district and the state. Parents can shop for schools, if they are able, with better “consumer information.” They can decide whether to try to take advantage of NCLB’s transfer provisions if their child is in a school “in need of improvement.” And parents, acting together or through organizations like the NAACP in Connecticut, can organize and pressure their state and local officials to do a better job in improving their schools and ensuring the high-quality teachers and resources they need to succeed. (John C. Brittain, Chief Counsel and Senior Deputy Director, Lawyers’ Committee for Civil Rights Under Law, 109hhrhg28431, 2006-06-13, Table A.31)

And when schools do not improve, students and their parents have new options, including transferring to a better-performing school or obtaining high-quality supplemental educational services. (Margaret Spellings, US Secretary of Education, 109shrg20732, Table A.34)

We can see in the above quotes how several *tactics*, *calculations*, and *reflections* **supposedly** work together in the amelioration of a social problem, the AGs. Measurement gives information to parents, the **agents** in an **educational marketplace**, who will act on their natural desire, the well-being of their children, to raise the quality of the schools by choosing a better school, then schools would compete for students by increasing their quality and thus eliminate the achievement gap. According to classical economic theory, competition in a free and transparent marketplace increases quality, lowers prices, and maximizes production efficiency.

Maybe private schools operate in a free market system, but certainly public schools do not, regardless whether NCLB pretends it to be so. Your place of residence determines the public school you go to and there usually are penalties for violating

this rule. Even in the rare cases that parents could choose between different public schools, it may not be possible to change due to transportation issues. Because of the usually poor status of public transportation in the U.S., if the school bus system does not provide transportation, the school may be unreachable. Such opinion and sentiments are expressed in the following excerpts.

As Wisconsin State Representative Polly Williams observed: “School choice empowers low-income families . . . Parents with money can use it as a leverage in decision making. Low-income families are stuck in a non-responsive system.” State and Local GI Bills for Children will give middle- and low-income families the power to vote with their feet if they are not satisfied with the educational product of the school. (Hoover Institution on War, Revolution and Peace, 108shrg94993, 2004-07-15, Table A.23)

Decades of school choice research has documented two very clear, consistent findings that pertain to our discussion today about Pell Grants for Kids: First, school choice is associated with high levels of parent involvement, commitment and empowerment. Second, school choice policies must address questions of equity that often emerge because of differential access to information and transportation between advantaged and disadvantaged families. (Ellen B. Goldring, Vanderbilt University, 108shrg94993)

The typical operation of school districts exacerbates the problems facing high schools, since the procedures of school districts are built around assumptions of unequal outcomes and large size. School resources are distributed in ways that provide the best teachers and more congenial

learning settings to the students who are the most able. Effective political pressure from affluent parents tends to reinforce these dysfunctional practices. (Andres Henriquez, Carnegie Corporation, 109hhr21648, 2005-06-09, Table A.25)

And, yes, parents do have more options when it comes to giving their child the best possible education, but there still aren't enough options available or utilized. (Representative Howard McKeon, Republican, 110jhr33757, 2007-03-13, Table A.68)

Notice that Representative McKeon is a conservative Republican and that by 2007 it had become evident that NCLB would not attain its goals.

Even though parental involvement is not one of the principal *tactics*, it is a subject that is often mentioned in the policy documents. The term 'parent' (stemmed) is ranked number 22 in the Presidential documents (Table 4.27) and its QDA code is ranked number 18 in the same collection. However, its code is only ranked number 27 in the Congressional hearings and it does appear among the 50 most common terms there. President Bush, unlike other speakers, almost always mentioned this concept when speaking about the importance and virtues of NCLB. In the cluster dendrogram of the Presidential documents the term 'parent' is closely associated with the coupled terms 'accountability' and 'system' (Figure 4.3).

Another observation that can be made regarding ESEA is that interventions on school faculty and administration were negligible. This would change with its successor, NCLB, and even more so later with RTTT.⁵⁸ We will discuss this in more detail in Subsubsection 5.2.7. However here I would like to say that NCLB and RTTT include *processes, agents and techniques of transformation* that by means of *calculations* have the function of modifying the fashion by which school faculty and

management operate. There are *supportive* as well as *punitive* measures in the law that intend to operate on the **naturalness of desire** of the teachers and principals to retain their employment, keep or even increase their income, and avoid shame.

As we have previously seen in Subsubsection 5.2.2, the first federal education law, the Elementary and Secondary Education Act of 1965, was passed with the intent to solve the income-based achievement gap (Figures 5.7 and 5.8). For instance President Clinton said in 1999

The bill [i.e. his ESEA re-authorization proposal] also would continue to target Federal elementary and secondary education resources on those students furthest from meeting State and local standards, with a particular emphasis on narrowing the gap in achievement between disadvantaged students and their more affluent peers. (WCPD-1999-05-31-Pg964, Table 4.2)

Later political discourse would prefer more racial and then even later ethnic terminology with regards to the AGs. Sometimes the more generic or inclusive terms “minorities” or “of color” would be used. President Obama said at the beginning of his term at an NAACP⁵⁹ meeting “There are overcrowded classrooms and crumbling schools and corridors of shame in America filled with poor children, not just black children, brown and white children as well.” (DCPD-200900575, 2009-07-16, Table 4.1) I suppose that “brown” is a generic term for non Black minority. After all there was no need at a NAACP meeting to be more specific. Likewise the more vague term SES (socio-economic status) is often used instead of poverty.

How could the *administrative state* solve or at least mitigate the poverty based AG? Which *procedures* should be implemented? The obvious solution would be the elimination of poverty itself, the root cause of the problem and certainly a problem

in and by itself. The War on Poverty by President Lyndon B. Johnson (1964) aimed to do just so. The text of the President Johnson's address to Congress is reproduced in <http://www.fordham.edu/halsall/mod/1964johnson-warpoverty.html> Poverty can be ameliorated using several methods and probably the best form of action would be "all of the above." However, historically the U.S. government has rarely used the direct approach that seems to be very effective, namely the Conditional Cash Transfers, where money is given directly to families with a contractual obligation to engage in certain progressive behaviors, generally school attendance of **all** children and health checks. Instead as discussed in Subsubsection 5.2.2 the federal treasury would fund entities, new or already existing ones such as schools, to provide extra services (Title I of ESEA).

As expected, often the political discourse contains praises for these governmental interventions such as in the following statement by Richard W. Riley, Secretary of Education under President Clinton

Title I Grants to Local Educational Agencies (LEAs) is the key Federal vehicle for closing the rich-poor gap in reading and math achievement. The recent National Assessment of Title I concluded that trends in the performance of the Nation's highest-poverty schools, as well as the progress of the lowest-achieving students, shows positive gains in reading and math since the 1994 reauthorization of Title I. The Administration has requested \$8 billion for Title I Grants to LEAs in fiscal year 2000 and would provide additional funds to the highest-poverty schools by allocating a significant proportion of the request through the Targeted Grants formula. (106hrg59654, 1999-09-23, Table A.6)

Later in the same statement are references to accountability, state academic standards, and measurement of the performance of students, teachers, schools and school districts. Secretary Riley mentions the “moral and fiscal dimension to being more accountable” and “strong corrective action.” All these concepts will reappear in NCLB and this law had very strong bipartisan support.

In September 2002 the Senate Committee on Health, Education, Labor, and Pensions organized a hearing titled “Successful Implementation of Title I: State and Local Perspectives” (107shrg81758, Table A.12). Among the witnesses was William J. Moloney, Colorado Commissioner of Education, who quoted from a statement by the Colorado Coalition to Close the Achievement Gap

If our American democracy is to endure and prosper, it cannot be as a society that tolerates two systems of education – one of high expectation for the children of the fortunate and one of lesser standards for children of poverty and color

Perhaps for some there is no crisis in education, but for our most vulnerable children, it is more than a crisis: It is a State of national emergency.

We commit to this challenge, not just because it is the right thing to do, but because it is nothing less than a moral imperative.

5.2.6 *Form of Knowledge*

According to the first of the three definitions of *governmentality*, the major form of knowledge is “political economy” (Foucault, 2009, p. 108). Foucault discussed this concept in several of his lectures in 1978. I will try to give my understanding of this subject.

First of all, population is the ‘mediator’ of the wealth of a nation. The wealth of a nation is not just simply the sum of the value of the ore in its mines, of the

crops in its fields, and the cattle on its meadows, of the factories, and of the precious metals in its bank vaults. The population is more than a consumer of wealth, it also **produces wealth**.

Secondly, the focus of government is not the mere exercise of authority, the imposition of laws and of regulations to ensure a peaceful and safe life for its people. No, in a situation of global economic/military competition a government has the obligation to go beyond this. An effective government has to intervene in the economy of its country. As the Red Queen in said in “Through the Looking-glass”

“Well, in our country,” said Alice, still panting a little, “you’d generally get to somewhere else – if you run very fast for a long time, as we’ve been doing.” “A slow sort of country!” said the Queen. “Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!”⁶⁰

Policy and economy merge into “political economy” to ensure a prosperous population and a strong nation. There is a universal consensus here from libertarians to liberals. In one case the government has to intervene to ensure free and transparent markets, the enforcement of business and civil contracts, and break up monopolies and cartels. In the other case government has to ensure a minimum standard of living through several types social programs. In both cases there is no ‘hands-off’ government, but rather a very involved and active one. In other words, a government that creates *institutions*, employs *procedures*, makes *calculations*, and uses *tactics* to enhance the wealth and security of its *population*. A “real” government is an “economic” government. The right to rule is not grounded on a dynastic or divine basis anymore, it is based on the capacity to maintain and increase the wealth and security

of the population.

Based on the above reflections I would like to examine some relevant excerpts from the Presidential documents and Congressional hearings. As we have just seen, one of the functions of political economy is to match the needs of the employers with the skills of the potential employees. In a free and transparent market a skill that is in demand will receive higher compensation and more people will be motivated to acquire the required skills until an equilibrium is reached. The duty of the government is to create and maintain an environment in which schools are capable of offering learning services to future employees. This means having *procedures* in place for school accreditation and teacher certification, which are *apparatuses of security* and will be discussed in the next subsection.

However, once the *administrative state* has established a public school system the economic policy interventions have to be multiplied and become more and more pervasive due to the actions and reactions of the agents acting in this system. In reference to the achievement gaps presidents Clinton, Bush, and Obama have commented on the mismatch between offer and demand of work in the high tech area, an area that is vital for economic prosperity (Figure 5.10). See for example the following by President William Clinton regarding the results of a study done by the Presidential Council of Economic Advisers on Hispanic students

The study shows that Hispanics, who represent 11 percent of our work force, hold down just 4 percent of the jobs in information technology, jobs that pay much more than average in the area where jobs are growing most rapidly. Every American should be concerned about that gap. When the fastest growing demographic group in our country is underrepresented in the fastest growing employment sector, it means less opportunity and a

violation of the values that we all share. It also means that, sooner or later, our economy will have a shortage of highly skilled workers where we really need them. (WCPD-2000-06-19-Pg1366-4, 2000-01-15, Table 4.2)

The above statement was made about two months before the beginning of the deflation of the Dot-Com Bubble. The following quote by President George Bush reflects far worse an economic climate

We must confront the scandal of illiteracy in America, seen most clearly in high-poverty schools where nearly 70 percent of fourth graders are unable to read at a basic level. We must address the low standing of America test scores amongst industrialized nations in math and science, the very subjects most likely to affect our future competitiveness. We must focus the spending of Federal tax dollars on things that work. Too often, we have spent without regard for results, without judging success or failure from year to year. (WCPD-2001-01-29-Pg217, 2001-01-23, Table 4.3)

We can notice the shift from “schools are not doing enough” to “schools are not doing their job.” Christopher J. Dodd, Democratic Senator from Connecticut and member of the Committee on Health, Education, Labor and Pensions, said in 2002-05-23

According to a recent report from the Alliance for Excellence in Education, if African Americans and Hispanic Americans went to college at the same rate that whites do in this country, our gross domestic product would increase by \$231 billion, and our tax revenues would increase by some \$80 billion. Obviously, that is not going to happen without equal

educational opportunity in our K through 12 schools. (107shrg79941, Table A.10)

The title of this hearing was “America’s schools: Providing equal opportunity or still separate and unequal?” There is clear and intended reference to “Brown versus Board of Education.” However once one reads the statements in this hearing one can see that the reference to economic is not understood within the framework of “political economy.” It is placed in simpler conceptual structure where one underlines the supposed positive effects of educational achievement, and thus requests more public financing for schools in general or specific educational programs.

The following quote by the president has a more positive outlook than his previous one. First of all the economy has recovered from the previous economic crises and the following one is still several years away. The second reason is rhetorical. A politician has to proclaim “doom and gloom” to justify the implementation of new legislation that supposedly reforms an adverse situation. After the reform has been implemented the tone of the political discourse has to reflect hope and optimism with a hint of praise.

And we’re making progress all across America. We’re closing an achievement gap in this country. But there’s more work to be done. We want to make sure high school diplomas mean something. We want to make sure we have strong math and science in our classrooms so our children can compete in the 21st century. We want to make sure we’ve got Internet in our classrooms so we can bring the latest education to help every child in America. What I’m telling you is, after 4 more years a rising generation will have more confidence and more skills to be able to realize the great promise of our country. (WCPD-2004-08-23-Pg1631, 2004-08-17)

The public education system in the U.S. is so complex that one can always appeal to some statistics to support just about any contention. For instance, because federal, state and local education policy intersect each other in complex ways it very difficult to determine whether the narrowing of a certain AG is due to a federal, state, or local intervention (J. Lee & Reeves, 2012).

We should also note that the federal government has taken to be among its responsibilities that the public education system not only be operated according to principles of civil rights or justice, but now also according to the principles of political economy. See for instance the following quote also by President Bush

The gap – in that the gap is closing all across the country is really good news for the future. We’ve got to make sure every child from every background, every part of America, gains the basic skills necessary to become employable in the 21st century, which means I think we need to expand the high standards and accountability of No Child Left Behind to our public high schools so that the high school diploma means something. When you graduate, it means you can – means you’re employable, or it means you can go to a community college, or it means you go to higher education. That’s what we ought to be doing. This country ought to maintain high standards and strong accountability to make sure we have economic security in the future. (WCPD-2005-06-27-Pg1043, 2005-06-22)

In the following excerpt from a speech by President Bush at the Economic Club in Chicago we can notice how the federal governments takes on more and more responsibilities. That is, in the original version of NCLB the emphasis of interventions was on the primary schools. Now, the federal government intends to extend it to secondary schools. The justification is placed within the conceptual framework of

political economy

We've got a problem in our high schools. We're beginning to make progress at the elementary school level—over the 5 years, the test scores have risen. But we've got a problem in our high schools. Our high school American students rank below students from around the world when it comes to math and science. We measure fine in junior high grades, but for some reason, between junior high and high school, our kids are falling behind. And that's a problem. If we want to be competitive and if we want our children to be able to fill the jobs of the 21st century, we must do a better job in high school. (WCPD-2006-01-09-Pg12, 2006-01-06)

Bob Wise, President of the Alliance of Excellent Education and Former Governor of the State of Virginia expressed the same opinion the following year

The time is right for the federal government to take bold leadership in advancing secondary school reform – leadership that is appropriate to the crisis and in line with the federal government's tradition of intervening to assure the security of the nation, reduce poverty and increase equity, and advance research to inform effective practice. The increasing urgency to address the trouble plaguing secondary schools has been bolstered by an avalanche of reports recognizing the link between improving secondary education and increasing and maintain competitiveness. Such reports include ETS's *The Perfect Storm* and National Council on Economic Education's *Tough Choices – Tough Times*. (110hhr34631, 2007-04-23, Table A.55)

Bob Wise made a similar statement the following day at a hearing by the Senate Committee on Health Education, Labor and Pensions

By appropriately extending its education focus to include the needs of students in middle and high schools, the Federal Government can move the Nation from ‘no child left behind’ to ‘every child a graduate.’ (110shrg35072, Table A.72)

At a hearing by the House Science Committee the following was said by Representative Jerry F. Costello (Democrat, Illinois)

Most recently, the National Academy of Sciences’ report *Rising Above the Gathering Storm* pointed to the relatively poor performance of U.S. students in math and science as a threat to the Nation’s long-term economic health. Numerous reports in recent years, including the Academy report, have called for renewed efforts to improve K-12 education, particularly by attracting top students into teaching. Further, studies suggest the need to improve the training of both current and future teachers to enrich their understanding of the math and science curriculum. As a senior Member of the Science Committee, I have supported increased funding for federal K-12 math and science education efforts to ensure that our students – the future scientists, technologists, engineers, mathematicians, workers, and others responsible for our nation’s future innovations, our national security, our economy, and our quality of life – receive a world class education in the sciences and mathematics. (109hrg26798, 2006-03-30, Table A.28)

The above quote by Representative Costello is an example of how educational policy discourse is a crossroads of several lines of interest and pursuit. The representative believed that it was important for the U.S. economy to attract ‘top students

into teaching' and to 'improve the training of ... teachers to enrich their understanding of the math and science curriculum.' Thus, according to him the federal government should be involved in teacher training, professional development, and recruitment.

Here below are two more quotes from President Bush that illustrate the connection made between policy, economy, and education

You know, one of the real problems we have in America is an achievement gap. I guess that's a fancy word for saying that, generally, Anglo kids are doing better in the basics than African American or Latino kids. And that's not good for this country, and it's not right. And it seems like to me, we've got to focus our efforts and energies on solving that problem if we want this country to be a hopeful country with a strong economy. (WCPD-2007-07-30-Pg1011, 2007-06-26)

There is a growing consensus across the country that now is not the time to water down standards or to roll back accountability. There is a growing consensus that includes leaders of the business communities across America who see an increasingly global economy and, therefore, believe in standards and accountability. There's a growing consensus amongst leaders of civil rights organizations, like La Raza, and the Urban League, and the Education Equality Project. These leaders refuse to accept what I have called the soft bigotry of low expectations. There's a growing consensus – includes a lot of parents, and superintendents, and mayors, and Governors who insist that we put our children first. (WCPD-2009-01-12-Pg22-3, 2009-01-08)

This type of language was also expressed in Congress. For example Kati Haycock,

Director of The Education Trust, said on 2006-07-27 when concluding her statement

Strong accountability is the most important leverage we have to focus public education on continuous improvement and the quest for equal educational opportunity. The consequences of weakening accountability will reverberate in the nation's military preparedness, economic vitality, and social cohesion. (109hrg28839, Table A.32)

School accountability is certainly one of the central points of NCLB. However, there are discordant voices that claim that the reform is not the best economic policy such as

The term "achievement gaps" has become synonymous with differences in scores on standardized tests between groups of students. And, given the poor quality of tests across the country, those test scores reflect little more than a student's ability to regurgitate facts. If we are truly committed to preparing our children to compete in the 21st century economy and world, we need to develop and assess a broader set of knowledge and skills. (110hrg34417, 2007-04-12, Steve Burroughs, National Education Association, Table A.53)

The National Education Association is the largest professional organization in the U.S. and a supporter of the Democratic Party. In other words, it can afford expressing a critique even though it has to do so in nuanced terms (note the vague term 'broader') because NCLB was a bi-partisan legislation and many social action organizations supported it.

The discourse of the following president, Barack Obama, on the subject is only slightly different, in that there is no close reference to accountability and possibly

more emphasis is placed on employment and competition. See for instance the following quotes and especially the last one

American prosperity has long rested on how well we educate our children. But this has never been more true than it is today. In the 21st century, when countries that outeducate us today will outcompete us tomorrow, there is nothing that will determine the quality of our future as a nation and the lives our children will lead more than the kind of education that we provide them. Nothing is more important. (DCPD-200900884, 2009-11-04, Table 4.1)

As I said before, there are any number of actions we can take as a nation to enhance our competitiveness and secure a better future for our people, but few of them will make as much of a difference as improving the way we educate our sons and daughters. Offering our children an outstanding education is one of our most fundamental perhaps our most fundamental obligation as a country. And whether we meet that obligation not only reflects who we are as Americans, it will shape our future as a nation. Countries that outeducate us today will outcompete us tomorrow, and I refuse to let that happen on my watch. (DCPD-201000036, 2010-01-19)

We're not doing this because these schools well, we're not only doing this because these schools are a gateway to a better future for African Americans; we're doing it because their success is vital to a better future for all Americans. We know that Americans with college degrees far out-earn those without. We know that our businesses too often can't find qualified candidates for open positions. We know that other countries are out-educating their kids to out-compete ours. And yet, year after

year, a stubborn gap persists between how well African Americans are doing compared to their white classmates. Year after year, American students trail their foreign peers in too many areas. And year after year, those students who do make it to college often find themselves unprepared for its rigours. (DCPD-201000130, 2010-02-26)

It's an economic issue when the unemployment rate for folks who've never gone to college is almost double what it is for those who have gone to college. It's an economic issue when 8 in 10 new jobs will require workforce training or a higher education by the end of this decade. It's an economic issue when countries that outeducate us today are going to outcompete us tomorrow. (DCPD-201000636, 2010-07-29)

The opinions of President Obama on this subject are shared by America's Promise Alliance.⁶¹ The then president and CEO, Marguerite Kondracke said, "When President Obama and Secretary Duncan say that a long-term, sustainable economic recovery is only possible if we strengthen our education system, they are precisely correct." (111hrg49499, 2009-05-12, Table A.79) The subject of the House hearing was the high school dropout situation. The dropout rates among groups of students mirror the situation of the achievement gaps.

Figures 5.28 and 5.29 (p. 245) give an idea of the relevance of concepts related to career, graduation and college enrolment of the students in the two document collections. We notice that the graduation rate of the students becomes more important in the later years as the attention of NCLB and the political discourse shifts from primary to secondary education. The code associated with the career and employment of the students ranks number 12 in the Presidential documents (Table 4.18, p. 147) and number 15 in the Congressional hearings (Table 4.22, p. 152). The cross-code

tables (4.19, p. 149 and 4.23, p. 156) show that the careers, graduation, and college enrolment of the student are highly related concepts.

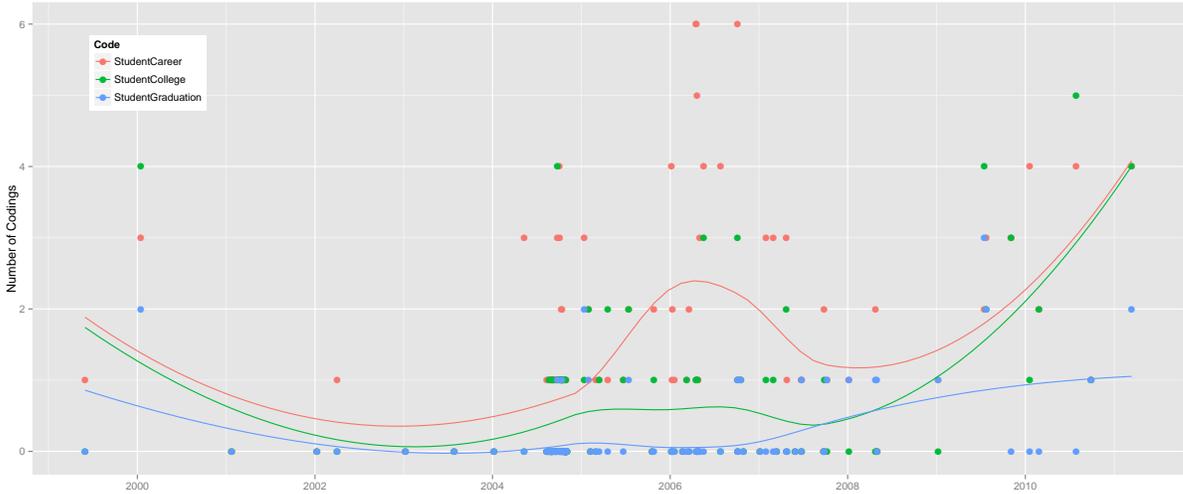


Figure 5.28: Presidential Documents - StudentCareer, StudentCollege, StudentGraduation

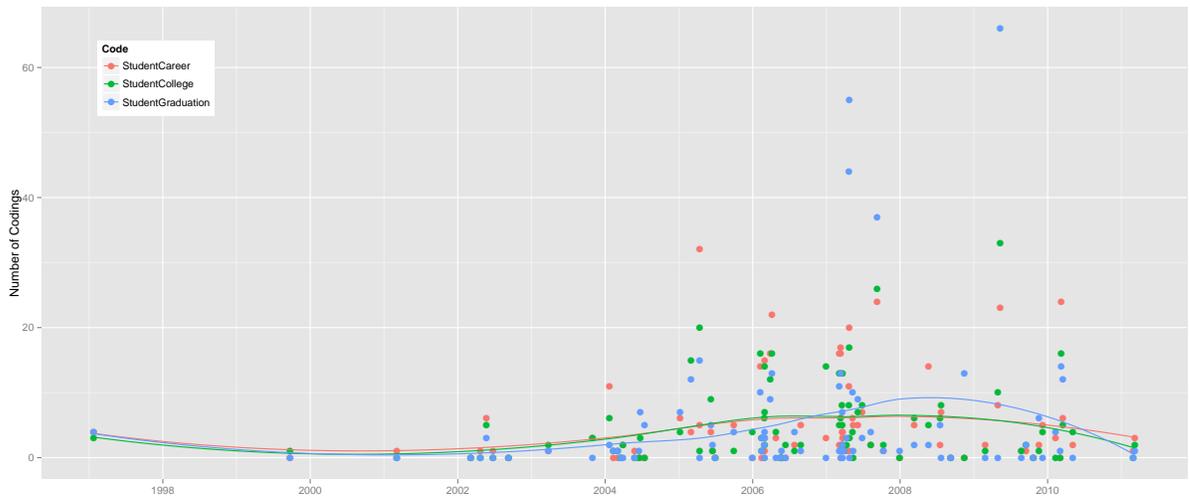


Figure 5.29: Congressional Hearings - StudentCareer, StudentCollege, StudentGraduation

The term 'college' (unstemmed) ranks 36th most frequent of the high content words and the term 'colleg' (stemmed) ranks 43th in the Presidential documents (Table 4.27, p. 161). The term 'college' (stemmed) ranks 37 in the Congressional hearings (Table 4.28, p. 162) and the term 'colleg' does not appear among the top 50 terms. The dendrogram shown in Figure 5.30 (p. 266) shows a close correlation of the terms 'diploma' and 'earn' and 'degree' with 'economi.' The dendrogram in Figure 5.31 (p. 267) shows a close correlation between 'compet,' 'diploma,' and 'global.' In addition, the dendrogram of the most frequent terms (Figure 4.3, p. 168) shows a close association between 'colleg,' 'scienc,' and 'job' and a somewhat lower association with 'centuri' and 'twentyfirst.'

5.2.7 *Apparatuses of Security*

Michel Foucault often discussed what he meant with *apparatuses of security* (AoS). He distinguishes them from 'discipline' by three considerations: (1) The AoS insert the phenomenon to be avoided within a series of probable events. (2) The reactions of power to this phenomenon are inserted in a calculation of cost. (3) Instead of a binary division between the permitted and the prohibited, one establishes an average considered as optimal on the one hand, and, on the other, a bandwidth of the acceptable that must not be exceeded (Foucault, 2009, p. 6).

Foucault identified four general features of the AoS: (1) the spaces of security; (2) the treatment of the uncertain, the aleatory; (3) form of normalization specific to security and different from disciplinary norming; (4) correlation between the techniques of security and population as both the object and subject of the AoS (p. 11).

Then Foucault proceeded to discuss each of the four general features and here below I give excerpts from the book and my understanding of the concept. Michel

Foucault gave a series of related definitions

Sovereignty is exercised within the borders of a territory, discipline is exercised on the bodies of individuals, and security is exercised over a whole population. (p. 11)

The issue of scarcity and risk is discussed later (pp. 30ff). Scarcity is an event to avoid by the government because it creates social unrest. Foucault discussed how the governments have tried to prevent scarcity, originally regarding food, i.e. wheat, through meticulous controls on production and sales. Later economic policy thought intended to use the ‘natural’ mechanisms of the market to mitigate these adverse events. Thus the AoS is no longer a juridical-disciplinary system, but rather a natural-market based system (pp. 36–37). There is an understanding that all phenomena of scarcity are aberrations, the consequence of faulty and misguided economic policy. A sound one would make the problem disappear, or more correctly, be reduced to manageable dimensions. We see the notions of self-regulation and *laissez-faire*. A consequence of this state of policy is that it is applied to a *population* and not the set of all individuals. There is a large difference, that is, there is a recognition that these mechanisms of self-regulation, these AoS, do not ensure that each and every individual will never experience ‘scarcity,’ but rather that the population, as statistically considered (*calculated*), on average and within an acceptable range of variability, will not experience scarcity (pp. 39–41). I will later return to this point because it is obvious that NLCB in part intends to operate as an AoS, but in other parts, as evidenced by the title of the law itself, it does not.

Foucault considers discipline centripetal, it concentrates, focuses, and encloses. It circumscribes a space in which its power and the mechanisms of its power will function fully and without limit. On the contrary, AoS are centripetal; they have a

constant tendency to expand. New elements are constantly being integrated. Another difference is that discipline regulates everything. The AoS let ‘things happen’ even though it is not ‘hands off’ (pp. 44–45).

A disciplinary system prescribes and prohibits, an AoS regulates, manages behavior, eliminates the excesses, and steers behavior according to a goal by using ‘natural-market’ mechanisms (pp. 45–47).

I would like now to examine some aspects of federal education policy on the achievement gaps in the light of the above brief description and analysis of the *apparatuses of security*. I intend to discuss two aspects of national education legislation, one where I see discordance with, and one where I see and agreement with these apparatuses. I would like to start with the discordance.

We have just seen how the AoS work with the “law of large numbers,” not meant in the strict statistical sense, but as stating that reasonable governmental intervention should only look at the big picture. For instance one could envision the average plus or minus one or two standard deviations and thus cover approximately 67 or 95% of the population. If we decide as a body politic to cover more of the spectrum of the population, let’s say go from two to three or more standard deviations, the cost (a *calculation*) becomes too and the principles of political economy demand that we desist (Subsubsection 5.2.6).

ESEA in its original form worked in this fashion. Please refer to Subsubsection 5.2.2 (p. 174) where I reproduced the “Declaration of Policy” of ESEA 1965. The target was the student body segment of “children of low-income families.” The law provided a funding stream to local education agencies (LEAs) with a certain concentration of low-income families according to *calculations* that would become more and more complex as time went on as we have seen previously (Subsubsection 5.2.4). The law intended to increase opportunity available to all, but does not control

or compel the LEAs to intervene on each and every one of the students, or even expect a certain result from each and every student as NCLB would later impose.

On 23 January 1997 at a hearing of the Senate Appropriations Committee, Representative Maxine Waters (Democrat, California) said the following at the conclusion of her statement

Mr. Chairman and members of the committee, I hope you will agree that the education of our children is one of if not the top priority. If we fail to prepare our children for the future, we will reap the whirlwind of their frustrated dreams. We just understand and incorporate the full context of the educational crisis in America to fully appreciate the recent actions of the Oakland School Board, as well as their strength and resolve. I believe with this perspective we can all move forward together, striving to attain the goal of equal educational opportunity for all American children.
(105shrg39641, Table A.5)

Notice the expression **all American children** and a not too veiled allusion to the possibility of racial unrest. During the same hearing Alan F. Clayton, Director of Equal Employment Opportunity (Table 4.16), said “Our schools are failing most poor children – of all colors and backgrounds.”

We notice that the first step toward including **all** students was through standards (Figure 5.22). See for example in this same Senate hearing

Our priority in California education is to raise standards for every student. This means keeping the focus on making sure every student is proficient in standard English. While I share the concerns of many parents, educators, and community members about the unacceptably low academic achievement levels of African-American students of the Oakland

Unified School District and other school districts in California, I also believe it is a disservice to African-American students to set lower standards for their achievement. My department and I are committed to high academic standards and English proficiency for all students. Separate and equal education is inherently unequal. (Delaine Eastin, California State Superintendent of Public Instruction)

Here the term is **every student** and there is an allusion to “Brown versus Board of Education.” The president during this period, William Clinton, expressed a similar opinion two years later on 31 May 1999

Based on high standards for all students, high-quality professional development for teachers, safe and disciplined learning environments, and accountability to parents and taxpayers, the Educational Excellence for All Children Act of 1999 provides a solid foundation for raising student achievement and narrowing the achievement gap between disadvantaged students and their more advantaged peers. More important, it will help prepare all of our children, and thus the Nation, for the challenges of the 21st century. I urge the Congress to take prompt and favorable action on this proposal. (WCPD-1999-05-31-Pg964, Table 4.2)

An almost synonymous expression for academic (high) standards is “(high) expectations” (Figure 5.32). President Clinton used this language in 2000

The first step to closing that gap is to believe, as I do, that high expectations are for all students. (WCPD-2000-06-19-Pg1366-4, 2000-01-15)

The above quotes show clearly that we are not operating according to the principles of governmentality and that the All Children Act of 1999, a failed proposal,

but almost completely reborn as NCLB, is not really an *apparatus of security*, but is closer to a *régime of discipline*. Why is educational policy not creating *apparatuses of security*? I suppose the fact that according to the U.S. legislative framework children, and thus students, have at best only partial agency, and that appeals to their ‘natural’ desires would not result in academic achievement as commonly understood. There have been a few local programs where cash incentives were given to students, which, even though apparently effective, have not proliferated. Kindergarten and the first grades teachers have a *practice* of symbolic and verbal rewards, but its efficacy vanishes in later school grades. As we will see, NCLB makes appeal to the ‘natural desires’ of the parents (Figure C.50) and later on RTTT will do so for the teachers (Figure 5.25). It is worth reflecting on the fact that Foucault considers the government through a *régime of discipline* more primitive and scarcely effective, especially in a modern, complex, and technologically advanced society.

The intent of a universal standard is not necessarily universal achievement. After all, standards could be interpreted as an ideal goal, similarly to ‘full employment,’ ‘no crime,’ ‘zero inflation,’ ‘zero newborn mortality,’ ‘universal literacy,’ ‘no poverty,’ and so on. However, we all know that the real world can at best approximate the ideals and we are usually content with getting reasonably close to the ideal or making progress towards it. However, strangely this did not happen in federal education policy. NCLB legislated instead that the ideal should be attained by 2014 and punishment was to be administered otherwise. In addition all Title I schools were obliged to show Adequate Yearly Progress (AYP) even from the start. See for instance the following quote by President George Bush

We stand for equal opportunity. It’s one of the ideals we believe in, in America. And equal opportunity demands schools that are effective and

excellent. We must give all our children, every single child in America, the basics of knowledge and character, and we must leave no child behind. (WCPD-2002-04-08-Pg551-2, 2002-04-02, Table 4.3)

Two years later on the re-election campaign trail the president would often speak about standards and achievement. However, his language was more measured. He would simply say that he believed “that every child can learn” (see WCPD-2004-09-13-Pg1819, WCPD-2004-09-13-Pg1851, WCPD-2004-09-20-Pg2025, WCPD-2004-10-18-Pg2312, WCPD-2004-10-18-Pg2344, WCPD-2004-11-01-Pg2660, WCPD-2004-11-01-Pg2679, and WCPD-2004-11-08-Pg2708). He also used the expression “will not let any child get behind in America” or a close variation thereof (WCPD-2004-10-18-Pg2312, WCPD-2004-10-18-Pg2399, WCPD-2004-10-18-Pg2405, WCPD-2004-10-25-Pg2425, WCPD-2004-11-01-Pg2549, WCPD-2004-11-01-Pg2555, WCPD-2004-11-01-Pg2561, WCPD-2004-11-01-Pg2567, WCPD-2004-11-01-Pg2628, WCPD-2004-11-01-Pg2679, and WCPD-2005-03-21-Pg440, see Table 4.3 and Figure C.24).

Those are relatively vague and uplifting statements that almost any one would agree with. Probably that is the reason he used those expressions during an electoral period. After all, appealing to an as wide as possible section of the electorate is a sound campaign strategy. In later speeches President Bush would state that the law was working and the AGs were closing and there was no arguing with success.

His successor, President Barack Obama, expressed himself on the subject in a very similar fashion. For example

But even if we do all of those things, America will not succeed in the 21st century unless we do a far better job of educating our sons and daughters, unless every child is performing the way Matthew [a model

student] is performing. In an economy where knowledge is the most valuable commodity a person and a country have to offer, the best jobs will go to the best educated, whether they live in the United States or India or China. (DCPD-200900595, 2009-07-24, Table 4.1)

So yes, we've still got more work to do here at this school to close the achievement gap. I think Dr. Word would agree with that. We've got to make sure that every student is on track. (DCPD-201100172, 2011-03-14)

Why do we have this type of Manichean language by the presidents? There is a relatively long tradition of U.S. presidents that have declared “war” on several real or perceived dangers to society, such as poverty, drugs, and terrorism. All have at best a mixed track record, but provide a fertile source for political rhetoric as well as ample government funding and employment. Probably it would be considered unpatriotic or callous or reckless by a president to aim for anything less than complete success, at least on a discourse level. The achievement gap has been placed by NCLB in this same type of polemical discourse. We have thus drifted away from the *apparatuses of security* towards a *régime of discipline* except for the war on poverty that has mostly disappeared from the public discourse. The wars on drugs and terrorism have created very complex and costly disciplinary structures and the fight to eliminate the achievement gaps has finally developed into a structure where disciplinary actions against school first (NCLB) and teachers later (RTTT) have been implemented. We will now examine the discourse in Congress on universal achievement (Figure C.58).

Soon after the enactment of NCLB the then Secretary of Education, Dr. Roderick Page, said the following during a Senate Appropriations hearing

The Department is committed to recognizing schools that make significant progress in closing achievement gaps and in ensuring that all children

learn to high standards. (107shrg78480, 2002-03-07, Table A.8)

A couple months (2002-05-23) later the discourse shifts from ‘recognition’ of schools to ‘accountability’ of schools in the opening statement of Senator Christopher J. Dodd (Democrat, Connecticut)

Last year, Democrats and Republicans worked very closely with the President to pass the “No Child Left Behind Act,” to hold schools accountable for closing the achievement gap for low-income students, minority students, limited English-proficient students, and students with disabilities, to hold schools accountable for all students performing at a very high level. (107shrg79941, Table A.10)

The law is demanding that **all** students perform at a **very high** level. During the same Senate hearing criticism is already expressed by Senator Edward Kennedy (Democrat, Massachusetts), but not about the law itself, but rather its funding. The senator was a co-sponsor of the law and could thus not criticize it directly. However, the implication of any law that requires a **complete** resolution of a social problem is the expenditure of large amounts of money. Not necessarily a bad thing if it is directed towards a certain constituency that has historically supported one’s political party. Here is the excerpt

The new education reform bill passed only months ago places substantial new demands on local schools, teachers, and students. Students will be tested on more challenging curricula and schools and teachers will be held accountable for results. But schools cannot achieve high standards on low budgets. We have an obligation to match new education reforms with new resources, so that all children will have a fair chance at academic success, no matter what school they attend.

Criticism of the law itself would appear a few years later. An example is the following statement by Leland Leonard, Director of the Division of Dine' Education of the Navajo Nation

The large gap in proficiency – The goal of full proficiency within a 12-year period is far more realistic in schools where students are already testing at a high level of proficiency than in those where proficiency levels are very low. For example a school where 75 percent of the student body is already rated as proficient, may have a relatively easy time of achieving the small increments necessary to make AYP. A school that begins with 10 percent of its students rated as proficient will have to consistently make dramatic gains. Even exceptional progress may still not be enough to avoid being labeled as failing. (109shrg21951, 2005-06-16, Table A.35)

However, the education of Native American children at the national level is a relatively minor issue. Let us examine two excerpts from a long statement by Andres Henriquez of the Education Division of The Carnegie Corporation

Many urban school systems have succeeded in improving student achievement in the elementary and middle school setting, but these gains are not sustained and, sometimes, are even offset by losses at the high school level. In most urban high schools, as many as half the students drop out before completing their studies. Even many graduates do not show adequate levels of academic achievement, with up to one-third of high school graduates requiring remedial coursework at the post-secondary level. These problems are compounded by the fact that groups of students with varying family incomes and different ethnic backgrounds are separated by wide gaps in academic achievement.

....

The current model for the American high school, which is obsolete, was not designed to educate all students to high levels of achievement, but rather to manage students by sifting and sorting them, with only a minority of students prepared for higher education. (109hhr21648, 2005-06-09, Table A.25)

Thus more than three years after the implementation of NLCB and about 9 years away from full proficiency for all students the situation is still not promising. Nonetheless during the following year in a statement by the House Committee on Education and the Workforce optimism was expressed

Initial results show No Child Left Behind is working to improve student achievement and reduce the achievement gap between disadvantaged students and their more fortunate peers. Long-term trend data released last summer reveals significant improvements in overall student achievement, with noteworthy gains among minority students. And according to data presented to Congress by the Council of the Great City Schools, urban students have posted higher math and reading scores on state tests since No Child Left Behind was signed into law. (109hhr27985, 2006-05-18, Table A.30)

Similar language was expressed by the Deputy Secretary of Education of the federal administration, Raymond Simon, during the following month at a House hearing

I want to begin today by saying unequivocally that increasing accountability for students at all levels – in the school, the school district, and the

State – is at the core of President Bush’s No Child Left Behind reforms. In fact, NCLB was designed to shine a light on those students who have so often been left behind in our Nation’s schools: African-American and Hispanic students, students with disabilities, students with limited English proficiency (LEP), and economically disadvantaged students. NCLB requires that these students be tested annually, that their scores be publicly reported, and that schools, districts, and States be held accountable for their academic performance. This is the only way to close achievement gaps between minority students and their peers and ensure that all students read and do math on grade level by 2014.

State accountability plans under NCLB reflect these goals, and use student assessment data in reading and mathematics to determine whether each district and school is making adequate yearly progress (AYP) toward the statutory requirement of 100 percent grade-level proficiency by 2014. A fundamental component of AYP is looking at assessment data disaggregated by various subgroups based on race, ethnicity, poverty, disability, and limited English proficiency. A school makes AYP only if each subgroup – not just the overall student population – meets annual proficiency objectives. (109hhr28431, 2006-06-13, Table A.31)

It is interesting to note that according to the Committee on Education and the Workforce

Today’s hearing will address concerns that the test scores of some disadvantaged and minority students are not being disaggregated in school and district adequate yearly progress calculations under the No Child Left Behind Act.

In other words, the federal law was not strictly implemented in the periphery. The LEAs and states are trying to blunt or lessen the stringent requirements of NCLB. I understand this situation as an inherent structural contradiction between the *apparatuses of security* that NCLB provides, such as funding for accountability, requirements of measurements and teacher qualifications and the *régime of discipline* type outcome that the law demands, namely the full proficiency by 2014 requirements for all students. Indeed the next month another House hearing was held about another aspect of the AYP calculation. That is, a request to a different type of calculation, one that would be more ‘forgiving’ to schools and would increase the number of schools that could meet the AYP. Several states wanted to move from a ‘status model’ to a ‘growth model.’ Let us examine the following excerpt by Marlene S. Shaul, Director for Education, Workforce, and Income Security Issues of the U.S. Government Accountability Office

Mr. Chairman and Members of the Committee: I am pleased to be here today to discuss our report, which describes how states use growth models to measure academic performance and how these models can measure progress toward achieving key goals of the No Child Left Behind Act of 2001 (NCLBA). With annual expenditures approaching \$13 billion dollars for Title I alone, NCLBA represents the federal government’s single largest investment in the education of the 48 million students who attend public schools. The NCLBA – the most recent reauthorization of the Elementary and Secondary Education Act of 1965 – requires states to improve academic performance so that all students are proficient by 2014 and achievement gaps among groups such as economically disadvantaged students close. The upcoming reauthorization of the law

presents an opportunity to discuss some key issues associated with the act. (109hrg28839, 2006-07-27, Table A.32)

The report was cautious and mostly descriptive. No indication was given about the feasibility of reaching the main goal of NCLB. With all these problems, why did such a law pass with so great a support in Congress and in the U.S. society at large? I think that the following statement by Joel Klein, Chancellor of the New York Department of Education, given at the same hearing explains very clearly the reason

For decades, school reformers have tried and failed to fix education in America, to ensure that American students do not fall behind their international peers and to ensure that all students in this country, no matter what their race or socio-economic status, are receiving the high-quality educations they deserve. The law that we're discussing today, No Child Left Behind, might not be perfect, but it is incredibly valuable because it recognizes that the achievement gap – the gap that separates our African-American and Latino students from their white and Asian peers – is the chief, though certainly not the only, problem in American schooling. When Congress passed NCLB, it helped America finally take responsibility for the fact that white and Asian students are performing four years ahead of African-American and Latino students in high school. Four years. And this law finally puts muscle behind the attempt to close that gap. It forces us to report student performance in grades three through eight by race. We can no longer mask the deficiencies of some students with outsized gains by others.

Phyllis McClure, Dianne Piche and William L. Taylor of the Citizens Commission

on Civil Rights stated that “as a natural extension of the principles of *Brown v. Board of Education*, we have long endorsed a strong federal role to ensure that our nation’s public school systems live up to our national demands for both equity and excellence.” (109hrg29626, 2006-08-28, Table A.33)

The following year (20070-03-13) at a joint hearing on the subject of the re-authorization of ESEA, which had the telling title “Improving NCLB to close the Achievement Gap,” Reg Weaver, president of the National Education Association, gave a very detailed and extensive presentation during which he said that

It [The law’s AYP model] fails to recognize that all children can learn, but all children do not learn at the same rate. It fails to include fair, valid, and reliable measures for students with special needs, including students with disabilities and English Language Learners. It fails to differentiate between those schools that are truly struggling to close achievement gaps and those that fall short on only one of 37 federally mandated criteria. Finally, it fails to include a comprehensive set of measures for school quality and student learning, focusing only on one statewide standardized test in two subjects. (110jhr33757, Table A.68)

We can perceive the tension between a *régime of discipline* and an *apparatus of security*. There are more signs that it may not be possible to attain full proficiency as NCLB prescribes

Federal investment at the middle and high school level is not sufficient. The main source of Federal funds is through the title I program. Yet, only 8 percent of students who benefit from these funds are in high school. Ninety percent of high schools with very low graduation rates have very low-income students. But only a quarter of these schools receive title I

funds. We need to dedicate more resources and support for secondary schools to improve academic achievement and ensure that every student has a fair opportunity to graduate. (Senator Edward Kennedy, 110shrg35072, 2007-04-24, Table A.72)

Closing the achievement gap and ensuring that every student is proficient in reading requires an intense focus on literacy teaching and learning in the middle grades. (National Middle School Association, 110shrg35072)

On the other hand, the most serious flaw in this draft concerns the retention of an arbitrary accountability time line, that all students be proficient by 2014, along with a set of calibrated benchmarks. This uniform deadline assumes that the schools and districts furthest from the goal can make the most extraordinary gains. But the assumption directly contradicts what research tells us about the rates of improvement we can expect from the most successful districts. The goal of 100 percent proficiency in six more years will not be attained because all schools and districts would have to do something that has never been done in any district unless the standards were extremely low. The solution is straightforward – set reasonable growth goals and hold schools and districts accountable for improving at a rate that research says is attainable. Specifically, the 100% proficiency requirement by 2014 undermines the credibility of the law, punishes rather than rewards many successful schools, and should be replaced by realistic growth targets based on the progress achieved in the quartile of districts making the most rapid progress in the state. This is consistent with the shift of attention to progress measures in the draft bill. Shifting the focus from the unattainable ideal to ambitious yet

realistic goals would also help create conditions more likely to encourage highly qualified teachers and principals to stay in the schools that most seriously need them. (Daniel J. Losen, Civil Rights Project of UCLA, 110hhr37638, 2007-09-10, Table A.60)

It is important that we have a thorough understanding of the prevalence and importance of the larger environmental factors in a student's life that influence their academic success. Unless we address these foundational issues, not even the best teachers with the highest quality curriculum will be able to ensure that every student graduates ready for college. (Marguerite Kondracke, America's Promise Alliance, 2009-05-12, 111hhr49499, Table A.79)

We need to move away from punitive measures based on a single test on a single day, and toward recognizing and rewarding schools and teachers based on growth and progress. And we need to give states and districts much more flexibility, while focusing interventions where they are most needed. (Arne Duncan, Secretary of Education, 2011-03-09, 112hhr64795, Table A.90)

The stemmed term 'expect' that is derived from words such as the noun 'expectation' and the verb 'to expect' has a frequency rank of 16 in the Presidential documents (Table 4.27). These terms are usually associated with the expectations of student achievement. In the correlation plot for the most frequent terms in this document collection the term 'expect' is at the center of the terms 'believe,' 'child,' 'learn,' 'result,' and 'reform' (Figure 4.4). This is an indication of how the school policy ('reform') is closely related to the concepts of educational achievement expectations and the belief that high instead of low results can be obtained. The same

type of relationships between these terms are presented in the cluster dendrogram for the term ‘reform’ (Figure 5.36, p. 271) and ‘standard’ (Figure 5.35, p. 270), as well as the association tables (Tables 5.2, p. 265 and 5.1, p. 217) and the dendrogram of all most common terms (Figure 4.3, p. 168).

A relatively simple *apparatus of security* that has existed in the United States for quite some time is the certification of teachers. The states have instituted it to guarantee that teachers have a minimum set of qualifications and preparation that is deemed appropriate for a particular state. Any one who desired to teach in a public school is supposed to meet these requirements. The passing of NCLB has placed teacher certification in the spotlight. One of its provisions is that there should be in each classroom a “highly qualified teacher” (Figures 5.37 and 5.38. This provision will be discussed more extensively in Subsubsection 5.4.2). On the surface it is a very reasonable requirement. If we want all students to have a comparable quality of education, we should make sure that all of them are instructed by qualified teachers. The U.S. public education system has a problem with a concentration in poorer schools of teachers that teach out-of-subject. Due to the local nature of public education in the U.S., teacher salaries and work conditions vary greatly from school district to schools district, and often also between schools. Teachers, as anyone else would, desire from their employment an as high as possible remuneration, as well as a pleasant work environment and professional status.

Table 5.2: Presidential Documents - Terms Associated with “reform”

reform	kept	elect	extend	choic	life	qualiti	build
1.00	0.66	0.62	0.59	0.53	0.53	0.52	0.43
bigotri	bring	soft	minor	famili	rise	term	involv
0.42	0.42	0.42	0.41	0.39	0.39	0.39	0.37
care	presid	vision	pass	health	word	low	candid
0.35	0.35	0.35	0.34	0.33	0.31	0.29	0.28
pledg	educ	close	classroom	public	see	expect	promis
0.28	0.27	0.24	0.23	0.23	0.23	0.21	0.21
success	challeng	gap	score				
0.21	0.20	0.20	0.20				

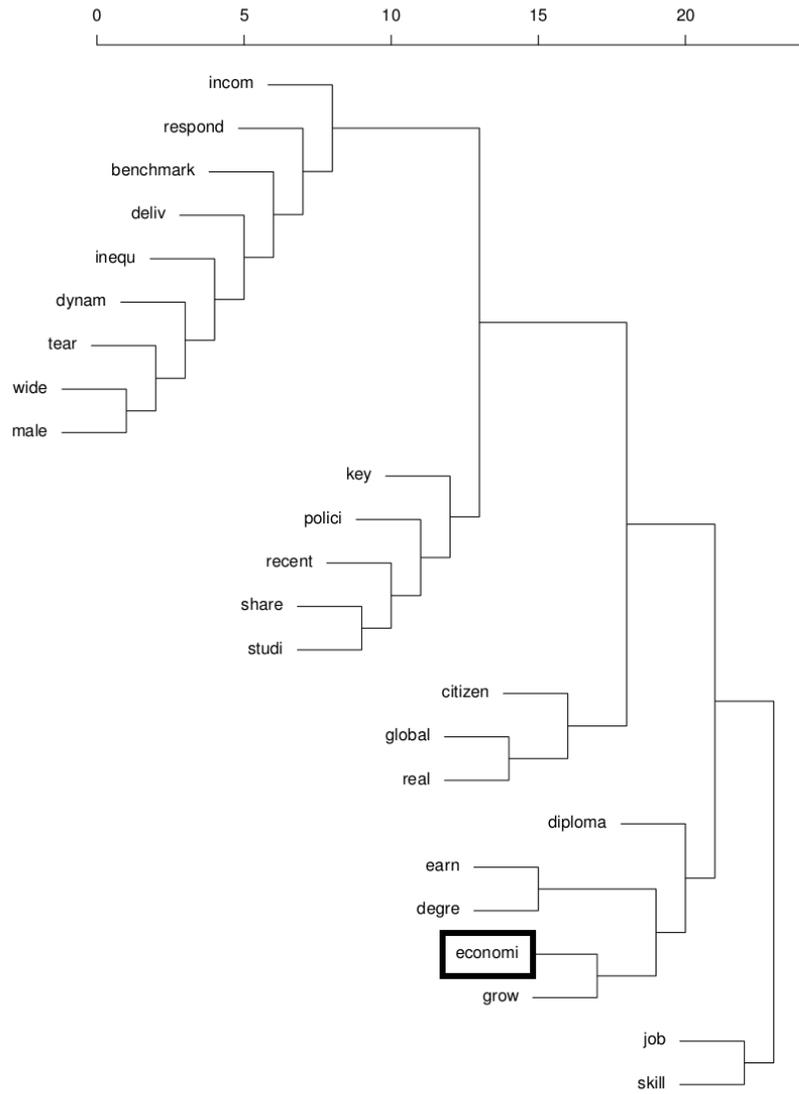


Figure 5.30: Presidential Documents - Dendrogram of “economy”

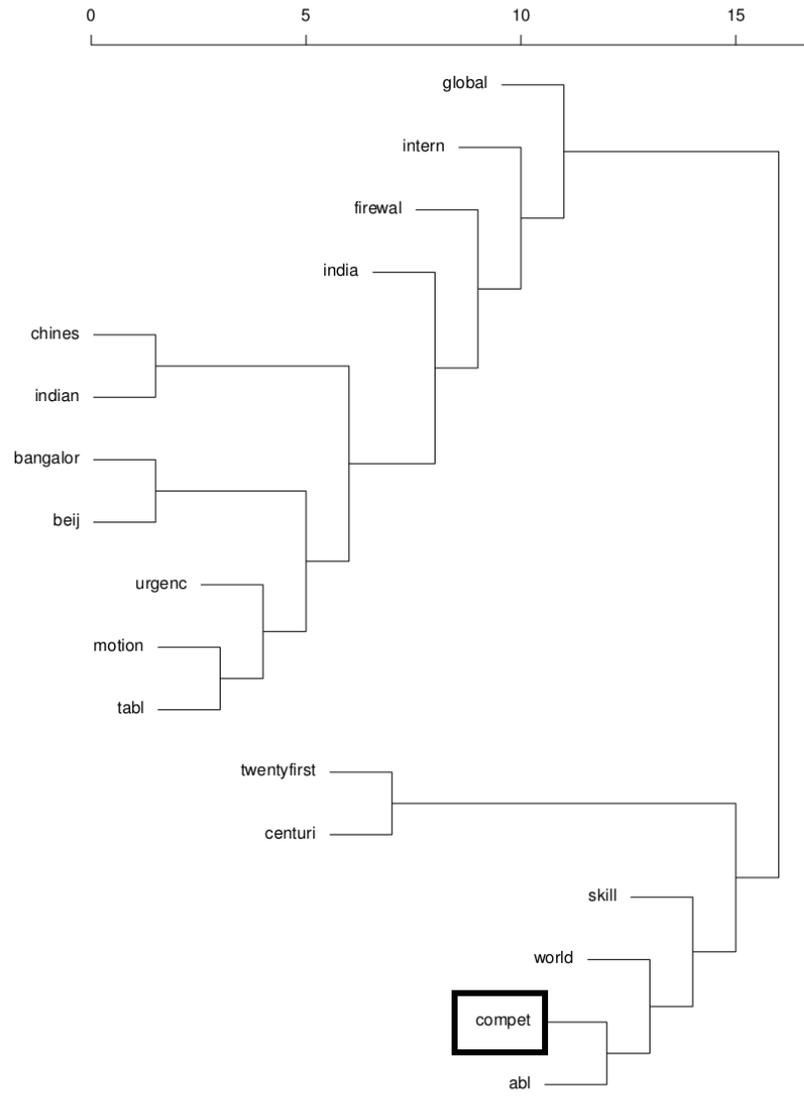


Figure 5.31: Presidential Documents - Dendrogram of “compet”

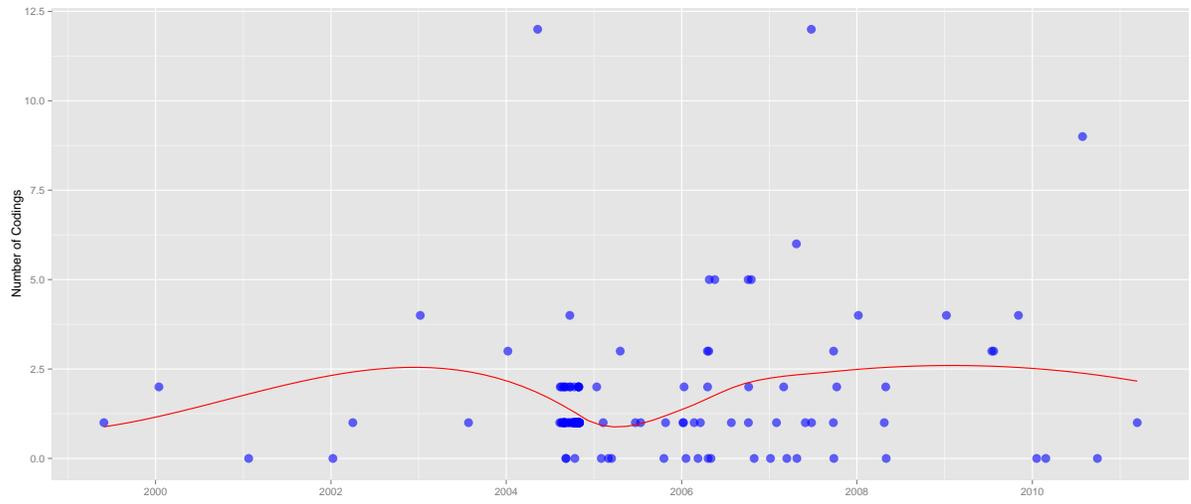


Figure 5.32: Presidential Documents - StudentExpectation

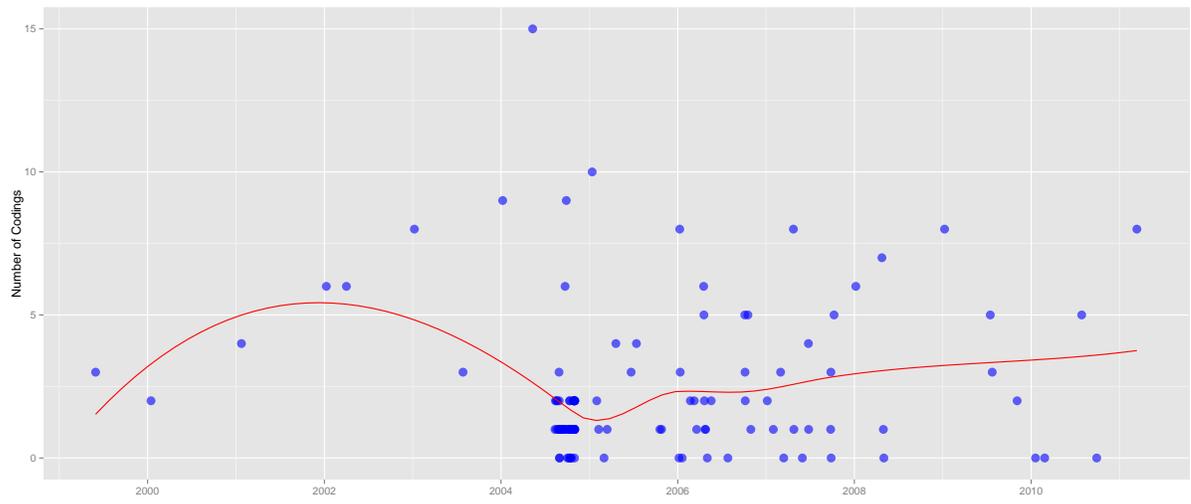


Figure 5.33: Presidential Documents - StudentAll

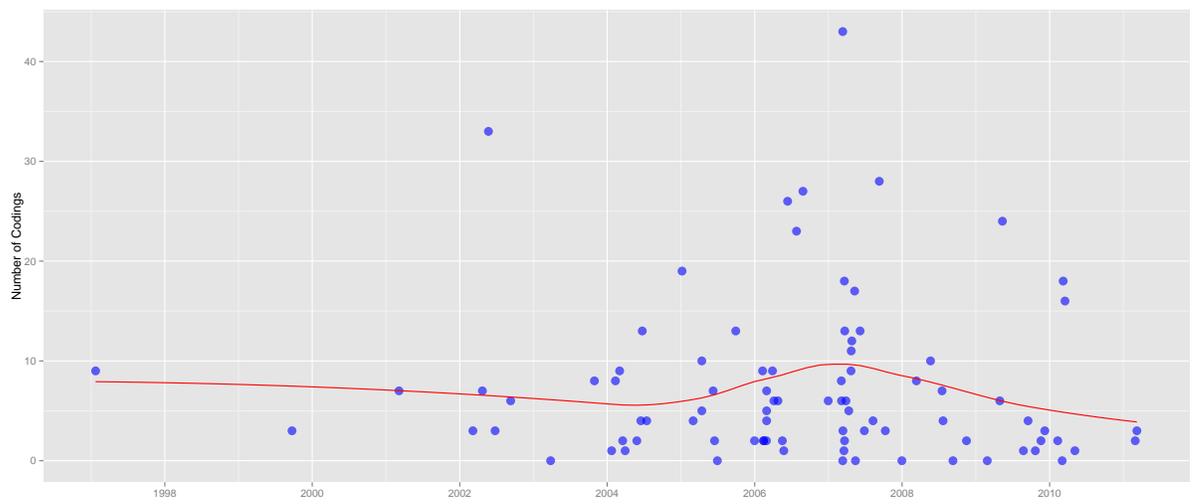


Figure 5.34: Congressional Hearings - StudentAll

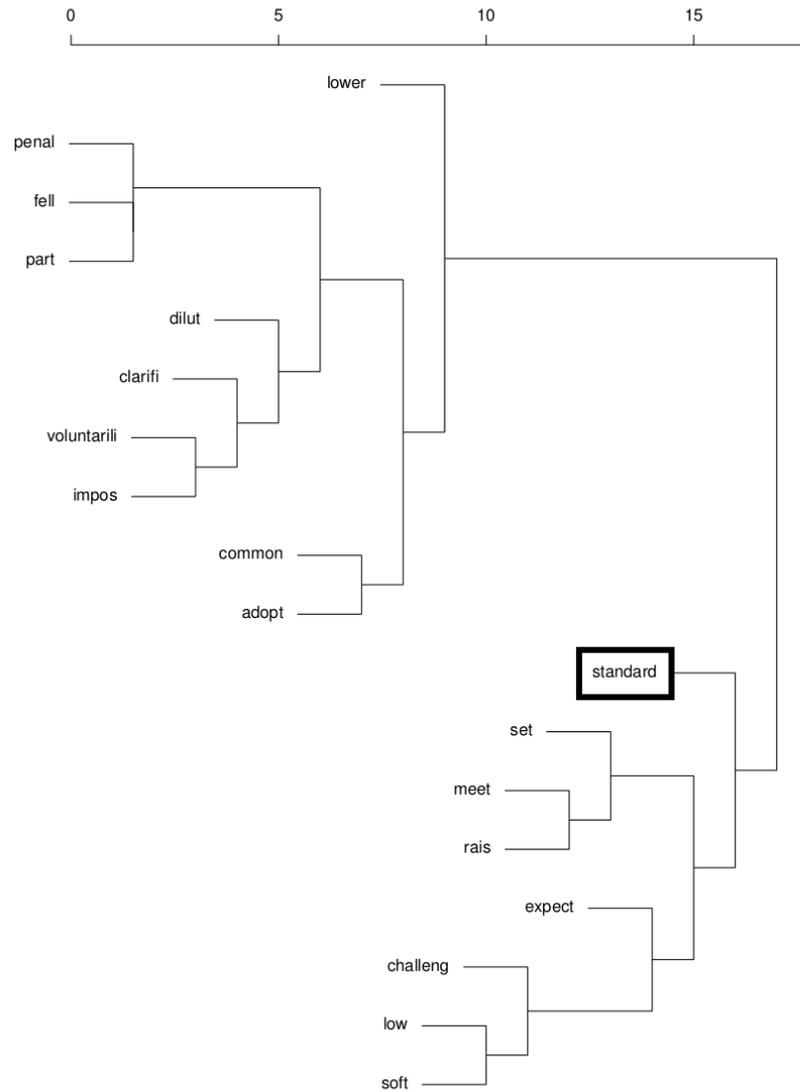


Figure 5.35: Presidential Documents - Dendrogram of “standard”

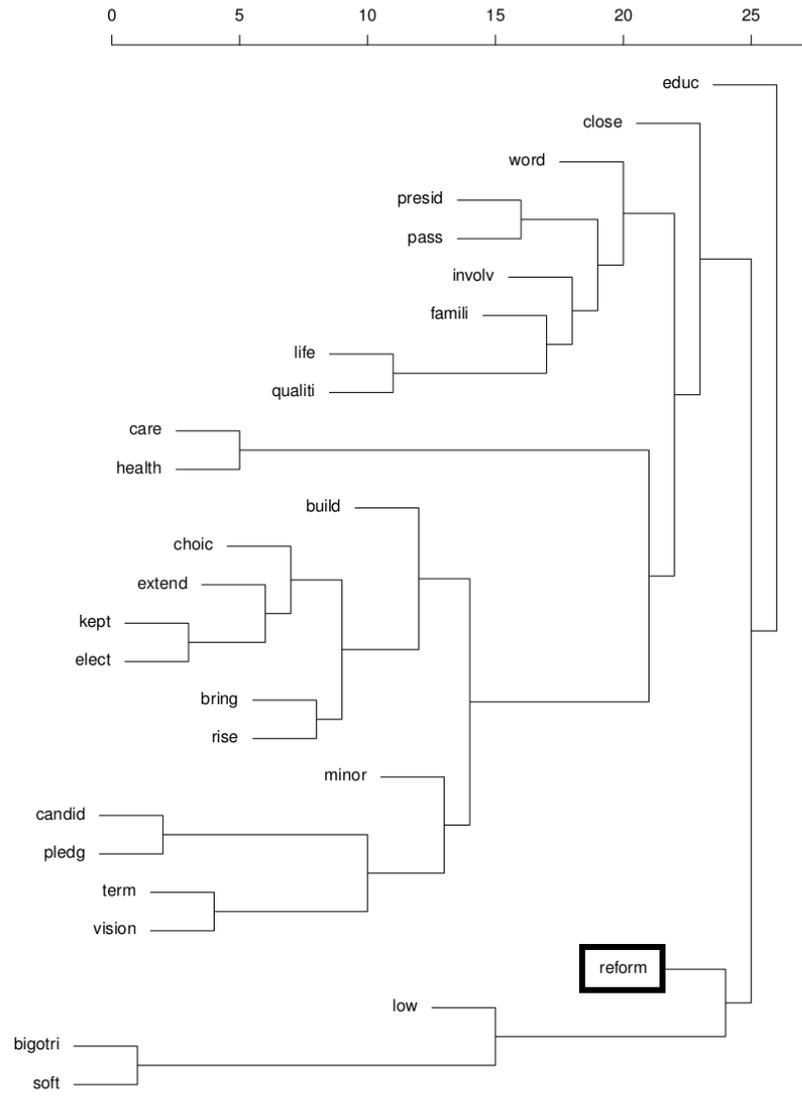


Figure 5.36: Presidential Documents - Dendrogram of “reform”

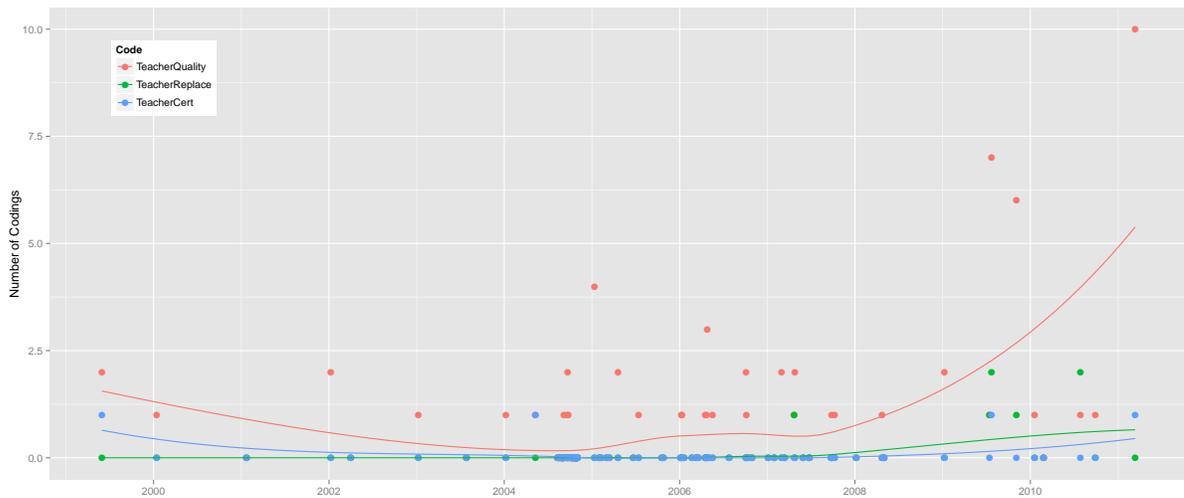


Figure 5.37: Presidential Documents - TeacherCert, TeacherQuality, TeacherReplace

Thus, an *apparatus of security* that operates, as Foucault stated, in harmony with the market forces and the natural desires of the population would have to be a system that would offer better pay and working conditions in less desirable schools. Even a uniform pay across states would not be enough, it would actually have to be higher in ‘difficult’ schools than in desirable schools. The system of decentralized financing of schools is not able to do so. The federal or state governments would have to subsidize teacher salaries. There are programs that do so. However, they are not systematic and depend on inconsistent funding sources.

As we have previously seen with the requirement that **all** students be proficient, also in this respect NCLB goes against the ‘natural-market’ forces and the desires of the teachers. Such a situation will be remedied only by applying *procedures* that operate according to the natural desires of the participants or otherwise implement a *disciplinary régime*. As we will see here, the states have generally tried to evade or ignore this provision of the law as it is the most intractable aspect of the education

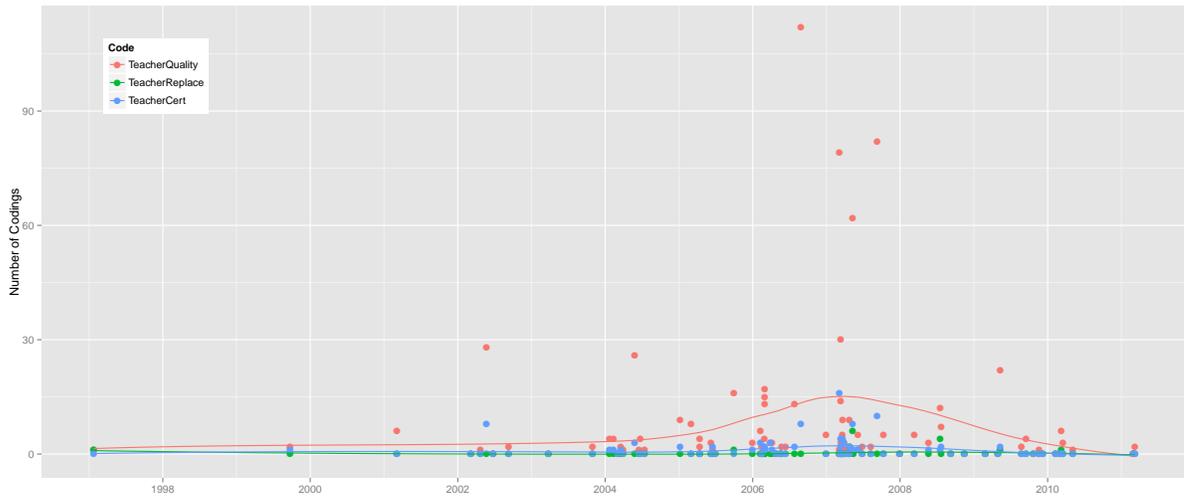


Figure 5.38: Congressional Hearings - TeacherCert, TeacherQuality, TeacherReplace

system in the U.S. that is unequal by design and tradition.

In the following quotes from presidents and Congressional hearings we will see a discussion of this problematic. President Bush acknowledges the problem of in the following excerpt

We'll emphasize math and science so our kids can fill the jobs of the 21st century. We'll reward teachers who gets results for their students. We'll give our best teachers incentives to teach in the neediest schools. (WCPD-2004-09-27, 2004-09-22, Table 4.3)

Several months later he is more specific in this regard

And finally, I believe the Federal Government can put a program together to help reward success for our teachers. I proposed a new \$500 million incentive fund to reward teachers who get results. Teachers could qualify for an award by raising student performance or closing the achievement

gap or volunteering to teach in low-income schools. That will be up to the local districts, to decide how to disburse the money. But I think it makes sense to encourage excellence by providing a \$5,000 bonus to nearly 100,000 outstanding teachers across the country. The program won't be administered at the Federal level. It will be administered at the State and local level. But it's a way to help say to teachers, "Thanks for a job well done. Here's a little extra because of merit. Here's our way of saying thanks for doing what you want to do, which is provide excellence." (WCPD-2005-01-17-Pg45, 2005-01-12)

However, to equalize teaching quality among poor and wealthy schools much more than "a little extra" is needed. A \$5,000 bonus for nearly 100,000 teachers in a large country as the U.S. is not even a drop in the bucket. I think that it is a sign of the intractability of the problem that the president has to mention it, but cannot do anything about it in practical terms. The following president, Barack Obama, would make similar remarks on this subject, an indication that after about 7 years of NCLB the problem has not been solved

Now, it's time to start taking this commitment seriously. We've got to do a better job recruiting and preparing new teachers. We've got to do a better job of rewarding outstanding teachers.

It means bringing quality teachers in it means bringing quality teachers to the neighborhoods that need them the most, because right now a lot of what happens is, is that some of the best teachers, as they get seniority, they move on to the places, the school districts that pay better and, frankly, are easier to teach in. And we've got to give them some incentives to stay so that the kids who need the most help are getting

some of the best teachers. (DCPD-200900884, 2009-11-04, Table 4.1)

So I want teachers to have higher salaries. I want them to have more support. I want them to be trained like the professionals they are, with rigorous residencies like the ones that doctors go through. I want to give them a career ladder so they've got opportunities to advance and earn real financial security. I don't want talented young people to say, I'd love to teach, but I can't afford it.

I want them to have a fulfilling and supportive workplace environment. I want them to have the resources, from basic supplies to reasonable class sizes, that help them succeed. (DCPD-201000636, 2010-07-29)

But what hasn't worked is denying teachers, schools, and States what they need to meet these goals. That's why we need to fix No Child Left Behind. We need to make sure we're graduating students who are ready for college and ready for careers. We need to put outstanding teachers in every classroom and give those teachers the pay and the support that they deserve. (DCPD-201100172, 2011-03-14)

Soon after the implementation of NLCB on 2002-01-08, Representative Chaka Fattah (Democrat, Pennsylvania) made the following remark at a Senate hearing

Today, I am here as a sincere advocate for what I believe is missing, both in theory and in practice, from the approach taken in H.R. 1 [i.e. NCLB] to improving our public school system. To accomplish the goal of providing every student with a high quality education, we must act decisively to eliminate inequities that exist among public school systems within and among States. Therefore, I come here this morning, calling

upon our Nation's leaders to make certain that all children, regardless of income level or place of residency, are provided adequate educational resources to become successful members of society. In order to accomplish such a fundamental feat, we must require that our Nation's public school systems provide all students seven essential elements for learning, which include: (a) instruction from a highly qualified teacher; (b) rigorous academic standards; (c) small class sizes; (d) up-to-date instructional materials; (e) state-of-the art libraries; (f) updated computers; (g) qualified guidance counselors. (107shrg79941, 2002-05-23, Table A.10)

Actually, NCLB already requires elements (a) and (b), and the other points, besides possibly (c), have at best a minor effect on achievement. Michael A. Rebell, Executive Director of the Campaign for Fiscal Equity, also participated in this hearing and said the following in regards to this subject

Qualified and experienced teachers – the most important resource in our public schools – are in shortest supply in schools that serve our neediest children. School districts with low teacher salaries cannot recruit and retain qualified teachers, losing the best-qualified candidates to wealthier school districts that can pay higher salaries or to better-paying jobs in other sectors of the economy. Courts in several States have ruled that inequitable outcomes of public school students are strongly linked to high proportions of unqualified teachers – measured in terms of lack of appropriate certifications, poor undergraduate preparation, low performance on teacher certification exams, and high teacher turnover – in low-income urban and rural school districts.

In Arkansas, for instance, a court recently found that "... disparity ...

in teachers' salaries ... are so great that they work to destabilize the education system by driving qualified teachers away from districts where they are most needed. Schools and school districts with more disadvantaged students need more qualified teachers per student. However, the schools with the highest number of disadvantaged students are typically the schools which have the lower teacher salaries."

A few months later Michael Casserly, Executive Director of the Council of the Great City Schools, stated at another Senate hearing

Requiring, encouraging, or providing incentives for highly skilled administrators and teachers to transfer to low-performing schools may improve the stock of staff at those schools and help disadvantaged and minority children succeed. (107shrg81758, 2002-09-10, Table A.12)

The House Committee on Education and the Workforce organized a hearing on the subject of teacher quality in 2004-05-27. During this hearing Dr. Lewis C. Solmon of the Milken Family Foundation stated

Yet, despite the evidence that quality teachers are of utmost importance, until No Child Left Behind, ensuring a quality teacher for every student has not been a priority in the myriad attempts to improve public schools. But we do not have enough high quality teachers, and there is a serious mal-distribution of the best. The best teachers usually want to teach where their job will be easiest, safest and most rewarding, that is, in schools with higher SES families. The most qualified teachers in the inner city are most likely to move when there is an opening in the suburbs. They rarely get any recognition, financial or otherwise, for staying with

the more challenging situation. New teachers fill the vacancies in the in the poorest schools, spend their first few years trying to figure out what to do, and by the time they become effective teachers they move on, only to be replaced by other neophytes. Meanwhile, the most advantaged children are assured a constant flow of the best teachers.

More importantly in the spirit of Brown, we must keep many of our best teachers in schools where they can help our most needy students. Significant extra compensation for those teaching in the poorest schools will help.

When the quality of teachers available to minority students is as high or higher than the quality of teachers available to whites, all children will have equal opportunities to learn, which was the real purpose of the Brown decision. (108hhr93983, Table A.19)

The following year, on 2005-09-29, a similar statement was made by Kati Haycock, Director of The Education Trust

Despite knowing the importance of teacher quality, especially for students with little support for education outside of school, and despite all of the lofty language and public commitments to closing the achievement gap, we systematically assign our most vulnerable students to our least qualified, least experienced teachers. When there are shortages, poor and minority students get out-of-field teachers; as teachers accrue valuable experience, they often transfer into – and are paid more to teach in – the most affluent schools. So high-poverty and high-minority schools tend to have a harder time recruiting quality teachers, and then serve as a revolving door for the novice teachers they help train.

Unfortunately, the U.S. Department of Education has not actively implemented the teacher quality provisions. For the first two and half years after NCLB was enacted, the Department refused to exert any authority at all over the states' implementation.

What we are left with is a bold policy initiative from Congress that has never seen the light of day. Billions of dollars in new federal money have been poured into teacher quality initiatives with no federal oversight. This vacuum of federal action has allowed states to game the system, making compliant states look bad and conniving states look good. Most states have taken advantage of the Department's lax enforcement to report that almost all classes already are taught by highly qualified teachers, even in the highest poverty schools. This despite years of research about grave shortages in certain subjects, such as secondary math and science. Even more disturbing has been inaction on the inequitable distribution of teacher talent. Congress required each state to develop a plan to measure and address the disproportionate assignment of unqualified, inexperienced, and out-of-field teachers to poor and minority students. The Department has never issued regulations or guidance detailing what those plans should include, nor have they ever asked states to produce such plans, or even reminded states of these obligations. (109hhrg23691, Table A.26)

As we have discussed previously, provisions that counter natural human tendencies and desires, as well as deep-rooted traditions, will face opposition. The way that federal education reform intends to work is that the federal government through the U.S. Department of Education acts on the states and the states in turn direct the

LEAs. However, the states and LEAs have their own education policies, rules, and standards, and the whole system is never properly aligned, not even considering the differing and opposing interests of the parties in this 3-tiered system. With respect to removing the inequalities in teacher quality the only *tactic* that would be effective is to have a uniform statewide employment compensation scheme (*calculation*) with adjustments for ‘difficult’ schools. However, I have not found in the documents that I have analyzed anything that goes beyond ‘incentives,’ ‘grants,’ ‘awards,’ or ‘encouragements’ as well as ‘options’ and ‘discretionary.’ See for example the following excerpts

Recently, for the first time in the four-year history of NCLB’s implementation, the U.S. Department of Education required states to develop equity plans to ensure poor and minority students get their fair share of teacher talent. And Congress has encouraged innovation in teacher assignment, evaluation, and compensation by creating the Teacher Incentive Fund. These are important steps, but raising teacher quality and ensuring equal access to effective teachers must remain a bipartisan priority. (Kati Haycock, Director, The Education Trust, 109hhrhg28839, 2006-07-27, Table A.32)

Answer. The Administration is requesting \$500 million for the Teacher Incentive Fund initiative to allow States and school districts to develop and implement innovative ways to provide financial incentives for teachers who raise student achievement and close the achievement gap in some of our Nation’s highest-need schools, to attract highly qualified teachers to those schools, and to redesign teacher compensation systems in order to align pay with performance. (Margaret Spellings, 109shrg49104171,

2005-03-02, Table A.45)

Under the formula component of the initiative, the Department would provide grants to SEAs by a formula. States would use these funds to give monetary awards to: (1) teachers who raise student achievement or make significant progress in closing the achievement gap among groups of students; and (2) highly qualified teachers who agree to teach in high-need schools. (Margaret Spellings, 109shrg49104171)

Answer 7. Improving teacher quality for all students is essential to achieving the vision of No Child Left Behind. It is especially important to ensure poor and minority students are taught by effective teachers. I stand with President Bush in supporting the Teacher Incentive Fund, giving States extra resources to provide monetary incentives for high quality teachers to teach in the schools that need them the most and reward schools and teachers that are eliminating the achievement gap. (Margaret Spellings, 109shrg97751, 2005-01-06, Table A.48)

It is long past the time to move on from the anachronistic single-salary schedules that treat teachers as if they are assembly line workers instead of professionals. Teachers who take on greater responsibility, and teachers who are more successful, should be able to distinguish themselves within the profession. Given that the most acute need for better teachers and experienced mentors is in high-poverty, Title I schools – and that these schools have languished without appropriate assistance in recruiting and retaining the strongest faculty – it is entirely appropriate for Congress to create these incentives for innovation. It is important to keep in mind that none of these incentive programs are mandatory; they simply are

being made available to states and local districts that are ready to try something new to help their students succeed. If we are serious about closing the achievement gap, we cannot leave these strategies off the table. (Kati Haycock, President, the Education Trust, 110hhr37638, 2007-09-10, Table A.60)

However, the suggestions for solving the teacher quality gap are more in line with a *disciplinary régime*. See for instance

In 2001, Congress recognized that the teacher quality gap was a major cause of the achievement gap when it debated and amended the ESEA. Significantly, Congress enacted provisions not only requiring that all teachers be “highly qualified” by this last school year, but also compelling both states and districts take immediate steps to close their teacher-quality gaps. (Dianne M. Piche, Executive Director, Citizens’ Commission on Civil Rights, 109hhr29626, 2006-08-28, Table A.33)

The Bush Administration has signaled its intention to make a mid-course correction and, under Secretary Spellings, has begun to devote serious attention to NCLB’s teacher quality provisions. Halfway through 2005, the Department finally began taking action to enforce the teacher quality provisions of the law, including the teacher equity provision that had been all but ignored in previous years. The Department’s actions included publishing expanded policy guidance, signaling states that compliance with these provisions is required, and – more controversially – giving states that had made a “good faith” effort to comply with the law an extra year to meet the law’s goals. (Phyllis McClure, Dianne Piche and William L. Taylor, 109hhr29626)

The Department of Education should immediately publish the state plans submitted this week on its website, www.ed.gov. The Secretary and her staff should carefully evaluate the likely effectiveness of each state's plan detailing how they say they will address the teacher quality and equity provisions of the law during the upcoming year. (Dianne M. Piche, 109hhr29626)

States are also required to establish measurable objectives for each LEA and school that, at a minimum, shall include an annual increase in the percentage of highly qualified teachers in each LEA and school to ensure that all teachers teaching in core academic subjects in each public elementary and secondary school are highly qualified not later than the end of the 2005-06 school year. (Phyllis McClure, Dianne Piche and William L. Taylor, 109hhr29626)

Although States and school districts are making significant progress in meeting the HQT [highly qualified teacher] requirement, there is still a lot of work to do to ensure that each State can meet the goal that every child is taught by a highly qualified teacher by the end of the 2005-2006 school year. (Margaret Spellings, 109shr27036, 2006-03-01, Table A.41)

We will also be looking very carefully at States' efforts to report accurately HQT data this spring and summer when we review their progress in meeting the requirement that all teachers of core academic subjects be highly qualified by the end of the 2005-2006 school year. After that review, we will likely require many States to submit revised State plans, and we may take corrective actions against any States that are not making a good-faith effort to improve their data collection and reporting. The De-

partment also plans to begin a new round of State monitoring visits late this summer. (Margaret Spellings, 109shrg49104190, 2006-03-01, Table A.46)

It also enforces NCLB's teacher equity provisions by making ESEA funding contingent on states' compliance with their plans to make sure poor and minority children have equitable access to high-quality teachers. (George Miller, 110hhr34990, 2007-05-11, Table A.56)

And by eliminating the so-called High Objective Uniform State Standard of Evaluation (HOUSSE) exception to the guarantee that all students be taught by a highly-qualified teacher, the draft closes a loophole that many states have used to avoid addressing the fact that many students – disproportionately low-income and minority students – are taught by teachers without sufficient training or content knowledge in their field. (Kevin Carey, Policy Manager, Education Sector, 110hhr37638, 2007-09-10, Table A.60)

However, the law's strict and punitive nature has discouraged new teachers from entering the field and has made it difficult to retain quality teachers with advanced degrees. Additionally, the focus on testing has been a great disservice to our children and populations of students are being left behind. (Phil Hare, Democratic Representative Illinois, 110jhr33757, 2007-03-13, Table A.68)

In the rare case that the *apparatus of security* is applied the results are positive

Such teacher reforms began paying off early on. After Connecticut's \$300 million 1986 initiative, for instance, the higher salaries and improved pay

equity, combined with the tougher preparation and licensing standards and an end to emergency hiring, swiftly raised teacher quality. An analysis found, in fact, that within 3 years, the State not only had eliminated teacher shortages, even in cities, but also had created surpluses (Connecticut State Department of Education, 1990). Even as demand increased, the pool of qualified applicants remained solid. A National Education Goals Panel report (Baron, 1999) found that in districts with sharply improved achievement, educators cited the high quality of teachers and administrators as a critical reason for their gains and noted that “when there is a teaching opening in a Connecticut elementary school, there are often several hundred applicants” (p. 28). (Linda Darling-Hammond, Stanford University, 110shrg34052, Table A.71)

The results of the text mining of the Presidential documents show an association between the term ‘teacher’ and the terms ‘incent’ (0.37), ‘reward’ (0.36), ‘bonus’ (0.29) and ‘merit’ (0.21, Table 5.3). Other terms are also related to the incentives given to teachers, such as ‘forgiv’ (0.27) and ‘loan’ (0.22), which refer to student loan forgiveness for new teachers. Other closely associated terms refer to teacher quality and certification, ‘qualifi’ (0.20) and ‘certifi’ (0.19). Notice that the highest association is with the incentives instead of with the regulatory terms.

The Congressional hearings present a somewhat different situation. The term ‘qualified’ (unstemmed) ranks 46 in frequency (Table 4.28). The table of associations shows the inverse of the Presidential documents, in the sense that terms associated with regulatory terms are more closely associated to the term ‘teacher’ than terms that denote incentives (Table 5.4, p. 286). To the first group belong ‘qualifi’ (0.48), ‘high’ (0.39), ‘qualiti’ (0.31), ‘veteran’ (0.25), ‘certif’ (0.24), ‘subject’ (0.23),

Table 5.3: Presidential Documents - Terms Associated with “teacher”

teacher	incent	reward	bonus	outstand	forgiv	certif	train
1.00	0.37	0.36	0.29	0.28	0.27	0.26	0.26
bus	loan	administ	classroom	disburs	evalu	merit	volunt
0.24	0.22	0.21	0.21	0.21	0.21	0.21	0.21
dig	qualifi	certifi	factor	pocket	princip	provid	
0.20	0.20	0.19	0.19	0.19	0.19	0.19	

‘experienc’ (0.20), ‘inexperienc’ (0.20), ‘requir’ (0.19), ‘certifi’ (0.18), ‘houss’ (0.18), and ‘uncertifi’ (0.18). Terms in the second group are ‘salari’ (0.23), ‘attract’ (0.22), ‘recruit’ (0.21), ‘incent’ (0.20), ‘reward’ (0.19), ‘shortag’ (0.18), and ‘turnov’ (0.17). The stemmed term ‘houss’ derives from the acronym HOUSSE, “High, Objective, Uniform State Standard of Evaluation” (see page 11 of NCLB Toolkit for Teachers by the U.S. Department of Education, <http://www2.ed.gov/teachers/nclbguide/nclb-teachers-toolkit.pdf>).

Table 5.4: Congressional Hearings - Terms Associated with “teacher”

teacher	qualifi	teach	high	qualiti	effect	taught
1.00	0.48	0.43	0.39	0.31	0.26	0.26
certif	classroom	profession	profess	salari	subject	attract
0.24	0.24	0.24	0.23	0.23	0.23	0.22
recruit	distribut	experienc	incent	train	assign	requir
0.21	0.20	0.20	0.20	0.20	0.19	0.19
reward						
0.19						

5.2.8 Subsection Summary

In this subsection we have looked at the policy approaches to the AGs through the lens of the first dimension of Foucault's governmentality. The first observation we made was that we could employ three of the components of this dimension, the *procedures*, *analyses and reflections*, and *calculations and tactics* to model the growth in complexity of the government's approach to the AGs and especially its federalization. This process can be represented by an outward moving spiral as shown in Figure 5.39.

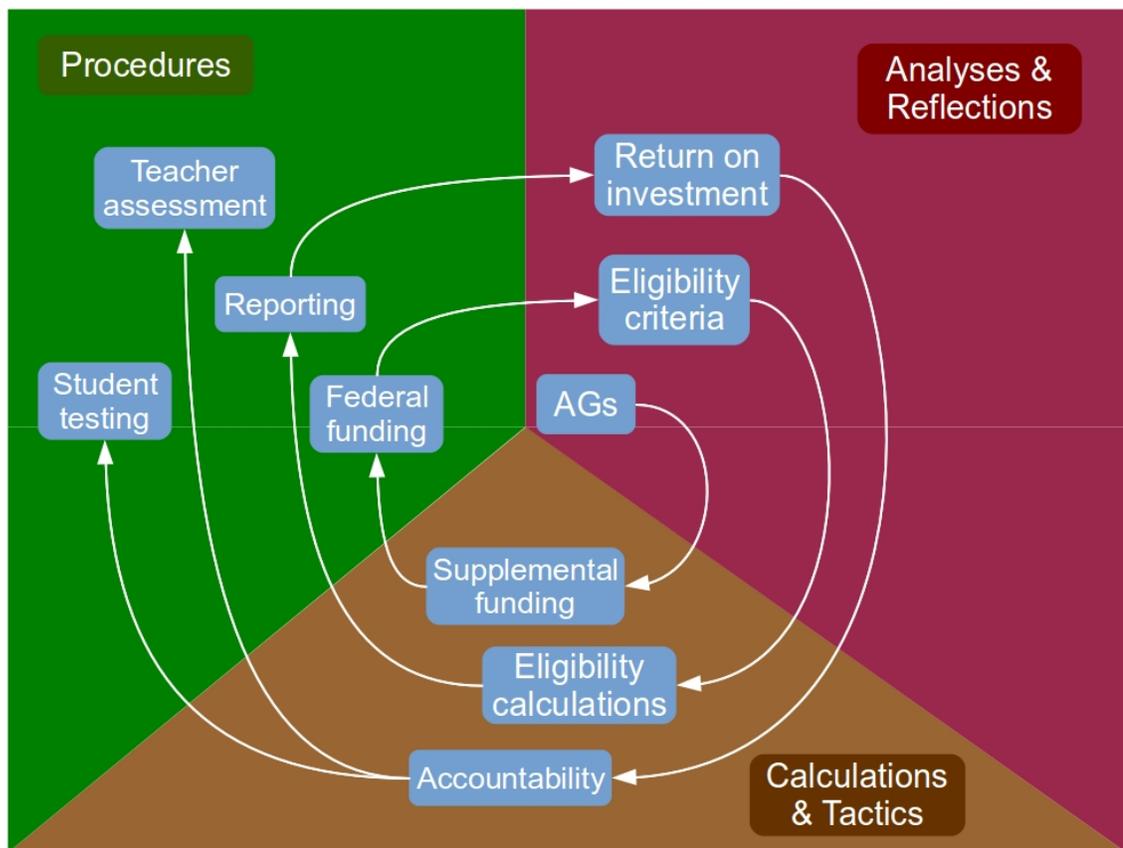


Figure 5.39: The Ensemble - The Governmentality Spiral

The *tactic* of supplemental funding for poor schools was instituted based on the *reflection* of the existence and negative social and economic effects of the achievement gaps. The *procedure* of federal funding was instituted and the *analyses* for eligibility had to be established and then calculated. The process needed the establishment of reporting *procedures*, which created a wealth of data that allowed the *analysis and reflection* of the return on investment of this federal funding, which engendered, under the influence of neoliberal principles, the *tactic* of accountability, which demanded the establishment of elaborate *procedures* of student assessments.

The student assessments were but a starting point of an avalanche of other processes. The “Adequate Yearly Progress” was calculated, and schools were declared to be in need of improvement. The *calculation* of the AYP incorporates the *tactic* of dis-aggregation, which is the calculation of achievement data according to an income, language proficiency, racial, and ethnic classification as established by the states. This type of calculation is obviously a required by the *analysis and reflection* of the achievement gaps. If a school was deemed not to have fulfilled the requirements of AYP it was classified as “needing improvement,” and this status would activate several *procedures* as can be seen in Figure 5.40.

Schools and local education agencies reacted by requesting modifications to NLCB. The generic term for this request was “flexibility,” which was a term often present in the speeches by President Bush. Among these modification was the request to adopt “growth models,” a more complex form of AYP *calculation*.

Then we looked more carefully at the *Analyses and reflections* by noticing that the awareness of the AGs and the acknowledgement of their importance has occurred gradually over time. We had a shift in the understanding of social justice in the public school system where we started with ‘equal access,’ that then widened its reach to ‘equal resources,’ and reached the concept of ‘equal academic outcomes’

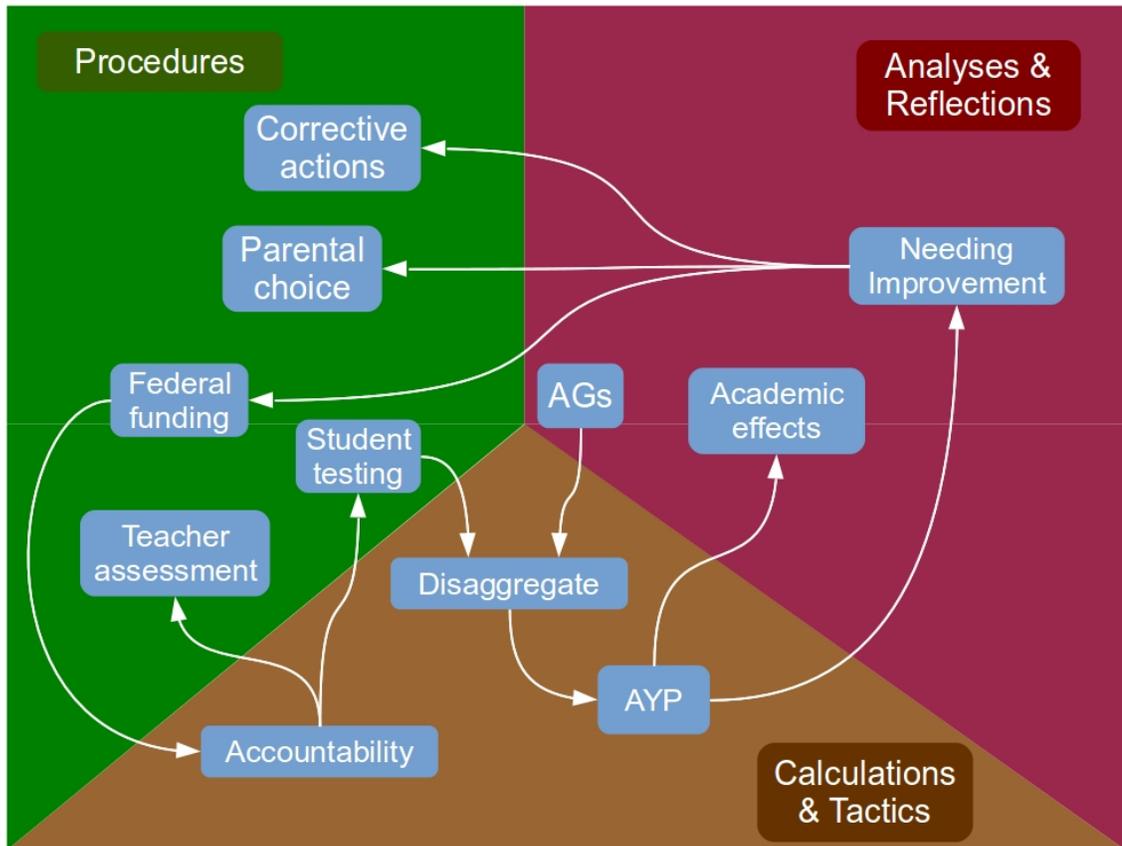


Figure 5.40: The Ensemble - Accountability and its Effects

today. Hence, the unequal academic achievements aggregated by income level, or an ethnic/racial classification were problematized.

Another shift in *analysis and reflection* has been from an understanding that the AGs were caused by the social environment where the schools operated, to the understanding that the problems were ‘internal’ to the schools themselves, such as the low expectations of the teachers with respect to certain groups of students.

The connection between the academic achievement of the general population, especially in math and science, and the economic well being of the nation is a relatively

recently phenomenon. Previously, this connection was only made for a particular section of the population. The concern was that there should be enough mathematicians and scientists to sustain the economy and the military-industrial complex, but no attention was given to the totality of the national student body. Concomitantly there was a shift from success in school as a social justice concern to an juxtaposition of academic achievement and the position of the nation's economy in an increasingly more perilous global environment.

Education research, however, has shown that this connection is tenuous at best. For instance Gerald Bracey (1998) quoted Lawrence Cremin (1990) who wrote in his *Popular Education and Its Discontents*

American economic competitiveness with Japan and other nations is to a considerable degree a function of monetary, trade, and industrial policy, and of decisions made by the President and Congress, the Federal Reserve Board, and the Federal Departments of the Treasury, Commerce and Labor. Therefore, to conclude that problems of international competitiveness can be solved by educational reform, is not merely utopian and millennialist, it is at best a foolish and at worst a crass effort to direct attention away from those truly responsible for doing something about competitiveness and to lay the burden instead on the schools. (p. 69)

More recently education research done by Chen and Luoh (2010) unlinked the perceived connection between test scores in mathematics and science and the quality of the labor-force.

We have also traced the *analysis and reflection* of the need for student assessment at a national level. It was connected to the *tactic* of accountability. It was presented

initially as a tool that schools should use to improve their teaching and thus help students. Once the practice had become established and began to influence the teaching practice and the AYP rankings were made public and “corrective actions” became more widespread, it became a subject of controversy.

We then looked at the *analysis and reflection* of the imposition by law of “research-based education practices.” Impression was given that the teaching practices at schools were driven by tradition at best and fads at worst. The policy discourse reflected a low opinion of the professional standing of the teachers. Often mention was made of the widespread use of non-certified and out-of-field teaching, especially in ‘difficult’ schools. We also remarked that the reforms themselves were not based on any education research and were rather ideologically driven.

The AGs could have never reached the importance that they have based only on anecdotal evidence. It needed the solid evidence provided by the statistical *calculations* of student achievement data. However, these *calculations* became a battlefield once NCLB made them a central feature of education law. We looked at the controversies on who should be included or not in these calculations, e.g. students with special needs and ELL students. Sometimes the issues were about ‘arcane’ statistical concepts such as the N-size and the how to calculate the confidence intervals.

Traditionally it was the schools and school districts what determined the content of the curricula. These local standards have come under attack by those who, based on an *analysis and reflection*, considered them not sufficiently rigorous for some students and thus contributing to the AGs. Initially the *tactic* of state curricula common to all students was advocated, and once this tactic was established the next step of federalization of education consisted in the “voluntary” creation of a national common curriculum.

During the period of time that we are examining an *analysis and reflection* has

slowly become more and more incisive and now has become the most controversial aspect of school reform. This is the issue of teacher assessment and associated punitive actions culminating in their dismissal. We looked at the connection between achievement *calculations* that would track individual students through time and thus allow to match their progress to individual teachers and the heated debates about the use of these data. The usual rhetorical pattern was to introduce any type of assessment or measurement, for students, teachers, or schools as a diagnostic tool. Then, once established as a ‘normal’ *procedure* it would be used as any other business tool to ‘separate the wheat from the chaff.’

We discussed the Foucaultian definition of *population* as the target of all previous *procedures, analyses and reflections, and calculations and tactics*. The cornerstone of a neoliberal form of government and social intervention is the use of market forces. NCLB modified ESEA by introducing mechanism in the federal funding of schools that would open them to some form of free market through the implementation of the *procedures* of parental choice and the reporting of school evaluations. However, we have seen that these implementations were quite timid and thus had negligible effect, and have been superseded by the recent rise and popularity of the charter schools.

We have noticed a policy discourse shift when referring to the student population. The target students of ESEA were those of poor families, but later legislation (NCLB) introduced racial and ethnic categories.

There are several research papers on the AGs where poverty versus race or ethnicity is mentioned (Garrett, 2009; S.-Y. Lee et al., 2009; McMahon, 2011), or is even a variable in the research project (Chatterji, 2005; Hallinan & Kubitschek, 2010; Jordan & Cooper, 2003; Long et al., 2009).

According to Foucault the *major form of knowledge* of governmentality is “polit-

ical economy.” Governments had to place the national economy at the centre of its activities because of the competition between nations. Basically the ‘economy’ is the ‘policy.’ In the West questions of ethics, justice, religion, and ideological principles were trumped by the principles of (free) economy. History has many examples of managed economies that have failed, from the “Edict on Maximum Prices” of the Roman Emperor Diocletian (301 CE), to mercantilism, and finally communism.

Public schools do not operate by design according to the principles of the free market system, but rather to what Foucault denotes a “régime of discipline.” Hence, the application of market mechanisms to the public schools system, such as parental choice, will create internal contrasts and tensions because it is not an organic system, but simply a juxtaposition of two incompatible and contradictory components.

We have seen how it has become a *form of knowledge* that the public school system is a component of the economic machinery of the nation by preparing and training the next workforce. The closing of the AGs, both national and international, are placed in the context of the U.S. economy and its international standing. The reach of NCLB was extended to from the elementary and middle schools to high school, and the AGs discourse began to include the high school “dropout crisis.”

The final item of the first dimension of governmentality that we examined was the *apparatuses of security* (AoS). We looked at the structures and characteristics of these “apparatuses” in some detail. The converse of the AoS is the “régimes of discipline” (RoD), and we also looked at their characteristics. In reality complex systems, such as public schools, their administration, and especially education policy, have properties that recall both extremes, and thus should be placed on a continuum that spans between these two poles.

With that in mind, I tried to map the components of the AG discourse to the AoS - RoD continuum (Figure 5.41).

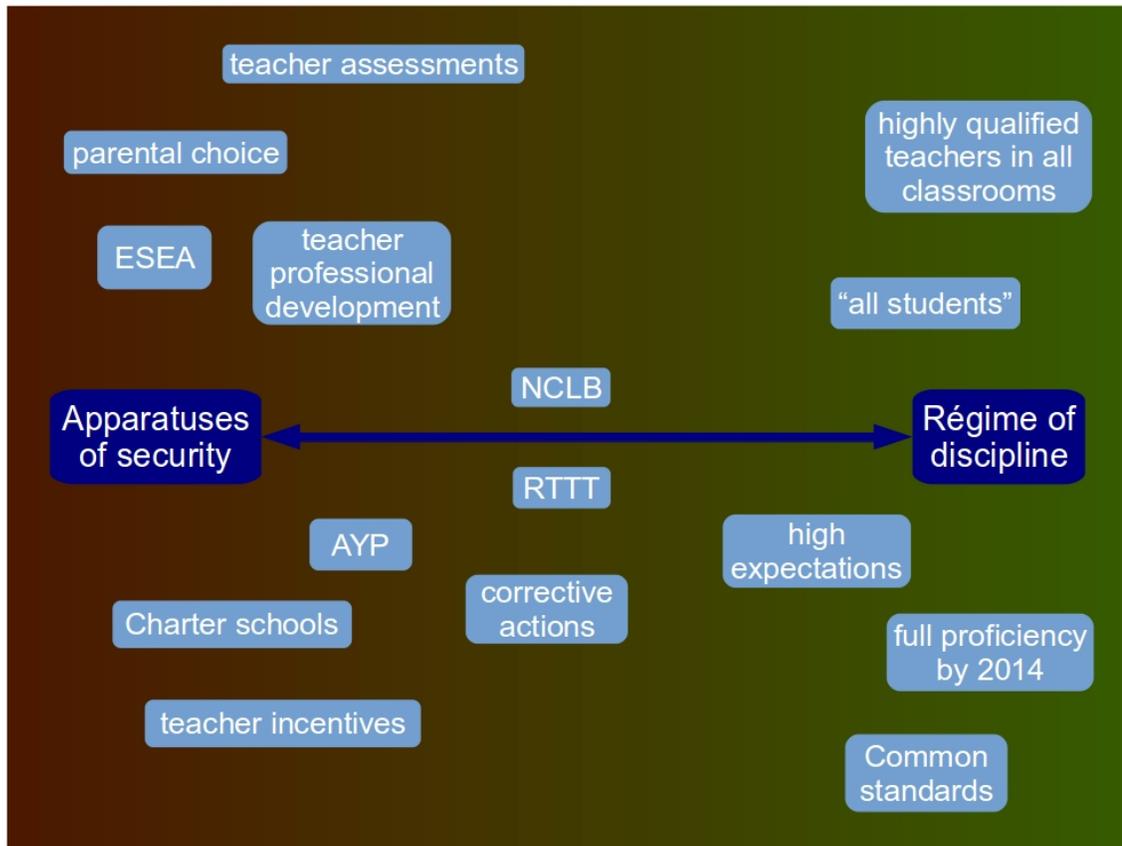


Figure 5.41: “Apparatuses of Security” versus “Régime of Discipline”

Here we examined ESEA and we concluded that it fits more closely an AoS than a RoD. Then we saw how the in the education discourse the term “all students,” or variations thereof became relevant and how it changed from “equal opportunity” (still a AoS) to “equal achievements” (a RoD).

The shift was gradual until the point that NCLB was instituted, going through statements about “common standards,” “high expectations,” and “professional development” of all teachers. However, with the passing of NCLB a complex system of *procedures* and *calculations* was instituted, where some could be classified as RoD

and others as AoS. We discussed in some detail the reason for this internally inconsistent school reform and the seeds of its inevitable failure, as Foucault would have predicted.

A large part of the policy discourse after the implementation of NCLB was, among many other issues, about conflicts that would arise from the unnatural joining of AoS with RoS. I have provided many examples that illustrate this conflict here above.

I would like to conclude this summary by stating that whether the above mentioned *procedures, analyses and reflections*, and *calculations and tactics* have had a beneficial impact on the AGs is not an issue in this analysis. However, it has been the subject of education research. For example J. Lee and Reeves (2012) concluded that the narrowing of the AG was more closely associated with “long-term statewide instructional capacity and teacher resources rather than short-term NCLB implementation fidelity, rigor of standards, and state agency’s capacity for data tracking and intervention.” Thus measuring does not necessarily, at least in education, solve a problem. It may do so in business where people can be hired and fired, lines of business can be initiated or terminated, but education works along different lines. A school is more similar to a hospital, or, alas, a prison than to a business or factory.

5.3 The Tendency

The second dimension of Foucault's definition of *governmentality* refers to the tendency of the **government to become pre-eminent** over other forms of power. This process is actualized by the formation of **governmental apparatuses** and the development of a "whole complex of savoirs" (Subsection 2.4, point 2 and Foucault, 2009, p. 108).

We discussed the forms of power (sovereignty, discipline and governmentality) in the previous subsection (5.2, and in more detail in Subsubsection 5.2.7). We can note that in the United States the public schools have become an integral part of the government structures, initially at local-state level and now at the federal level. The formation of governmental apparatuses will be discussed in the following subsection (5.4). The old disciplinary régime of the schools, a form of extension of the family régime of discipline, while still existing, is hidden under the accumulation of successive layers of *procedures*, *calculations*, and *tactics*. Thus, here I would like to discuss the "complex of savoirs" as associated with the policy discourse on the achievement gaps and the tension between the governmental and sovereignty forms of power in the public school system.

Here is not the place to give an exposition of what Foucault means with "savoir." However, I will give, based on the sources that I have consulted, my understanding of the term.⁶² First of all, the French term is translated into English as "knowledge" and is distinguished from "connaissance," a term that Scheurich and McKenzie (2005) denoted as "formal knowledge." The term "connaissance" indicates knowledge in its external, codified, objective form. This form of knowledge is internalized, 'embodied' in the persons that apply it in their personal lives and through this internalization practice in society at large with all its complex social interactions. "Savoir" allows

us to function as social beings.

A second aspect of the term is its connection to “pouvoir,” power in English. According to Michel Foucault these two terms are closely connected. While modern society still partially operates according to fear and intimidation (e.g. the obedience of speed limits through the imposition of traffic violation fines), a socially adjusted person is not supposed to operate this way. We consider a person that does not steal or murder simply because of fear of the justice system at best a potential criminal and at worst a dangerous sociopath. We all operate according to certain norms because we all “know” that it is the proper way to live in society. Similarly, we “know” that in a just society we are all equal in front of the law, that each of use has the right to keep their property and to live in peace. This knowledge tells us what is acceptable or not and places us in a complex system of power relations.

The third and last aspect of knowledge-power is its change over time. Foucault divides the history of the West into epochs and associates with each one of them a different understanding of the world and society with its own type of knowledge and power. In this subsection I try to show from the chronologically arranged source data that I have collected on the AGs how the understanding of the causes and remedies of this phenomenon has gradually shifted.

Returning to the statement of the second dimension of Foucault’s *governmentality* and in light of the above brief exposition of the concept of knowledge-power, I would like to explore here the policy discourse on the AGs.

First of all we should ask ourselves what the source of power and authority of the schools is. Unlike Europe where schools were instituted by the churches first and national governments later, the schools in the U.S. were instituted, funded, and controlled by local families. They were almost an extension of the family model, and the school teachers and principals derived their authority (sovereignty) directly from

the families, and thus the students were expected to be disciplined as children in a family would be (Foucault, 2009, p. 107).

Hence, it is this local and family based structure of the public school in the U.S. that contains the germ of the achievement gaps. There is no equalizing force within the state and even less at a national level that could create a uniform school environment. No one then would have considered this situation anything but obvious outcome of the normal, if not natural, variability existing in society. Just as it was accepted and understood that there were differences in income and property there were differences in educational achievement. In the absence of statewide or even national curricula and assessments there were no *tactics* and *calculations* to even become aware of the situation. In other words, no one would have called it a “gap.” The introduction in the public discourse of the term “gap” is the result and cause of the problematization of the differences in academic achievement.

In the following subsection (5.4) I describe more fully how the public school system becomes progressively more and more administratively complex. Here I would like to point out that the discourse on the AGs could have only emerged in a governmental environment and could not have arisen in any other sort of power structure. Only as far as the schools are integrated into the administrative state and become in successive steps incrementally controlled by government apparatuses and subject to the laws and regulations of the states and of the nation, is the discourse on the AGs possible and intelligible.

The earliest reference to the AGs in my sources is dated 1997-01-23 (105shrg39641, Table A.5, Figure 5.42). During this Senate hearing, Orlando L. Taylor, Dean at Howard University (a HBCU in Washington, DC), said

Mr. Chairman and Distinguished Members of the Subcommittee: Let me

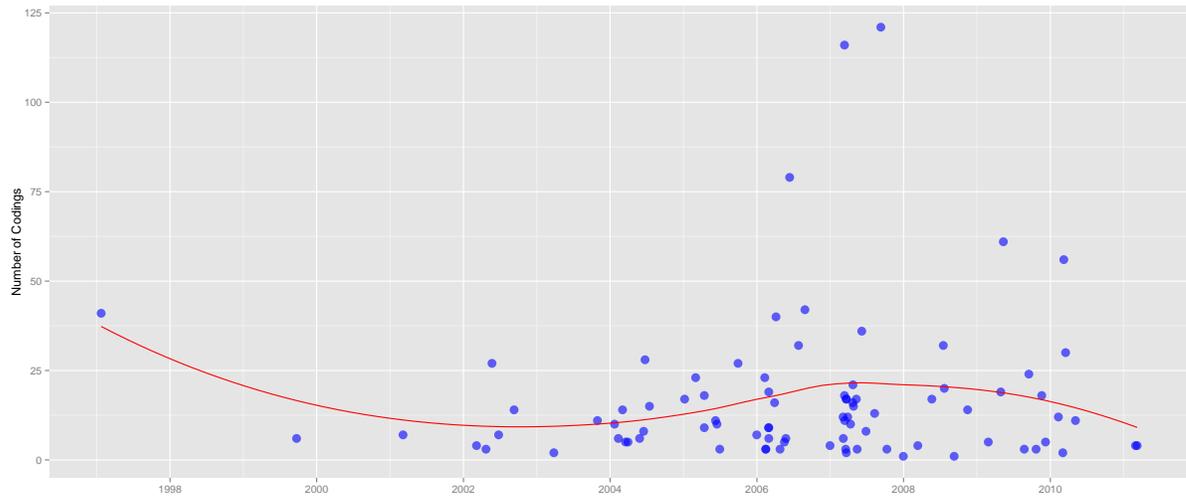


Figure 5.42: Congressional Hearings - EducGap

begin by thanking you for having the foresight to schedule a special hearing on language issues and academic underachievement of many of our nation’s African-American children. I am honored to have been invited to present testimony on this very important subject. To my knowledge, this hearing is the first that the Congress of the United States has ever called specifically to address this issue.

This thus may have been the first time that the racial achievement gap has been discussed at the national level. However, the international achievement gap had already entered the public consciousness with the Sputnik crisis (4 October 1957). In reality the problem was entirely manufactured. Indeed, the U.S. had a satellite ready for launch already in September of that year. At any rate, on 17 March 1958, just a few months later, the U.S. placed the Vanguard TV-4 into orbit. Unlike the Sputnik, this satellite is still in orbit today. There was no technological superiority of the U.S.S.R. over the U.S.. There was however at that time a shortage

of mathematicians. Hence the National Defense Education Act (NDEA) was passed the next year on 2 September 1958. Most of the funding provided by the law would be spent on higher education for mathematics and engineering students. NDEA was successful and its objectives were attained. Such cannot be said about successive federal education legislation.

We may be able to make some interesting observations regarding the success of NDEA in relation to the AGs and governmentality. One observation is that the law acted on a population by appealing to the natural desires of its members and that the intended outcome was defined in a general, statistical way and not an absolute one. The target of the law was gifted students who had a desire to enter into what we call today STEM fields of study, but could otherwise not have done so for financial reasons. NDEA specifically prohibited the federal government to interfere with state and local curricula and standards. As shown in Subsubsection 5.2.7, NDEA can be considered a premier example of a Foucaultian *apparatus of security*.

However, there was an ‘adjustment’ in the “complex of savoirs.” Up till now the federal government did not have to concern itself with the technical and academic skills of the population, it simply was not an issue. Immigration would compensate for any deficiency in the school system or academia. The arms race during WWII first and the Cold War afterwards caused an unprecedented demand of mathematicians, engineers, and scientists. Thus, the quantity and quality of a highly skilled workforce entered the policy discourse. It became part of the “complex of savoirs.”

The following piece of federal legislation that I would like to examine with regard to the second dimension of governmentality is the Elementary and Secondary Education Act of 1965 (ESEA). This act was part of the “War on Poverty” by President Lyndon B. Johnson and has to be understood in the context of a period of profound social unrest. During that time it was realized that extreme poverty and discrimina-

tion could not be ignored or accepted anymore as a natural aspect of society because of their dangerous repercussions for the whole of U.S. society. The target of the War on Poverty was people that had never been part of the active and productive labor force, but were people with no hope and prospects in even a well-functioning U.S. economic system. The only way to protect society was to intervene to reduce extreme poverty. There was no other alternative because the option of not doing anything did not exist anymore. As ESEA itself specified in its declaration of policy “In recognition of the special educational needs of children of low-income families . . .,” the reduction of poverty as a federal duty became part of the “complex of savours.”

What I find distinguishing about ESEA is that the funding does not go directly to its intended target. It is not distributed to the parents of the “children of low-income families,” a situation unlike NDEA where at least part of the funding went to the students themselves as tuition assistance. The reason is that higher education operates in a ‘market’ while public education does not. This situation creates according to the principles of governmentality an inefficient situation that requires more and more interventions that are based on a ‘régime of discipline.’

Of course this is not the first time that the federal government had decided to intervene on behalf of the poor. It did so during the “New Deal.” However, I think that here there is a difference. The poverty that the New Deal intended to combat was caused by an imperfect application of the capitalistic system. There was an unbalance, an unhealthy regulation of businesses, banking and investments. In addition there was an agricultural system that was inappropriate for the climate and soil of the Midwest. Hence, these were structural problems that could be resolved within the framework capitalistic society. Indeed productive, healthy, and skilled workers lost their jobs for no fault of their own. It is interesting to note that school

reform was not part of the New Deal even though there were some job programs for unemployed teachers. Obviously, it was recognized that the economic crisis was not caused by the school system. As we see in this section, about seventy years later it became instead part of the “complex of savours” that schools, if not cause, certainly contribute to the economic malaise of the country.

During the 1980s and 1990s several of the programs instituted by the “War of Poverty” were dismantled (Payne & Biddle, 1999). On 22 August 1996 President William Clinton signed into effect the “Personal Responsibility and Work Opportunity Act” that as the president himself said “end[ed] welfare as we know it” (Carcasson, 2006). About three years later, on 21 May 1999, the president sent to Congress his proposal for the re-authorization of ESEA titled “Educational Excellence for All Children Act of 1999.” It would not pass, but was very similar to the soon to come NCLB (Subsubsection 5.2.5). An excerpt from the president’s message to Congress accompanying this proposal reads

Fourth, in response to clear evidence that standards-based reforms work best when States have strong accountability systems in place, my proposal would encourage each State to establish a single, rigorous accountability system for all schools. The bill also would require States to end social promotion and traditional retention practices; phase out the use of teachers with emergency certificates and the practice of assigning teachers “out-of-field;” and implement sound discipline policies in every school. Finally, the bill would give parents an important new accountability tool by requiring State, district, and school-level report cards that will help them evaluate the quality of the schools their children attend. (WCPD-1999-05-31-Pg964, Table 4.2)

The concept of **accountability** is mentioned twice in this quote. How can we understand this concept, this *reflection and analysis* that now enters the **complex of savoirs** of federal education policy? One is accountable “for something to someone.” Usually in a contract something of value, usually money, is given for the delivery of a service or a product. The product or service has to correspond to certain characteristics as specified in the contract. In addition, it has to be delivered at a certain place and time. Likewise payment has to be in the correct amount and delivered by the agreed on deadline.

However, teachers and staff are employees of a school district and operate according to an employment contract. The above quote mentions states and parents, but the teachers and staff are under no contractual obligation with either of them. Thus, they should be accountable to the school districts and no one else. Are the school districts themselves accountable to the parents and or the states? The answer is yes, to a certain degree. Most school districts have elected boards and have some contractual or legal obligation towards the states. With this in mind let us analyze the system of accountability requested by this act and implemented when NCLB was signed in January 2002 in light of governmentality and the achievement gaps.

I would like to make the following observations, (1) up to the passing of NCLB there was no legal requirement to close the AGs, (2) the NCLB accountability system tried to bring market forces into the school system, (3) due to the structure of the public school system, the market forces cannot properly operate in the public school system, and (4) there is an inherent contradiction between the intent of the school reform, the *tactics* of schools reform, and the structure and culture of the public school system.

Point (1) is quite straightforward and discussed repeatedly in this section. Regarding points (2) and (3), the publication of school results (i.e. AYP), the informa-

tion of the parents, and the collection and statistical analysis of the assessment data that is transmitted to the states and federal government creates a chain of accountability that is orthogonal to the structure of the school systems. The people of the school district elect a board, this board hires a superintendent and the superintendent through the staff at the school district hires the teachers and principals. As we can see, there is only one market force operating in this chain of responsibility, the package of salary, benefits, and working conditions offered by the school board to the superintendent, and by the school district to school faculty and staff. This and only this determines the quality of teachers in a school district and their turnover. Everything depends on the work conditions offered by the school districts. All other state, federal or private interventions on teaching colleges, teacher appreciation and professional development are at best complementary, and, more realistically in the grand scheme of things, negligible.

Another *tactic* employed by NCLB to bring market forces to bear in the public school system is school choice (Figures 5.43 and 5.44). However, the public school system operates in a system of monopoly or at best oligopoly. There are school district boundary restrictions as well as issues of availability of transportation and tolerable commuting time.

Thus summarizing we can state that, based on governmentality, the intention by NCLB to introduce market forces was bound to be ineffective and resulted in the imposition of another set of bureaucratic burdens on the teachers and the schools that worsened the working conditions of the teachers and thus worked **against** the market forces that were meant to bring into the schools the best available teachers.

Dr. Linda Darling-Hammond calls this phenomenon a “dysfunctional consequence” of NCLB. For instance she said during a House hearing on 2007-05-11

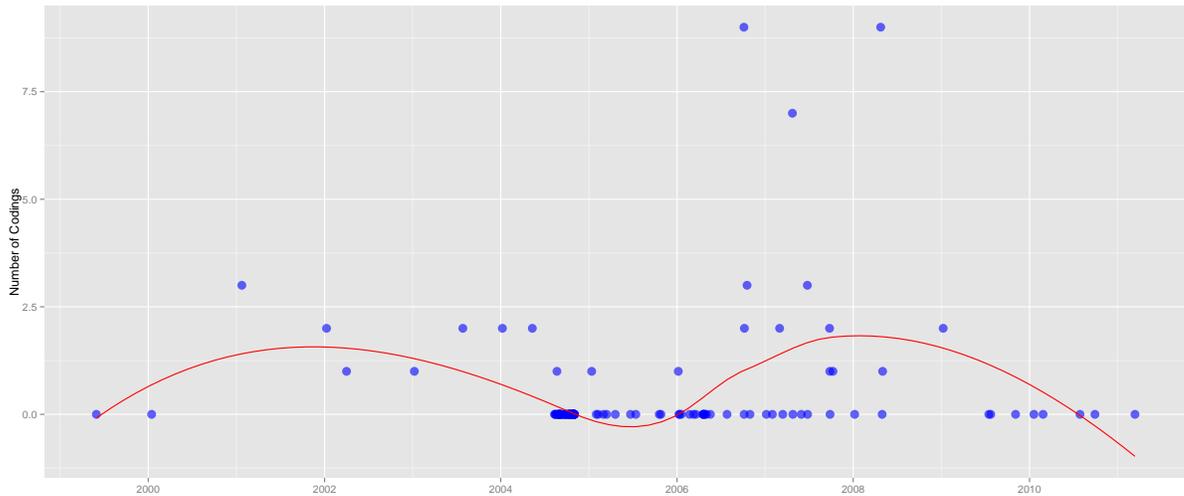


Figure 5.43: Presidential Documents - SchoolChoice

As has occurred in many states with high stakes-testing programs, students who do poorly on the tests – special needs students, new English language learners, those with poor attendance, health, or family problems – are increasingly likely to be excluded by being counseled out, transferred, expelled, or by dropping out.

This kind of result is not limited to education. When one state decided to rank cardiac surgeons based on their mortality rates, a follow up investigation found that surgeons' ratings went up as they stopped taking on high-risk clients. These patients were referred out of state if they were wealthy, or were not served, if they were poor. (110hhr34990, Table A.56)

Carrying the medical analogy a little further, would it be fair to judge a hospital and its staff according to whether or not **all** the patients got cured? No physician would accept being held accountable to such a standard. However, that is exactly

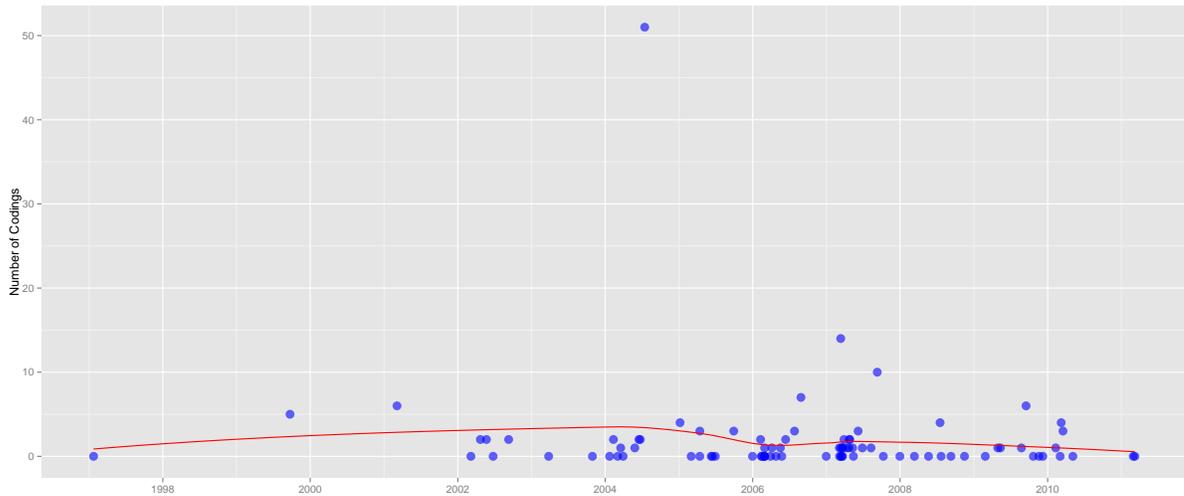


Figure 5.44: Congressional Hearings - SchoolChoice

what the states and the federal government are asking the teachers. We can and should demand that a hospital follow sound medical procedures and be staffed by competent people. However, it would be eminently unfair, and thus counter productive, to demand that all patients admitted to the hospital leave completely cured after a certain period.

Thus, we could ask ourselves why are schools asked to operate in such a dysfunctional situation? According to the principles of governmentality of Foucault I understand this situation as the incomplete and inconsistent application of “government” in a system that still operates and is asked to operate in a *régime of discipline* rather than as an *apparatus of security*.

Subsection summary

In this subsection we have revisited some of the concepts that were discussed in the previous subsection, such as accountability, federalization, the proliferation of governmental structures, and the use of market mechanisms in school reforms that aimed to reduce or eliminate the AGs. We did so under the light of the second

dimension of Foucault’s governmentality. This definition hinges on the concept of “complex of savoirs.” We thus created a chronological narrative in which we observed the arising and evolution of the concept of achievement gap(s) in the public education policy discourse. The school system started as a ‘local’ enterprise and has been gradually federalized. Significant events in the awareness and federal intervention on the AGs were the Sputnik incident (1957) that spurred the passing of NDEA to address the IAG and the mention in a Senate hearing of the NAG. We looked at how ESEA would fit within the thinking about the “War on poverty” and classified it as a quintessential *Apparatus of security*. Then we examined the re-authorization of ESEA, NLCB, which substantially modified it from an AoS to a hybrid AoS-RoD with internal contradictions that would eventually engender large controversies and conflicts.

5.4 The Process

5.4.1 Introduction

The third dimension of Foucault’s definition of *governmentality* refers to the result of the process of transformation from the “state of justice” into the “administrative state” (Subsection 2.4, point 3). As we have seen in Section 2, many of the papers that we analyzed have described and often decried the increase in administrative complexity of the school system (e.g. Ellis, 2008 and Doherty, 2006).

Farkas and Hall (2000) described the evolution of the Elementary and Secondary Education Act of 1965. The authors belong to the Brookings Institution,⁶³ ostensibly non-partisan, but in actuality quite conservative. Farkas and Hall noted that “schools are too little concerned with control and coordination” (p. 10). This analysis is quite important because ESEA has been the cornerstone of federal education legislation in the U.S. since 1965.

The authors showed how the rules for funding distribution and local allocation became more and more detailed with the ESEA amendments of 1969, 1974, 1978, 1981. This increase in control and detail occurred as a response to what was called the “displacement of local funds.” Local authorities would use federal funds to sustain general expenses, instead of devoting them exclusively to the targeted students. This is an example of the complex interplay between local and federal education policy where the intent of the law collides with local policy and cultural realities.

In addition, the 1994 reauthorization increased the range of the target population from grades one through three to one through twelve. The authors noted the deleterious effect of fund dilution and thus ESEA’s vanishing positive impact. Why did the federal government thus do so? It was based on two principles, ‘inclusion of all students’ and ‘local flexibility’. Farkas and Hall (2000) made the interesting (for me at least) proposal to have funds follow the students making Title I funding a ‘portable entitlement.’ They noted that with this type of reform “local Title I bureaucracies would be reduced in size, perhaps even eliminated.” (p. 93) The authors go even further and propose a parental controlled Title I expenditure account. However, policy history shows that such types of reform do not have much traction for basically two reasons. Firstly, bureaucracies have a very strong ‘survival instinct’ and will fight tooth and nail any reduction of their scope and reach, and secondly, there is a dislike at that policy level of placing money directly in the hands of the target population. I will discuss this phenomenon briefly in the Conclusions section. However, we can add to these two observations that according to the principles of governmentality, as we have seen previously, schools operate mainly according to a “régime of discipline” and do not constitute an “apparatus of security.”

We can compare this proposal of the authors with the “Pell Grants for Kids” proposal by Senator Lamar Alexander in 2004 (Senate hearing 108shrg94993 in Table

4.4, p. 115 and Table A.23, p. 445). Senator John Francis Reed (Democrat, RI) and Darlene Allen, president of the District of Columbia PTA, opposed the proposal giving as reason that it would subtract funds from public schools. Senator Dodd (Democrat, Connecticut) likewise opposed the proposal by raising civil rights issues. Also Robert Smith, superintendent for Arlington County Public Schools in Virginia, was against the proposal. He raised issues of adequate accountability and diversion of funds from public schools. Other opponents were the National Coalition for Public Education and a long list of organizations including religious and public school ones. It is obvious why public school organization would oppose the proposal, but why the other organizations? From the fact that the religious organizations were politically liberal, I deduce that those signers were concerned about the fact that most private religious schools are conservative. Thus, public money would indirectly support schools with a political outlook that conflicted with their own one.

In the following subsections are six narratives that I have constructed to describe and discuss the policy discourse on the “process of transformation” whereby the central government will vis--vis the achievement gaps (1) progressively control more and more of the public education system through a process of federalization, and (2) does so by introducing legislation that consists of an incoherent and incompatible mixture of “régimes of discipline” and “apparatuses of security.” I first created a narrative on *federal versus local control* of public schools (Subsubsection 5.4.2), then on the federal *control* of education and the *economy* (Subsubsection 5.4.3), *school funding* (Subsubsection 5.4.4), *testing* of the students (Subsubsection 5.4.5), *accountability* (Subsubsection 5.4.6), and *school interventions* (Subsubsection 5.4.7).

5.4.2 Federal versus Local Control

As we have seen, reauthorizations of ESEA are combined with increased federal control of public education. However, the 2002 reauthorization was so complex and radical to merit its own name, the “No Child Left Behind Act of 2001” (NCLB, <http://www2.ed.gov/policy/elsec/leg/esea02/index.html>, the document has 670 pages). Ostensibly the act tries to balance federal control with state and local flexibility (Figures 5.45 and 5.46). It is important to notice that NCLB is a bipartisan effort. The Republican Party, unlike the Democratic Party, opposes, at least nominally, the *process* leading to the *administrative state*. In reality both parties are eager to use the *apparatuses of security* as well as *régimes of discipline* of the Federal or State governments to further their ideological interests.

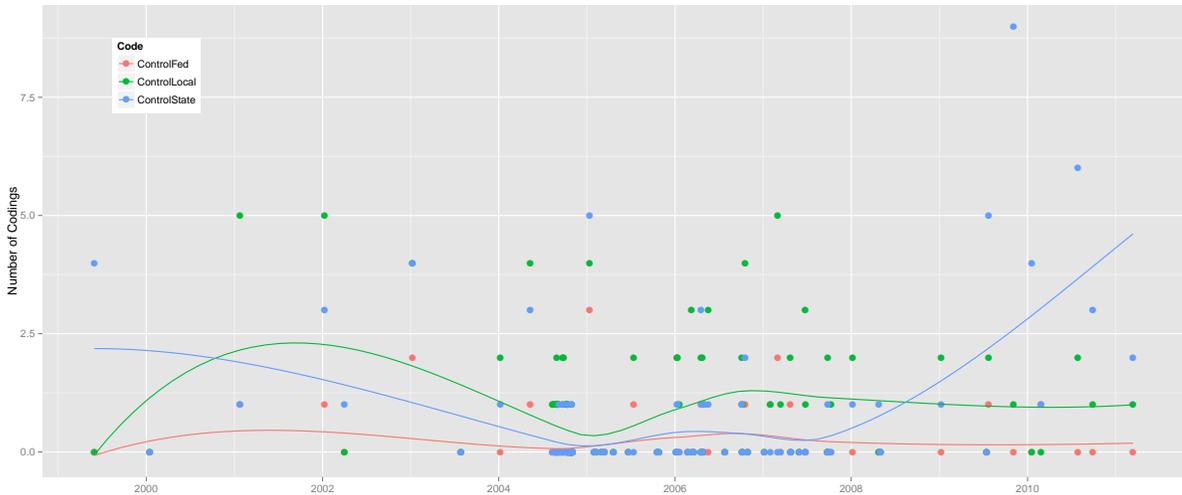


Figure 5.45: Presidential Documents - Federal, State and Local Control

It is interesting to notice how the expansion of the Federal control of K-12 public education is presented rhetorically. It is a delicate act consisting of the balancing

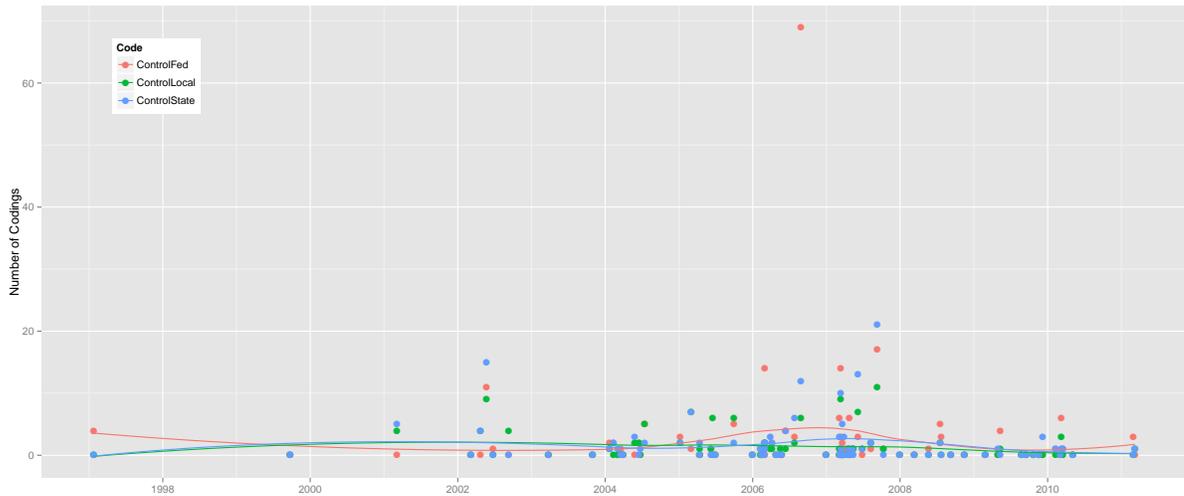


Figure 5.46: Congressional Hearings - Federal, State and Local Control

of opposites and the reduction of impacts. President George Bush gave a set of statements that illustrate this *modus operandi* in a communication with Congress in January 2001. He stated that “Change will not come by disdain or dismantling the Federal role of education. I believe strongly in local control of schools.” (WCPD-2001-01-29-Pg217, Table 4.3, p. 109) Note that NCLB was introduced in the House in March 2001. Obviously, these are two opposite concepts, one right after the other. Another relevant statement in this communication was

I oppose a national test, one designed here in Washington, DC, because I know it would undermine local control of schools and undermine State curricula. But States should test each student each year.

This discourse emphasizes state and local control, but implies federal control. After all, it was the federal government that imposed tests for “each student each year,” which is hardly a trivial matter. On this line later in the same document we have

We believe education is a national priority and a local responsibility, that Washington should be giving our schools help, not giving them orders.

The contrast between ‘priority’ and ‘responsibility’ is clear. However, in actuality a ‘national priority’ is nothing less than the motivation for an imposition from the central government on local governments, i.e. ‘federalization.’ Also notice that the federal government ‘gives help’ to schools and no mention is made of all the rules and regulations that this help implies. Again in “Local schools now have a mandate to reform, and we are giving them the freedom to reform.” we have a ‘mandate’ balanced with ‘freedom.’ This document concludes with several statements where the president underlines local control, such as “the agents of reform must be schools and school districts, not bureaucracies”, “Authority and accountability must be aligned at the local level,” and “my passion for flexibility at the local level.” Of course, the unstated is that the terms ‘local control,’ ‘agents of reform,’ and ‘authority’ are operating in a legal and financial environment dictated by the federal government.

About a year later, when President George W. Bush signed NCLB into law, he made some remarks on this law where he again uses the rhetorical device of the balancing of opposites (WCPD-2002-01-14-Pg36, Table 4.3). He stated that “We believe education is a national priority and a local responsibility, that Washington should be giving our schools help, not giving them orders.” This was said in the face of hundred upon hundreds of pages of federal education legislation and regulations. In “Local schools now have a mandate to reform, and we are giving them the freedom to reform.” we see again a contrast between ‘mandate’ and ‘freedom.’ The president also stated “unprecedented flexibility to decide ... In return, we expect States to set standards of basic knowledge and to make steady progress toward meeting those standards.” Similarly in the same the president stated “we will spend almost \$400

million to help States design and administer tests. In return, we expect States ...” We have references here to an aspect of neo-liberal ideology, the importation into government practice of ideas from business management. Later we will discuss this aspect of education policy analysis.

A more blunt assertion of federal authority is also done in this document such as in “States must show us that overall student achievement is improving, and as importantly, they must show that the achievement gap between the disadvantaged students and other students is closing.” In that case the imposition is balanced by implied principles of the welfare of the children and civil rights.

A few months later, on 2002-05-23, a Senate hearing was held with the title “America’s schools: providing equal opportunity or still separate and unequal?” (107shrg79941, Table 4.4, p. 115). During this event Judy Catchpole, Wyoming State Superintendent (Table 4.13, p. 130), gave a presentation. While on the whole she showed a positive attitude towards NCLB, she remarked that

Whether it is Title I, school nutrition or IDEA, your goal has always been to “supplement and not supplant.” This agreement between the Feds and the States has kept an important balance in the local traditions and the national importance of education.

....

I will share gently that you have also opened the doors on an incredible bureaucracy.

During this Senate hearing a very interesting statement was made by Hugh B. Price, president of the National Urban League (Table 4.16, p. 138, <http://www.nul.org>)

Conventional wisdom holds that public education is a local responsibility. I don't buy that argument either. Chances are that children raised on farms in Idaho will manufacture Saturn automobiles in Tennessee. Youngsters reared in Chattanooga will become investment bankers on Wall Street.

Society has a compelling interest in the quality of America's high school graduates that justifies aggressive leadership by States and by the Federal Government.

The history of education in the U.S. has precedents where the federal government directly intervenes into local affairs for reasons of social justice. For instance, the federal government had to intervene multiple times after the "Brown versus Board of Education" verdict in 1951. Hugh Price makes it clear in his statement that he does not trust the state governments to achieve educational equity and is asking the federal governments to intervene. He certainly has history on his side on this argument.

A similar sentiment is expressed also during this hearing by Michael A. Rebell, executive director of the Campaign for Fiscal Equity (Table 4.16). He proposes that the federal government should force states to equalize funding for all schools in each state. Although he does not use that kind of language and is more circumspect by employing the terms 'unnecessary and unacceptable anachronism,' 'Federal encouragement,' 'need not conflict with ... local control,' and 'actually take control.'

The following year, in 2003, on occasion of the second anniversary of the signing of NCLB, the president gave another speech where the AGs were mentioned (WCPD-2003-01-13-Pg39, Table 4.3). We can notice the balancing of opposites and the blunting of federal impositions. President Bush stated "Schools have a responsibility

to improve, and they also have the freedom to improve in this law,”. Notice the use of ‘responsibility’ instead of ‘obligation’ and its connection to ‘freedom.’ The statement continues with “I can assure you, I haven’t changed my attitude about Federal control of schools. When I was the Governor of Texas, I didn’t like the idea of Federal control of schools.” Ironically, this was stated on the occasion of the passing of the largest federal education legislation.

The following part of this statement has an interesting logical contrast in “Parents and educators . . . are the agents of education reform.” The education reform is a imposition from the central government, but that is rhetorically overshadowed by naming the parents and educators as ‘agents.’

Dr. Roderick R. Paige was U.S. Secretary of Education during the first presidential term of George Bush (2001-2005). During a House hearing held on 2004-02-11 (108hhr91861, Table 4.12, p. 129), he explained his understanding of the role of the federal government in education.

Because the Constitution was silent on the issue of public education, it is a responsibility of the States, including funding. However, we do have a national interest. Although the Federal Government has been involved in education since the late 1800s, it only took a prominent role with the enactment of the Elementary and Secondary Education Act of 1965. But the increased funds from this initiative proved to be an incomplete solution. In 1983, when the National Commission on Excellence in Education issued the groundbreaking report entitled, “A Nation at Risk,” they chose their words purposefully. They did not issue a report entitled, “A Few States at Risk.” Educational inequity does indeed place our nation at risk – and it is for this reason that the No Child Left Behind Act is an

important component of ensuring our nation's well-being.

We have previously seen how federalization in education has been justified by the failure of local policy to establish social justice. In this case we have a different justification for federal action, a situation of *national interest*, nay *national risk*. Michel Foucault devotes the final part of his 3rd lecture given on 24 January 1979 at the Collge de France to this problematic (Foucault, 2010, pp. 67–70). He said that

The third consequence [of the liberal art of government], is the appearance in this new art of government [i.e. liberalism] of mechanisms with the function of producing, breathing life into, and increasing freedom, of introducing additional freedom through additional control and intervention.

He then gave examples of ‘developing economic crisis’ that will endanger the ‘freedom to work, freedom of consumption, political freedom, and so on.’ (p. 68). Anyway, Secretary Paige continues his presentation in line with what the president had been saying and stated that ‘Our role at the U.S. Department of Education is to supplement State and local efforts, not to supplant them.’ and that ‘A uniform set of “federal standards” does not exist.’ Those would be announced in June 2009 and would not be a federal initiative, but one by the National Governors Association.⁶⁴ The *Common Core State Standards Initiative* is discussed in the House Hearings 111hrg53732 and 111hrg55304 (Table 4.5, p. 117). Ironically, the name of these standards include the term “State” even though for all intents and purposes it is a national standard.

On 2004-05-11 during a speech at a junior high school, the president tried to explain the reason of this tension between local and federal control of public education

(WCPD-2004-05-17-Pg856, Table 4.3). He stated “the Federal Government is spending more money on education, but for the first time, we’re asking for results.” Again, there is a statement that tries to express an opposing idea “Washington should not be primary funder of schools in America. That’s up to the States and the local people.” Asking for results is *prima facie* quite a reasonable argument, even common sense, and so it is presented. In reality this demand required a large expansion of the *administrative state* at all levels, federal, state and local. Its implementation would raise questions, cause frictions and even resistance. Hence, more rules and regulations have to be created to cover all aspects, and prevent the use of ‘loop holes,’ thus pushing the process of administrative expansion even further. Consider the following statement in this document “You don’t want Federal bureaucrats . . . making the decision for the classrooms You need local control of schools . . .” Local control, yes, but limited local control would be a more precise description.

Two months later, Senator Lamar Alexander tried to roll back the *administrative state* (2004-07-15, 108shrg94993, Table 4.4, p. 115). As we have seen in Subsubsection 5.4.1 even though he received some support, his effort was a political dead end.

The following month the president during an election speech made a statement (2004-08-11, WCPD-2004-08-16-Pg1561, Table 4.3) where a he sandwiched a statement supporting local control between two statements that advocated federal control, “We believe in accountability. We believe in local control of schools. We believe in challenging schools that refuse to change and refuse to teach.” The chain of terms ‘accountability-control-challenge’ is telling. The schools are accountable to the federal government and are ‘challenged,’ actually ‘regulated,’ by it. However, we are told that control is local. We have thus a ‘centripetal’ term, ‘challenge’ that is shielded by two ‘centrifugal’ terms, ‘accountability’ and ‘local control.’

The president would a few days later (2004-08-13) make similar statements (WCPD-2004-08-23-Pg1587), “We believe in local control of schools. When we find children in schools that won’t change and won’t teach, we demand something other than the status quo, and we’re seeing great results. The achievement gap among students in America is beginning to close because we believe every child can learn.” Here we have ‘local control’ contrasted with ‘demand.’ Rhetorically we have just one centrifugal term paired with a centripetal one. However, the federal government justifies its incisive attitude by making appeal to the welfare of children and a civil rights principle.

A few days later again (2004-08-17) President Bush stated in another election speech “We believe in accountability. We believe in local control of schools. And when we find schools that will not teach and will not change, we’re bold enough to challenge the status quo.” Again, we have the central-local-central triplet ‘accountability-local-challenge’. The handle is that it only applies to unreasonable schools that do not want to adapt to the new (economic) realities.

The following day (2004-08-18, WCPD-2004-08-23-Pg1644-2) during another electoral speech the president gave he stated “And so the No Child Left Behind Act sets high expectations and high standards. It believes in local control of schools. It believes in empowering parents. But it also says, Let’s measure to determine whether curriculum works, to determine whether or not our children are learning to read.” We have thus a variant of this triple, ‘expectations/standards - local/empowering - measure/determine’, where each term is undergoes mitosis.

During another electoral speech (WCPD-2004-09-06-Pg1720) the president stated “We increased Federal funding, but we increased local control of schools and accountability across America so not one child is left behind in this country.” We have again a ‘central-local-central’ triplet followed by a motivation.

We have similar rhetoric in another later election speech, WCPD-2004-09-06-

Pg1727. A telling remark is the following, where he addressed a school superintendent, “I believe in local control of schools, and I wanted somebody in Washington who understood all wisdom about education is not in the bureaucracies of Washington;” We have ‘local-Washington/positive-Washington/negative triplet. We have a secretary in the nation’s capital as head of the federal Department of Education, but he is actually somehow not part of ‘Washington.’ Later in the same speech we have mention of results for money, and measurement for the benefits of the children, by now a familiar rhetorical scheme.

In a speech at a high school given in January 2005 (WCPD-2005-01-17-Pg45, Table 4.3) the president said that “The role of the Federal Government is to serve as a funding source for specific projects and an instigator for accountability systems.” Note the terms ‘specific’ and ‘instigator.’ Rhetorically they have the function to lighten the perception of the weight of federal control on education. Indeed, Mr. Bush continues with “The accountability system is, of course, devised by local people.” and “I believe Federal control of the public school systems leads to failure.” Similar conciliatory language were later expressed, such as “Federal Government to work with the State government to provide incentives”, and “the Federal Government will take your side and help you.” (WCPD-2005-07-18-Pg1158), “I don’t think you want the Federal Government funding all public schools.” (WCPD-2006-01-16-Pg26-2), “the Federal Government needs to play a vital role. One, a vital role is to set the goals and strategies,” (WCPD-2006-04-24-Pg734), and “there needs to be a collaborative effort between the Federal Government and the State government” (WCPD-2006-05-01-Pg751).

Many examples could be presented of the complex give-and-take between the federal and local education policies. One aspect that was the topic of a House hearing (109hhr28431, 2006-06-13) was how to disaggregate the data between eth-

nic/racial/income groups. Actually, the issue was even finer than that; it was about the N-size, which is the minimum number that a certain group of students (in NCLB language ‘subgroup’) should be to be included in the AYP calculations. Those who were more concerned with decentralization would support a higher number than those who were more concerned about civil rights and the achievement gap. For instance, John C. Brittain, Chief Counsel and Senior Deputy Director, Lawyers’ Committee for Civil Rights Under Law stated during this hearing

Congress did not prescribe a minimum “N” size in the law, or even an acceptable range. Rather, the law leaves it up to the states to set their “N” size (as well as other accountability requirements) and to submit their accountability plans to the Secretary of Education for approval.

...

But, it raises reasonable suspicion that some states are trying to permit schools and districts to evade their responsibilities

...

I recommend that NCLB maintain the full provisions for disaggregation of data. In addition, to fix the “N” size loophole problem, the Committee should consider proposing legislation that continues to provide states with discretion, but sets a maximum limit on the number of excluded students. In addition, if the state excludes a minimum number of students from testing, it should review the data on the excluded students to determine their level of proficiency.

In other words, he advocated that the federal government regulate the states’ education policy because of a ‘loophole.’ This is one aspect of the ‘metastatic’

government. When a rule is established, opposing forces arise in the periphery, which will force the center to be more and more specific and capillary in its regulations and rules. The natural result is a complex and pervasive system that requires a vast amount of bureaucracy and legal counsels.

Indeed, two months later another House hearing was held to examine another issue with the implementation of NLCB (2006-08-28, 109hhr29626), the provision that in each classroom there should be a “highly qualified teacher.” NCLB specifies what that means and it is the first time that the qualification of teachers was specified at the federal level. As with any new federal regulation there was a degree of opposition from the states. However, usually it was not a strident or vociferous opposition, but a sedate one. Basically, the states would ignore this provision or try to water it down to a point where the requirements would be already met by existing situations in the state. As we have seen, many organizations and activists who were concerned with educational equity would ask the federal government to intervene and force the states to comply with this provision. An example of this action is the statement by Phyllis McClure, Dianne Piche and William L. Taylor of the Citizens’ Commission on Civil Rights⁶⁵ (Table 4.16 and Table A.33). Their statement contains the following language about federal vis--vis state and local education policy

In the weeks and months following the states’ submissions of their July 7th plans, there are several key issues that Congress, advocates, educators, and the press should be sure to track, including: (a) exactly how states say they will address the teacher quality provisions of the law during the upcoming year, (b) how carefully the Department of Education evaluates and enforces the revised state plans during 2006-2007, and (c) whether states take meaningful action to address the law’s requirements

or continue their patterns of resistance, delay, and misreporting.

Increased scrutiny during 2006-2007 is necessary because states, districts, and the U.S. Department of Education have over the past four years demonstrated high levels of inattention and, in some instances, deep-seated resistance to the law's teacher quality provisions. (Already, some states, like Utah, have indicated in the press that they plan to ignore the July 7th date and submit their revised plans in the fall.)

Providing qualified teachers for low-income children is one of the most important and challenging elements of the law. The likely consequence of a continued lack of state and federal enforcement is clear. The most significant national effort to date to reform and improve public schools will be deemed a failure, not because it had been tried and found wanting, but because it had really not been tried at all. And the losers will be children.

The following year the Senate held a hearing on the same subject (2007-03-06, 110shrg34052, Table 4.4). Amy Wilkins, Vice President for Government Affairs and Communications, The Education Trust⁶⁶ made a very similar statement to the previous one given at the House hearing.

Even in the following years the discourse about federal control is similar. It is minimized, hedged, almost hidden. On 2007-01-02 the president gave a speech at an elementary school and started it with "I want to talk about schools and the Federal role in schools relative to local governments" (WCPD-2007-03-05-Pg238). Then later he said

I fully understand some are nervous when they hear a President talking about Federal education. You start thinking to yourself, the Government

is going to tell you what to do here at the local level. Quite the contrary, in this piece of legislation. I strongly believe in local control of schools. I believe it's essential to align authority and responsibility. And by insisting upon local control of schools, you put the power where it should be – closest to the people.

As we know, in reality the opposite happened with NCLB. This is implicitly acknowledged by later stating that “if you spend money, you should insist upon results.” In other words, the federal government has power and it will exercise it.

It should be clear by now that in this local versus federal policy controversy does not follow political party fault lines. There was a *convergence of interests* for both parties when NCLB was passed and there is a convergence of interests also for those who oppose it. With this in mind it is interesting to examine a statement given on 2007-06-07 by Chester E. Finn, Jr., President of the Thomas B. Fordham Institute and Chairman of the Koret Task Force on K-12 Education at the Hoover Institution, Stanford University

In Washington, these debates about prescription versus flexibility and the proper federal role quickly become ideological. Conservatives tend to argue that states have constitutional authority for schooling and the federal government should simply leave them alone. (Never mind that plenty of states have an abysmal record of providing a decent education, especially for poor and minority kids.) Liberals are apt to insist that states can't be trusted and that only strong federal enforcement of specific measures will lead to a narrowing of the achievement gap. (Never mind that plenty of states were making decent strides in raising achievement and narrowing gaps sans federal prodding.)

Neither view is right. Each leads to a bad outcome: Either “put the money on the stump,” let states and schools do whatever they want, and hope for the best; or micromanage fifty states, 15,000 districts and tens of thousands of schools through miles of red tape. Neither approach works, not, at least, if stronger student achievement is the metric by which success is judged.

The above statement is very interesting and should be read in its entirety because it analyzed the federal versus state and local education policies (110hhr35664, Table 4.16 and Table A.58).

The succeeding president altered the discourse slightly and advanced the growth of the *administrative state* by complementing NCLB with RTTT. President Obama in 2009-07-24 made a speech at the U.S. Department of Education where he stressed, among other issues, the collaboration between all parties interested in public education, from the parents all the way up to Washington (DCPD-200900595).

The following year, on 2010-02-26, in presence of African American leaders he mentioned the collaboration between the federal and the state governments in the resolution of the achievement gaps (DCPD-201000130).

The descriptive statistics of the codings confirm the rhetorical analysis of the presidential documents by President George Bush. The code for local control ranks number 15, for state control 22 and federal control only 33 by frequency (Table 4.18, p. 147). The frequency ranking is the opposite in the Congressional hearings (Table 4.22, p. 152), being most likely a sign of the concerns raised about the federal control of education.

The cross-code table of the Congressional hearings shows the highest overlap of federal control of education with educational equity (Table 4.23, p. 156). The

same table for the Presidential documents presents another interesting feature. The highest overlap of local control of education is with school reform (Table 4.19, p. 149). However, in the other collection it is federal control that is most correlated, which is again a sign of contrasting discourses between the local concerns and the statements of the administration.

The numerical analysis of the content-rich words (text mining) confirms the above observations. Among the top 50 most frequent terms in the Presidential documents the term ‘local’ appears, but not the terms ‘state’ and ‘federal’ (rank 35, unstemmed, Table 4.27). As noted previously, in the Congressional hearings the situation is the opposite, the term ‘federal’ ranks number 17 and the terms ‘local’ and ‘state’ are not among the 50 most frequent terms (Table 4.28).

The cluster dendrogram of the most frequent terms of the Presidential documents show a closeness of the terms ‘feder,’ ‘govern,’ and ‘local’ (Figure 4.3).

5.4.3 Control and the Economy

On 2007-03-15, during a speech given at a dinner of the National Republican Congressional Committee, President George W. Bush introduced a new component in this rhetorical structure, the international standing of the U.S. economy (WCPD-2007-03-19-Pg338-2, Table 4.3). This speech was given on the heels of the ‘Chinese correction,’ when the Dow-Jones Industrial Average experienced the biggest one-day drop since the September 11 attacks. The great recession had not yet started. It seems that the first public sign of it was the action on 7 August 2007 of BNP Paribas blocking the withdrawal from three hedge funds.⁶⁷ However, the housing bubble had already started to burst.⁶⁸ Indeed in this speech the president stated “We’ve got work to do to make sure this economy continues to stay strong.” and then

We believe strongly that this country needs to remain competitive so that

we can remain the economic leader in the world. And one of the best ways to remain competitive is to make sure our youngsters get a good, sound education. I believe strongly in local control of schools, but I also believe in raising standards and holding schools accountable for achieving results.

Here we have again the triplet ‘make sure’ - ‘local control’ - ‘standards/accountability,’ where a centripetal term (make sure) is followed by a centrifugal one (local control), and then again by a centripetal term (standards/accountability). But this time instead of making appeal to business or common sense or civil rights, the president makes appeal to the competitiveness of the U.S. economy (Figures 5.10 and 5.11). A very good indicator of the position on the U.S. economy in the world is the nation’s trade balance. Since 1975 this balance has been negative. However, from 1998 to 2006 this deficit had steadily worsened, increasing by more than 600 billion dollars (Figure 5.47).⁶⁹

This was not the first time that the president mentioned international economic competition in a speech on education and the local or federal control of education (see the previous WCPD-2004-08-23-Pg1644-2 on 2004-08-18). However, this was the first time that he connected it so closely to the governmental control of education.

Just two days prior, on 2007-03-13, during a joint Senate-House hearing on the re-authorization of ESEA (110jhr33757, Table A.68 and Table 4.16), Reg Weaver, President of the National Education Association,⁷⁰ made several statements where he asked for increased governmental involvement at all levels. He used international competitiveness several times as one of the motivations for these interventions. Reg Weaver asked congress to force states to raise the compulsory school attendance age to “to ensure future competitiveness.” He also proposed that states increase funding

for education by changing their fiscal policies “to maintain America’s competitive edge in this global, knowledge-based economy.”

The following month a Senate hearing on the NCLB re-authorization was held (2007-04-24, 110shrg35072, Table A.72 and Table 4.4). Among the presenters was Dr. Robert Balfanz, researcher at the Center for Social Organization of Schools at the John Hopkins University (Table A.72 and Table 4.15). He encouraged “well-conceived action by the Federal government” to “play a catalytic role in ending the Nation’s dropout crisis and in so doing change the Nation fundamentally for the better.” Notice the terms ‘action’ and ‘catalytic role.’ Later in this statement Dr. Balfanz mentions a ‘Federal-State-local partnership.’ The increasing role of the federal government in education is again expressed in *mild* terms.

It should be noted that Margaret Spellings, the U.S. Secretary of Education, had previously made a reference to international competition and state policy control at her Senate confirmation hearing (2005-01-06, 109shrg97751, Table A.48 and Table 4.12).

Even though the federal education budget was, and still is, negligible in the context of total of the national budget, it was frequently mentioned. For example in speech given on 2007-06-25 to the Presidential Scholars mentions both (WCPD-2007-07-02-Pg858)

The philosophy behind the law is straightforward. It says the Federal Government should expect results in return for the money it spends. That’s not too much to ask, I don’t think.

....

Our ability to compete in the 21st century depends upon educating children just like the ones standing behind me. Whether we like it or not,

we're in a global world. And if the world needs engineers or scientists, and those scientists are being educated in China and India and not being educated in the United States, the jobs of the 21st century are likely to go there. And so we better make sure that we have a strategy aimed at making sure that we have high expectations and good results for every child in the United States, if we expect to remain competitive.

....

The Federal Government has said, "We believe in local control of schools; you reform them; you fix them." We're just going to insist that you measure, in return for the billions we spend on your behalf.

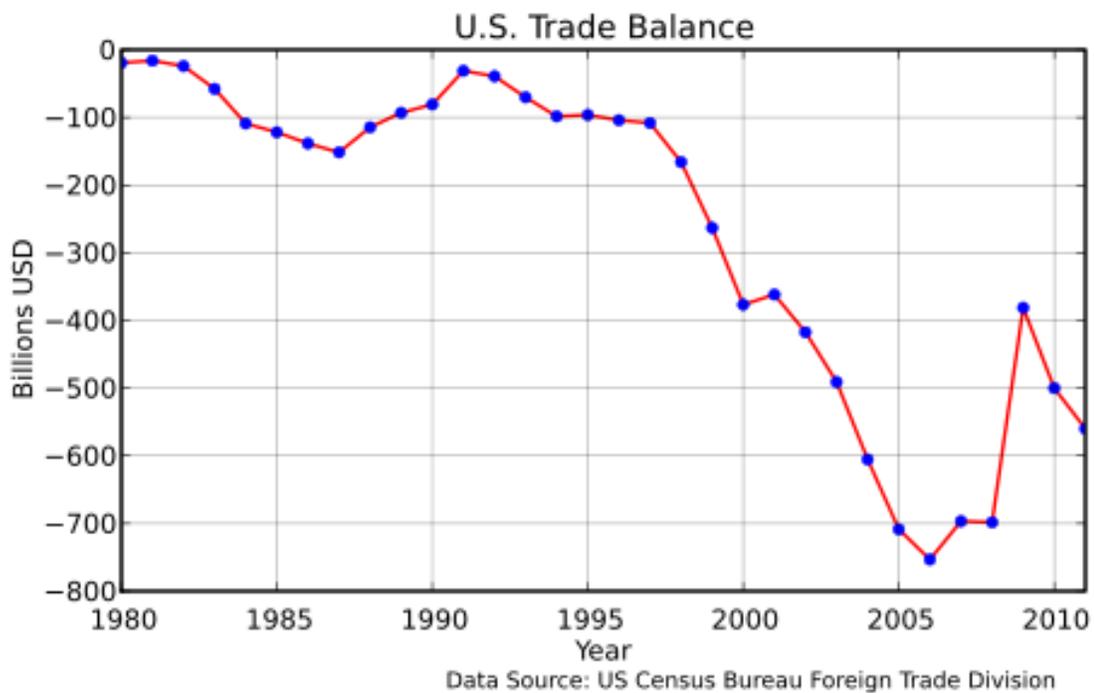


Figure 5.47: U.S. Trade Balance

Note in the last statement the triplet ‘you fix/you reform’ - ‘we insist’ - ‘your behalf.’ The centripetal term is sandwiched between two centrifugal ones. The first term is a statement of local agency, followed by an apparently innocent non legal term, and then a statement of local benefit, a large amount of funding. President Bush has often connected local control with funding.

5.4.4 *Control and Funding*

There are three basic themes in the speeches of President Bush concerning governmental control of education and funding with respect to the AGs

(1) The federal government has the right to demand results for the money it disburses. For example “in return for extra Federal money, you measure” (WCPD-2004-09-06-Pg1727), “we believe in return for Federal money, people must show us whether or not the children can read and write and add and subtract” (WCPD-2004-09-06-Pg1790), “We’re spending a lot of Federal money, particularly on Title I students; show us whether or not the money is being well spent.” (WCPD-2006-03-13-Pg434), “The Federal Government is asking for demonstrated results in exchange for the money we send from Washington” (WCPD-2006-10-16-Pg1765), and “In exchange for Federal dollars, however, we expect results.” (WCPD-2009-01-12-Pg22-3)

(2) Federal funding of education is, and should remain, only a small fraction of the total education budget. For example “It’s the primary responsibility of the State and local governments to fund schools, not the Federal Government” (WCPD-2004-05-17-Pg856), “The role of the Federal Government is to serve as a funding source for specific projects and an instigator for accountability systems” (WCPD-2005-01-17-Pg45), “We’re not going to fund it all, but we’re going to make targeted funding. And it’s a good use of money” (WCPD-2006-01-16-Pg26-2), and “the Federal Government only spends about 7 percent of the total education budgets around the country, and

frankly, that's the way I think it should be." (WCPD-2007-03-05-Pg238)

(3) The federal government has increased federal funding of education, but only because it is necessary to implement *accountability*, a term connected to the return of investment and business efficiency. The federal government cannot renege on Title I. As we have commented, almost never does the government shrink. The innate tendency is to grow, and to more and more pervade society. In this case *accountability* (a business principle) and the *closing of the AGs* (a social justice principle) are given as a reason for the increase in governmental control. See for instance, "We are increasing support and funding for research into teaching methods that work." (WCPD-2002-01-14-Pg36, note the business efficiency reason), "It said the Federal Government is spending more money on education, but for the first time, we're asking for results." (WCPD-2004-05-17-Pg856), "We increased Federal funding, but we've also started to ask important questions: Can our children read and write and add and subtract?" (WCPD-2004-08-23-Pg1631), "We increased Federal funding, but we increased local control of schools and accountability across America so not one child is left behind in this country." (WCPD-2004-09-06-Pg1720, note the juxtaposition of business efficiency and social justice), "in return for extra Federal money, you measure." (WCPD-2004-09-06-Pg1727), "in return for increasing Federal spending, ... strong accountability measures ... correct a child's learning problems early" (WCPD-2004-09-27-Pg2085), "in return for extra spending, we now want people to measure" (WCPD-2004-10-18-Pg236), "Title I program spending has increased 45 percent since 2001." (WCPD-2006-01-16-Pg26-2), "in return for Federal money – in increasing amounts ... We expect you to measure." (WCPD-2006-05-01-Pg769-2), and "extra funding for under-performing schools. ... if you measure," (WCPD-2007-07-02-Pg858).

Soon after the signing of NCLB, education secretary Roderick Paige spoke about

funding, saying that “these new dollars are focused on changing the culture of our education system and closing the achievement gap.” (107shrg70756 on 2001-03-06, Table A.7 and Table 4.12), which recalled point (3) of president Bush. He also tried to blunt the impact of this new law by adding “reduced bureaucracy and greater flexibility for States, school districts, and schools;” His deputy, Eugene Hickok, basically repeated the same type of language the following year (2002-04-23, 107shrg79324, Table A.9 and Table 4.12) with “flexibility of States, local educational agencies, and schools to use Federal funds in a manner that best reflects State and local needs and priorities. . . . in exchange for committing themselves to improving student achievement and narrowing achievement gaps.”

The following month, on 2002-05-23, a Senate hearing was held on the topic of school equity, a concept that is closely related to the AGs (107shrg79941, Table 4.4). Senator Michael Enzi, a Republican member of the Committee on Health, Education, Labor and Pensions, made a statement (Table 4.9 and Table A.10) where he said

I am pleased that we will have an opportunity to examine the implications of extending unprecedented Federal control into our Nation’s schools. At the end of the day I hope we can agree that the Federal Government must continue to target our resources to the students who are the most in need, while resisting the urge to interfere with ongoing school finance litigation based on individual State constitutions.

This is an obvious reference to NCLB and all its impositions on state and local education policy, and another problematic, school funding inequality, which is a consequence of the local funding of schools in the U.S. (Payne & Biddle, 1999). Thus, this statement is a grudging acceptance of the expansion of the *administrative state* for certain aspects and its rejection in another sector of education policy. Local

funding of schools seems to be the last holdout of local control since today we basically have a pervasive federal education policy, a national curriculum, and there is talk about aligning state tests with the National Education Assessment Program test. What is still left as a local matter is school funding. Why is this still the case in face of just about everything else being unified on a national level? I suppose the reason is that we do not have a *convergence of interest* on this subject. The only sector of society that would benefit is the poor and thus those with little political influence. Those that would lose the most are the wealthy, those that not only vote, but give the bulk of political contributions.

NCLB has the goal of eliminating the AGs, but does not address funding inequality. That problematic is often the purview of another branch of the government, the judiciary. Many legal actions have been taken by civil rights organizations in this regard. As we have seen here above, reference to this situation was made in this Senate hearing. A different side was presented in this setting by Hugh B. Price, president of the National Urban League⁷¹ (Table 4.16 and Table A.10). He said in this committee hearing that

The National Urban League is pleased that the President and Congress have made education a priority. We are concerned however, that education funding continues to be unequal between poor and wealthy school districts.

...

In exchange for meeting the new demands, poorer school districts will receive additional Federal funding, and all States and school districts will have greater flexibility in how they use Federal funds.

...

No longer should poor and minority children be held hostage to communities with low tax bases, with weak commitments from States to provide quality education, and skinflint taxpayers who oppose providing equal and adequate support for all schools in their State.

...

Having imposed high standards on all children, the Government now has the moral, financial and legal obligation to guarantee high quality education for every child.

In other words, NCLB is incomplete because it does not address (adequately) the financial situation of public education and can thus not fully resolve the barriers to the elimination of the AGs. Thus, the *administrative state* should expand. Again appeal is made to the federal government to rectify a perceived negligence of the states. As we have seen, there is a history in the U.S. where state government hinder, ignore, or sabotage federal civil rights legislation.

At this point I would like to go forward in time several years to examine a Senate hearing that was held to discuss the re-authorization of ESEA, i.e. NCLB (2010-03-09, 111shrg55474, Table 4.4). It should be noted that we are at the beginning of the presidential term of Barack Obama, that NCLB has been in effect for about nine years, and that the war on poverty was started 45 years previously. Among the experts that participated in this hearing was Dennis van Roekel, president of the National Education Association (NEA, successor of the previously mentioned Reg Weaver). The president of NEA said the following about the control of education and school funding

The Federal Government plays a critical role in ensuring that all children – especially the most disadvantaged – have access to an education that

will prepare them to succeed in the 21st century. The Federal Government should focus on high-quality early childhood education, parental/family involvement and mentoring programs, as well as quality healthcare for children to help overcome issues of poverty that may impede student progress. It should support community school initiatives in an effort to address these issues comprehensively; must invest in proven programs such as knowledge-rich curricula and intensive interventions; and must provide resources to improve teaching and learning conditions through smaller classes and school repair and modernization.

...

Finally, it [i.e. the federal government] can develop policies that encourage States to play a more active role in monitoring and addressing (through “Adequacy and Equity Plans”) specific success factors and disparities in schools that are persistently low-achieving or that have significant educational opportunity gaps. By requiring States to detail plans for helping close these fiscal and resource gaps in their Adequacy and Equity Plans, the U.S. Department of Education and the public can begin to provide critical support for State and local efforts to provide adequate and equitable funding for all schools.

Thus, the NEA called for an increase in federal control over the states by giving directives that went beyond what NCLB required (Table 4.16 and Table A.86).

In the following year a House hearing took place on the role of the federal government in education (2011-03-01, 112hhr64657, Table 4.5). By then the calls for reforming NCLB could not be ignored anymore and the political discourse had shifted from mere requests for ‘flexibility’ to an actual reform of NCLB. Among the hearing

participants was Kati Haycock, the president of The Education Trust (Table 4.16 and Table A.89). Kati Haycock made the following statements during her presentation about the ‘burdens’ of NCLB on local and state education activities

These are the burdens – often horrendous ones, I might add – to which Congress should turn its attentions during reauthorization, sheering off unnecessary regulatory burden and producing a “thin” law with a clear focus on improved results.

....

The school improvement provisions of the law, for example, require the development of a plan that, by some counts, contains no fewer than 17 elements, most of which are simply pulled from a grab bag of activities important to various interest groups. I saw the effect of this in a recent visit to a small school district in the Midwest. Here’s what happens: The federal government demands a plan with 17 elements, and sends that requirement to the state. The State Department of Education, in its infinite wisdom, turns that 17 into 55, formats them within a 100-page plan, and demands the plan BEFORE school starts. For the principals of these schools, the burden looks like this: six 12-hour days to produce a plan, which – to be a real plan – has to be redone two weeks later once their teachers return and can provide input.

....

Requirements like these are one of the reasons why the current law is more than 1,000 pages long, and why the regulations issued under it add another approximately 300 pages.

The president of the Education Trust thus provided an interesting panorama on the advancement of the *administrative state*.

The descriptive statistics of the QDA codings show that the code for school funding (*EducFunding*) in the Congressional hearings shares the largest number of paragraphs with the code for school reform (413, *SchoolReform*, Table 4.23), and that a close second is the code for the poverty of the students and their families (406). The analysis of the codings of the Presidential documents agrees with the discourse analysis in this subsection that the focus of federal funding has shifted from simply addressing poverty (original intent of ESEA) to a return-on-investment policy (NCLB and RTTT). The code for funding is correlated the highest with school reform (127, Table 4.19), then with student assessment (108, *StudentAssess*), followed by school accountability (67, *SchoolAccount*) and only then student poverty (61, *StudentPoverty*).

5.4.5 *Control and Testing*

Another arena where we see conflict between the center and periphery of education policy is the imposition by the federal government of the testing of students first and teachers later. The process is amply reflected in the political discourse that I have examined as well as in the academic literature (Betts & Danenberg, 2002; H. Braun et al., 2010; Dunn & Allen, 2009; Jordan, 2010; J. Lee & Reeves, 2012; McMahon, 2011; Penfield & Lee, 2010).

The rhetorical stance of President George W. Bush has been, as we have seen previously, to minimize the perception of federal control. Many times he stated that he opposed a national test. In addition he preferred to use oblique terms to indicate that NCLB imposes mandatory testing for all students such as ‘you measure’ or ‘we must measure,’ ‘you show,’ ‘states should test,’ ‘people must show us,’ ‘diagnose the

problem,’ ‘your (own) test,’ ‘demonstrated results,’ and ‘you need to measure.’

A few days after he signed NCLB he stated “I oppose a national test, . . . it would undermine local control of schools and undermine State curricula. But States should test each student each year. Without yearly testing, we don’t know who is falling behind and who needs help.” (2001-01-23, WCPD-2001-01-29-Pg217, Table 4.3). We see the by now common structure of ‘local-central-reason.’

The following year, on 2002-04-23, the Democratic Senate co-author of NCLB, Senator Edward Kennedy, gave a statement during a hearing titled ‘Implementation of the No Child Left Behind Act’ (107shrg79324, Table 4.4 and Table A.9).

First, we must ensure that the law is applied fairly, allowing room for State and local initiatives permitted under the new law. In passing the new law, Congress was clear about its expectations. We demanded tough accountability for results. We want to know whether schools are improving and helping our children do better. We required annual tests of the highest quality that provide the disaggregated data that schools need to know in order to determine what additional help is required for each and every child to succeed.

We notice that the annual test is qualified by the expression ‘highest quality,’ a designation that can be interpreted and applied in many different and conflicting ways. NCLB is a splendid example of ‘convergence of interests’ that has shaped civil rights reforms in the U.S. (e.g. D. A. Bell, 1980, Zion & Blanchett, 2011, and Milner, 2008). Its wide acceptance created boundaries of the educational reform discourse for many years. As we have seen, only in 2009-2010 with a new president the discourse progressed beyond mere calls for ‘improvements’ and ‘increased flexibility,’ and reform of NCLB became part of the federal education policy discourse. This

is part of the tendency of the *administrative state*, namely it rarely is reduced. A law, especially a complex and pervasive one becomes a permanent fixture of policy. At best it can or must be ‘reformed,’ never abolished because of the multiplicity of vested interests that such a law has created in society.

Thus, the discourse of Senator Kennedy is within the boundaries of the NCLB policy framework. He is requesting a “high quality” test; all those engaged in public education need to be “full partners in the reform,” and “we must take local concerns seriously,” and above all, “we must provide significant increases in the funding.”

In speeches that followed the above mentioned WCPD-2001-01-29-Pg217, the president gave several variations on the theme of student assessments. For instance during an electoral speech he said “we’ve raised the standards. That’s why we believe in local control of schools. And that’s why we measure, so we can solve problems early, before it is too late.” (WCPD-2004-10-18-Pg2330) In the preceding statement we see ‘central-local-central-reason’ structure, which is somewhat unusual. Maybe this is due to the fact that the speech was given in front of a mixed audience in an economically depressed area of the country (Hobbs, NM) that would not consider education or local control of it a primary concern. In WCPD-2005-07-18-Pg1158 we can read, “We raised the standards, and we said to local school districts, Show us. That’s all we want to know. We want to know whether or not a child can read.” We have a federal imposition that is blunted by the remark “that is all we want to know” and the benefit of children who can read. The “all we want to know” corresponded to a vast increase in testing with its associated costs and expansion of the educational administrative structure. We will see in the analysis of the Congressional hearings how this “all we want to know” impacted teachers and school administrators.

Two years later the president stated at an elementary school that “We did not design a Federal test. . . . States . . . accountability systems, and . . . local account-

ability systems.” (WCPD-2006-01-16-Pg26-2) and “for those of you who think, well, the Federal Government has reached too far into the governance issue, it’s just not true. It’s not the case. As a matter of fact, quite the contrary; it makes sure that there was local control of schools.” It is understandable that to this type of audience the president would stress local control. A few days later, on 2006-01-19, the president made an almost identical statement “We didn’t design a Federal test; we just said, You design an accountability system.” (WCPD-2006-01-23-Pg80-2) He also stated “We expect you to measure. You notice I didn’t say, we expect you to administer the test we designed.” (WCPD-2006-05-01-Pg769-2), and “I believe in local control of schools, but I do believe in accountability.” (WCPD-2006-05-08-Pg838), and “I believe a Federal test undermines local control of schools.” (WCPD-2007-03-05-Pg238)

During this same period the U.S. Secretary of Education under President Bush, Margaret Spellings, made very similar conciliatory statements. For instance on 2006-04-06 during a House hearing titled “Building America’s competitiveness” (109hhr27978, Table 4.5 and Table A.29) she stated

The standards and assessment requirements of No Child Left Behind are, in fact, designed and intended to encourage mastery of challenging material and higher-order thinking skills. For example, the Department’s regulations governing the State assessments required by NCLB specifically state that these assessments must include “measures that assess higher-order thinking skills and understanding of challenging content.” However, decisions about how to structure the school day or year. as well as about the precise kind of teaching and learning required to meet challenging State standards, fall squarely within the realm of State and

local control over education. We do give States, school districts, and schools considerable flexibility in the use of Federal formula grant funds to support the kinds of adaptations you describe, but we leave it up to State and local authorities to decide what adaptations are appropriate for their unique circumstances.

At the beginning, regulations and obligations are general and designed to be widely accepted. Then the implementation takes place and then the give-and-take of all local administrative structures as well as national and local pressure groups will slowly but steadily over time add more and more detail and bureaucratic overhead. Examples of this phenomenon are the troubles with N-size (as we have seen in Subsubsection 5.4.2), teacher qualifications, and the distribution of funds. Consider for instance that the State of Connecticut sued the U.S. Department of Education because it wanted to test its children every other year instead of each year, as NCLB requires. See the statement of John C. Brittain, Chief Counsel and Senior Deputy Director, Lawyers' Committee for Civil Rights Under Law (109hhr28431, Table 4.16 and Table A.31) for a discussion of this legal action by the State of Connecticut.

As an indication of the snowballing of legal requirements of NCLB we can look at the calculations of the Adequate Yearly Progress of each school. A few years after the implementation of the law new ways for the AYP computations are proposed that would be more 'fair' and would be in line with 'local flexibility,' such as 'growth models' where the increase in test scores instead of simple score 'snapshots' would be used. However, growth models are more mathematically complicated and require more data. New computer systems would have to be purchased and maintained and additional data analysts would have to be added to school administration. Such problems were discussed on 2006-07-27 during a House hearing titled "No

Child Left Behind: Can Growth Models ensure improved education for all students?” (109hhrg28839, Table 4.5 and A.32).

President Bush did not make any pronouncements regarding the assessments of teachers. The reason was that NCLB did not require it. It required that all teachers be “highly qualified” in their subject of teaching. However, a later piece of federal education legislation, passed in July 2009 and called *Race to the Top* does require a form of teacher evaluation tied to the performance of the students. I would like to offer two comments on this regard. First, RTTT follows the clear trend of federalization of education by imposing even more requirements than NCLB does. Second, the educational policy in the U.S. is peculiar in that it is not overtly a piece of education legislation, but is always tied to something else. NCLB is a part of ESEA, which was part of Lyndon B. Johnson’s “War on Poverty.” RTTT in its turn is part of the “American Recovery and Reinvestment Act.” Why? Probably because of the residual effect of the fact that the constitution of the U.S. does not have any provision regarding education. Thus, the federal government has to provide at least lip service to this situation and place education legislation as part of something else.

President Barack Obama introduced RTTT to Congress and the federal Department of Education on 24 July 2009 (DCPD-200900595). There is a remark in this speech on the control of education and teacher assessments “If you set and enforce rigorous and challenging standards and assessments, if you put outstanding teachers . . .” There is also language by President Obama where the federal government explicitly demands that state education policy be changed. In a speech at a middle school he said “Any State that has a so-called firewall law will have to remove them.” (DCPD-200900884, 2009-11-04) The firewall law would be a state law that prevents the use of student test scores in teacher assessments. However, the administrative state based on neo-liberal principles requires it. All decisions have to be sound busi-

ness decisions and sound business decisions can only be based on ‘real’ data, that is numerical data. In line with giving the appearance of local control of education no federal legislation could outright demand a state to modify its own education legislation. However, it could ‘entice’ it to do so. The true and tested method by the federal government to do so is to use money, i.e. funding. State governments are almost always in need of more money. State governments are usually not allowed to run a gigantic budget deficit as the federal government may. They are also prohibited from printing money. This makes it practically impossible for state governments to ignore federal funding.

The U.S. Senate held a hearing on 2010-03-09 to discuss the ESEA re-authorization (111shrg55474, Table 4.4 and Table A.86). One of the presenters was a non American education expert, Andreas Schleicher, Division Head and coordinator of the OECD Programme for International Student Assessment (PISA) and the OECD Indicators of Education Systems (INES) programme. In his contribution he made interesting observations on how the U.S. education policy system compares with other ones when he spoke about the International Achievement Gap

Education systems in the industrialized world have improved more rapidly than the United States. Over the last decade, the United States has fallen from second place to 14th in terms of its college graduation rate. While primary-grade school children tend to do well by international standards, the latest PISA assessments show U.S. students performing below the OECD average. The United States also has a comparatively large achievement gap, which signals serious risks for students in their initial transition from education to work and of failing to benefit from further education and learning opportunities in their later life.

...

National educational standards have helped many of the top performing education systems in important ways to establish rigorous, focused and coherent content at all grade levels; reduce overlap in curricula across grades; reduce variation in implemented curricula across classrooms; and facilitate co-ordination of various policy drivers ranging from curricula to teacher training. Countries have often coupled the establishment of standards with devolving responsibility to the frontline, encouraging responsiveness to local needs. The United States is, of course, a decentralized education system too, but while many systems have decentralized decisions concerning the delivery of educational services while keeping tight control over the definition of outcomes, the design of curricula, standards and testing, the United States is different in that it has decentralized both inputs and control over outcomes. Moreover, while the United States has devolved responsibilities to local authorities, schools themselves have less discretion in decisionmaking than is the case in many OECD countries.

There seems to be a paradox in the U.S. education policy system where in an, at least nominally, decentralized structure, schools actually have less autonomy than in other more centralized education systems.

The descriptive statistics of the QDA codings of the Presidential documents confirms the pre-eminence given to the achievement testing of the students in the public schools. The code for the testing of students (*StudentAssess*) is ranked second (349) after the code for school reform (425, *SchoolReform*, Table 4.18). The cross-code table confirms the close relationship between school reform and student assessment by the fact that *StudentAssess* most closely overlaps with *SchoolReform* (Table 4.19).

The situation is similar for the Congressional hearings. The code for student assessment ranks 4th and the one for school reform ranks 2nd (Table 4.22, p. 152). The cross-code table shows a lower association of student assessment with school reform and a higher association with student achievement and the AGs (Table 4.23, p. 156). This is due to the fact that the majority of the Presidential documents are by President Bush, who insisted on tying school reform to student testing. In contrast the congressional hearings offer a large variety of views where and thus a higher correlation with other concepts.

The text mining of the President documents shows that the term ‘measur’ (stemmed), which in the rhetoric of President Bush is a proxy for student assessment, ranks number 8 among the most frequent terms (Table 4.27). The terms ‘results’ and ‘scores’ (unstemmed) rank 25th and 33rd, and the stemmed term ‘rais’, corresponding to e.g. ‘raise’ and ‘raising’ ranks 49th.

Finally, in the Congressional hearings the stemmed term ‘assess’ ranks 21st and ‘measur’ (stemmed) ranks 37th (Table 4.28).

5.4.6 *Control and Accountability*

The testing of students and the later assessment of teachers has to be understood within a larger administrative framework that is usually called “accountability.” The test scores have to be recorded and distributed. The data has to go into computer systems. Reports have to be written and sent to state and federal education departments. Parents have to be informed. Complex *calculations* are also made to assess the schools themselves. In accordance with NCLB, each year and for each school, it has to be determined whether it has or has not demonstrated **Adequate Yearly Progress**. States have to demonstrate to the federal department of education that all NCLB requirements are met. At the other end, in Washington, a structure has

to be created to read and respond to this large amount of data and information. It would not be difficult to imagine that within the States there would be opposition to this large increase in administrative complexity and its associated costs.

President William Clinton made in May 1999 a proposal for an ESEA reauthorization that prefigured NCLB in many respects, including school accountability (WCPD-1999-05-31-Pg964, Table 4.2). The law “would require States to hold school districts and schools accountable for student performance against State standards, including helping the lowest-performing students continually to improve.” In the same paragraph is mentioned the reason for this type of accountability, “narrowing the gap in achievement between disadvantaged students and their more affluent peers.” It is interesting that the only AG mentioned is the one based on income and no mention is made of race or ethnicity, gender, or proficiency in the English language. The bill was referred to the House Committee on Education and the Workforce where it died. It had 43 co-sponsors, all members of the Democratic Party⁷², but the Democratic House Representative co-author of NCLB, George Miller, was not among them.

Less than two years later (2001-01-23) President Bush would talk about accountability and educational control in a different way. President Clinton simply mentioned accountability without any explicit mention to local control, but George Bush would stress this concept when he said “If local schools do not have the freedom to change, they cannot be held accountable for failing to change. Authority and accountability must be aligned at the local level,” (WCPD-2001-01-29-Pg217). Why this difference? Probably to appease a more conservative constituency that would have been more sensitive to the U.S. policy tradition of local control education.

Again two years later (2003-01-08) the president would join accountability with local control, “high standards, accountability, and local control” (WCPD-2003-01-

13-Pg39). Then, in the same statement he would pair accountability with federal funding and stress its large amount. In a business transaction it is certainly fair to ask for something “In return for a lot of money.”

In a speech given to local politicians and school administrators (2004-05-11, WCPD-2004-05-17-Pg856), the president said “You need local control of schools so people who are making those decisions are accountable to the parents and the local citizens.” We see here a ‘local-accountability-local’ sandwich structure. Also notice that no hint was given about being accountable towards the central government. In this speech the president acknowledged the criticism of NCLB being an “unfunded mandate to put accountability systems in place.” He rejected this criticism, but made a concession by using the language of “largely funded by the Federal Government.” Largely is not completely, and even a small percentage can be a burden on a state or local budget. Why this, albeit small, concession? Probably the criticism has some validity. A few months later the president would twice state, “We believe in accountability. We believe in local control of schools.” (WCPD-2004-08-16-Pg1561 and WCPD-2004-08-23-Pg1631). This language was repeated in WCPD-2004-09-06-Pg1720, “We increased Federal funding, but we increased local control of schools and accountability across America so not one child is left behind in this country.”, in WCPD-2004-09-06-Pg1773 “demanding high standards, accountability, and local control of schools.”, and WCPD-2004-09-13-Pg1839-2, “accountability system to figure out who needs help early, before it’s too late. We believe in local control of schools. We know reading is the new civil right.” Notice how in the last statement the practice of accountability is buffered by appeals to the welfare of the children and social justice.

The president made two more electoral speeches in the Fall of 2004, where he spoke about accountability in this fashion. He asked for accountability in return

for funding, and for the benefit of the children. He also stressed local control (WCPD-2004-09-27-Pg2085, WCPD-2004-09-27-Pg2097). When the law had to be re-authorized and after being re-elected the president continued to underline that accountability is not a federal intrusion, but rather a local endeavor, in the following statements

The accountability system is, of course, devised by local people. (WCPD-2005-01-17-Pg45)

...

We said the States ought to develop their own accountability systems, and that local people ought to have input into the design of the State at the – of local accountability systems. And so for those of you who think, well, the Federal Government has reached too far into the governance issue, it's just not true. It's not the case. As a matter of fact, quite the contrary; it makes sure that there was local control of schools. (WCPD-2006-01-16-Pg26-2)

...

You design an accountability system. And it's working. We have an achievement gap in America that is not right and needs to be closed. (WCPD-2006-01-23-Pg80-2)

...

in return for money spent, we ought to – we have said to the States, “You develop an accountability system to let us know whether or not a child can read,” (WCPD-2006-04-24-Pg734)

...

accountability can be used effectively, particularly if it's designed at the local level. (WCPD-2006-05-01-Pg769-2)

...

I don't believe in federalizing schools. I believe in local control of schools, but I do believe in accountability. (WCPD-2006-05-08-Pg838)

...

in return for Federal participation, develop accountability systems so we know. (WCPD-2006-05-08-Pg838)

...

Local schools remain under local control. The Federal Government is asking for demonstrated results in exchange for the money we send from Washington. (WCPD-2006-10-16-Pg1765)

...

I don't think the Federal Government ought to design the test; the people of North Carolina should design the accountability tests. (WCPD-2006-10-23-Pg1837-2)

...

It ought to be your accountability system; after all, it's your schools. (WCPD-2007-03-05-Pg238)

...

I believe strongly in local control of schools, but I also believe in raising standards and holding schools accountable for achieving results. (WCPD-2007-03-19-Pg338-2)

As is to be expected, this discourse on accountability was not very different from his Secretary of Education. Margaret Spelling was invited to present at a House hearing on K-12 mathematics and science education (109hhrhg27978, 2006-03-30, Table 4.5 and Table A.29). As we can read in the following excerpt the themes of President Bush on accountability are present

Schools are being held accountable for results. Parents have more information and choices. And states have more flexibility to spend federal K-12 education resources, which have increased by 41 percent since 2001.

The president was willing to admit that the accountability system, even though ‘local’ was not working as it should. He said to a group of teachers and parent in 2007-04-24

when Republicans and Democrats take a look at this bill, I strongly urge them to not weaken the bill, not to backslide, not to say, accountability isn’t that important. It is important. We’ll work with the school districts on flexibility when it comes to the accountability system. And I mean that there are certain ways that we can make this – the accountability system actually work better than it’s worked in the past. (WCPD-2007-04-30-Pg515)

However, that has not wavered his resolve for strong accountability to the federal government. In 2009-01-08 the president stated, “Local schools remain under local control. In exchange for Federal dollars, however, we expect results. . . . we hold schools accountable for meeting the standards.” (WCPD-2009-01-12-Pg22-3)

The text mining analysis confirms the close relationship between accountability and NCLB. In the Congressional hearings the terms most closely related to ‘account’,

the stemmed equivalent of accountability are ‘system’ (0.31), ‘held’ (0.24), and ‘nclb’ (0.23, Table 4.30, see also Figure 5.4). Such a close relationship does not appear in the Presidential documents, but the term ‘weaken’ (0.19, Table 4.29, see also Figure 5.48) refers to President Bush’s appeal not to weaken the accountability requirements of NCLB (Subsubsection 5.2.2).

5.4.7 *Control and School Interventions*

A more incisive aspect of the *administrative state* in the problematic of the achievement gaps is the increasingly more drastic interventions to change, ‘reform,’ certain schools as specified by NCLB. These interventions range from extra funding all, the way to the dismissal of faculty, management and staff, and even permanent closure of the school itself (Figures 5.49 and 5.50).

In the early statements about this aspect of NCLB, President Bush used very veiled terms when he mentioned school interventions and often in conjunction with affirmations of local control. On 2001-01-23, a couple of weeks after the signing of NCLB, the president stated “If local schools do not have the freedom to change, they cannot be held accountable for failing to change.” (WCPD-2001-01-29-Pg217, Table 4.3) Thus, it is the schools that change themselves in they way that they deem appropriate. About three years later, on 2004-08-11, the language is slightly more incisive “We believe in local control of schools. We believe in challenging schools that refuse to change and refuse to teach.” (WCPD-2004-08-16-Pg1561) Notice that a restatement of local control is countered, albeit only implicitly, by an affirmation of central control. This affirmation is given in a very oblique fashion using the terms ‘believe’ and ‘challenge.’ The action is justified by using language that implies a stubborn refusal to help children. We have the rhetorical structure ‘local-central-reason.’ Similar language is used a few days later on 2004-08-17, “And when we

find schools that will not teach and will not change, we're bold enough to challenge the status quo." (WCPD-2004-08-23-Pg1631) The president would reuse this type of discourse in the following month (WCPD-2004-09-06-Pg1750, WCPD-2004-09-06-Pg1757, and WCPD-2004-09-06-Pg1773).

However, not all authors used such type of indirect language. For instance Joel Klein, the Chancellor of New York City public schools system, said the following during a House hearing titled "NCLB: Can growth models ensure improved education for all students?" held on 2006-07-27 (109hhrg28839, Table 4.5 and Table A.32)

Mayor Bloomberg and I have been very tough on accountability. We eliminated social promotion in our elementary and middle schools. We shut down failing high schools. We created "Empowerment Schools," schools whose principals receive greater autonomy in exchange for entering specific performance contracts agreeing to be held accountable for results. More than 300 principals volunteered, knowing that they could lose their jobs if they were unable to raise student achievement.

How could we explain this difference in tone? Joel Klein had the full support of Mayor Michael Bloomberg (Republican). The office of New York mayor had acquired control of the NYC school system from the State in 2000. His affirmations of local authority were in line with the U.S. political tradition. In addition, it should be noted that Joel Klein is not an education professional, but a lawyer and that he is applying neo-liberal policies.

The following year, in 2007, the president gave three speeches where he acknowledged that this provision of NCLB had become very controversial. President Bush stated that "principals ought to be given additional staffing freedom" (WCPD-2007-04-30-Pg515), which is an euphemism for the dismissal of teachers. Also he said "I

know some Members and Senators have got concerns about the law for the sake of the country, for the sake of kids who deserve better, we expect you to change.” (WCPD-2007-07-02-Pg858) Similarly, Peter McWalters, Commissioner of Elementary and Secondary Education of the State of Rhode Island, stated during a House hearing (110hhr34015, 2007-03-21, Table 4.5 and Table A.50) that the House of Representatives for its re-authorization of ESEA

consider revising the prescribed sequence of mandated responses to Title I schools that have been identified for improvement so that states can develop graduated support and intervention strategies that best meet the needs of each identified school.

The following president, Mr. Barack Obama, took distance from the type of discourse of his predecessor. For instance, he said on 2009-07-24 “Change will come from the bottom up.” (DCPD-200900595) Not even a hint was given of any type of federal or even state intervention. In a similar discourse of a few months later (2009-11-04), the president presented a hierarchical ladder that only reaches up to the school district, the threshold of what can still be accepted as ‘local control.’ He said

Now, that’s how teachers can determine what they should be doing differently in the classroom. That’s how principals can determine what changes need to be made in our schools. And that’s how school districts can determine what they need to be doing better to prepare our teachers and principals.

In the next paragraph the president even referred to socio-economic conditions of the local school, that would overwhelm the capacity of even the most capable and dedicated educators, which is something that his predecessor has not done

here are some schools that are starting in a tough position: a lot of kids coming from impoverished backgrounds; a lot of kids coming in that may have not gotten the kind of head start that they needed; they start school already behind. And even though there are heroic teachers and principals in many of these schools, the fact is that they need some extra help.

However, then a completely different rationale appears that is in contradiction with what has just been said

We'll look at whether they're willing to remake a school from top to bottom with new leaders and a new way of teaching, replacing a school's principal if it's not working and at least half its staff, close a school for a time and then reopen it under new management, even shut down the school entirely and send its students to a better school nearby.

This statement is quite unexpected, especially considering that the audience was a middle school. Not even President Bush was so explicit. In the following year (2010-07-29) the president would make a much more conciliatory statement

This isn't about unlike No Child Left Behind, this isn't about labeling a troubled school a failure and then just throwing up your hands and saying, well, we're giving up on you. It's about investing in that school's future and recruiting the whole community to help turn it around and identifying viable options for how to move forward. (DCPD-201000636)

President Obama tried to distance himself from NCLB even though the provisions of RTTT are actually more stringent and drastic than NCLB. It seems that political affiliation does not really matter. The *administrative state* appears to have a life of its own and keeps on growing.

The above mentioned speech mentions charter schools as an option for school restructuring. One could consider the conversion of a school from traditional to charter to be a retreat of the *administrative state*. Indeed, these are administratively independent schools and are a form of privatization. However, this phenomenon has to be understood within the framework of Foucault's first definition of *governmentality*. Namely, it should be framed within the concept of the *technology of the self*, where the government relies of self-control and personal responsabilisation of the individual to conduct the affairs of the state (Subsection 2.4, p. 51 and Subsection 5.2, p. 173).

The de-emphasis of the punitive aspects in the political discourse on education reform is confirmed by the low ranking of the related QDA codes, *SchoolFixClose*, *SchoolCharter*, and *TeacherReplace* (Figures 5.49 and 5.50). In the Presidential documents collection the first code is ranked 28, the second one 32, and the last one 35 (Table 4.18).

5.4.8 Section Summary

In this subsection we have thus seen that there has been an unstable equilibrium between the center and the periphery, and that this equilibrium has been shifting towards the center over time. The federalization has been supported by people of differing ideologies. Those more concerned with social justice appealed to the authority of the central government to force the states and local school districts to implement more egalitarian policies. Those, instead, more concerned with neo-liberal principles would through national policies force the states and local school districts to implement free market style policies.

I have examined in particular detail the policy discourse of President George Bush and have highlighted the rhetoric of balancing the centripetal expressions with centrifugal ones (Figure 5.51).

Then we examined how the state of the U.S. economy has been used to justify public education policy. The first time that this connection was made in public discourse was in 2007 by President Bush. He would mention global competition and the importance of science and technology several times since then. Others appealed to the global, knowledge-based economy to encourage federal intervention in public schools to reduce the achievement gaps and the high school dropout rates.

We have noticed a trend over time in the discourse about the federal funding of education and its connection to the AGs. Funding by NDEA to address one issue of the IAG was targeted, short in duration, and imposed a limited administrative burden on the recipients. On the other hand, funding by ESEA had a much broader target, an open-ended duration, and required a significant amount of bureaucracy. The 2002 re-authorization of ESEA, NCLB, would greatly increase both the amount of funding as well as the administrative complexity of the funding process.

We examined the discourse by President Bush in the federal funding of education and the AGs and found several themes, (1) those who receive federal funds are obliged to the federal government and have to meet its demands, (2) those demands are expressed in business terminology, (3) federal funding of education should be kept as low as possible, (4) any such increases are justified only because of (5) the new requirements of accountability, and (6) the new global economic environment.

There is another theme in the funding policy discourse vis--vis the AGs, but it does not have the same political weight of the preceding ones. It is about the issue of the structural financial inequity of the public school system in the U.S. also called “funding inequity” or “inequitable funding.” The literature is not in agreement about its effects. Peevely (1999) in a non peer-reviewed report found no effects for funding equalization in Tennessee. Others believe that, even if funding inequity does not cause the AGs, the establishment of equitable funding is necessary to eliminate the

AGs (D. Hall, Ushomirsky, & Education, 2010). Some simply believe that poverty is the cause of the AGs (Bireda & Center for American Progress, 2011; Harris & Arizona State University, 2006).

We have seen that Senator Michael Enzi wanted to uncouple the issue of inequitable school funding from the NCLB school reform. Indeed, as we will discuss in later (Subsection 6.1), Section 1906 of NCLB states

Nothing in this title shall be construed to mandate equalized spending per pupil for a State, local educational agency, or school.

Nonetheless, statements were made in favor of the funding equalization by the National Urban League and the National Education Association, but not by political figures.

We have seen that the other side of federal funding of education is the assessment of the students that are receiving this funding. We have also seen how NCLB requires that these test results be “disaggregated,” that is averaged according to a classification that takes into account income, ethnic group, race, and English proficiency. These numbers would then be used in reporting and the decision whether Adequate Yearly Progress has been attained. The AGs are now not merely a figure of speech, or a sociological concept but rather an integral and central part of federal education legislation.

As we have seen, the *procedure* testing was presented as an useful tool for teachers and schools and that it would benefit the students. In reality it was a *calculation* that would determine whether a school would be in “need of improvement” with all its associated (mostly) negative consequences. No surprise that this part of NCLB would prove to be the most controversial one and has caused several heated controversies. Among these controversies is the fashion by which the AYP is determined and often

involved fine points of statistics or a drastic change in the evaluation criteria such as by the introduction of “growth models.” There have been concerns voiced about the cost of all this testing, but the largest critique has been on how it has affected the practice of teaching, especially in schools that were the farthest from AYP status.

The major piece of education legislation that followed NCLB was called “Race to the Top.” RTTT introduced the obligation to assess the teachers by (also) using the test scores of their students. We discussed how this innovation is the logical consequence of the increasing use of business principles in all fields of public administration, including public schools and we observed how the public education in U.S. is very decentralized with the anomaly that the actual schools have very little autonomy with respect to the school districts and state educational agencies (pp. 353–354).

As we have seen here, student assessment is required by the conceptual framework of “accountability,” a desire to couple public expenditures to the results of these disbursements and thus establish a proxy of a free market, the only mechanism that according to the classic economics principles that were integrated into neoliberal policy, can guarantee efficiency and optimal functioning. A modern, technological society that exists in today’s brutally competitive global environment cannot afford to operate at anything but optimal level.

We looked at several pronouncements by President George Bush and his education secretaries and analyzed their rhetoric. With the just mentioned above concept of “accountability” as a “proxy” or “surrogate free market” mechanism in mind, we realize that all the components of NCLB that implement accountability, i.e. testing, reporting, AYP, research-based instruction, school interventions, and parental choice, were conceived to activate or mimic market forces within the public education system and thus create a Foucaultian “apparatus of security.”

One may wonder how accountability found such a widespread support and NCLB has truly been inter-partisan legislation. I think that the answer has been by pairing it with the decision to eliminate the AGs. This “marriage of convenience” appealed to many who due to their desire for social justice believed it be their best chance for the resolution of the achievement gaps.

Based on Foucault’s governmentality, I consider this union to be unnatural because the use of *apparatuses of security* are antithetical to the complete elimination of social problems. It is the “régimes of discipline” that have the goal of complete control of human behavior and need a very complex and costly machinery to achieve this goal. It is precisely the cost of the régimes of discipline that make them vulnerable in a competitive and global environment.

The last aspect of the process of transformation of the “state of justice” into the “administrative state” that we examined was the application of “corrective actions” that in the framework of accountability were to be applied when schools consistently do not attain AYP. We have looked at the rhetoric on these corrective actions and how they were only indirectly referred to initially at the center. Many in the teaching workforce and among education researchers and activists have criticized these actions and labeled them “punitive,” “unfair,” “ineffectual,” and “unreasonable.” But almost all politicians including the current ones have supported them. According to our observation that NLCB first and RTTT later have tried to establish a proxy free market in the public school system, these corrective actions are absolutely necessary to “close the loop.” In a free market the customer is free to choose an option and thus has to be free to reject others. Clearly the dismissal of school staff, the closure of schools, and the establishment of charter schools are stand-ins for customer choice, called “parental involvement” in education reform.

In this section we have thus examined the data sources and woven a series of

narratives based on the three dimensions of Foucault's governmentality. In the next and concluding section, we will try to distill from these narratives their most salient aspects.

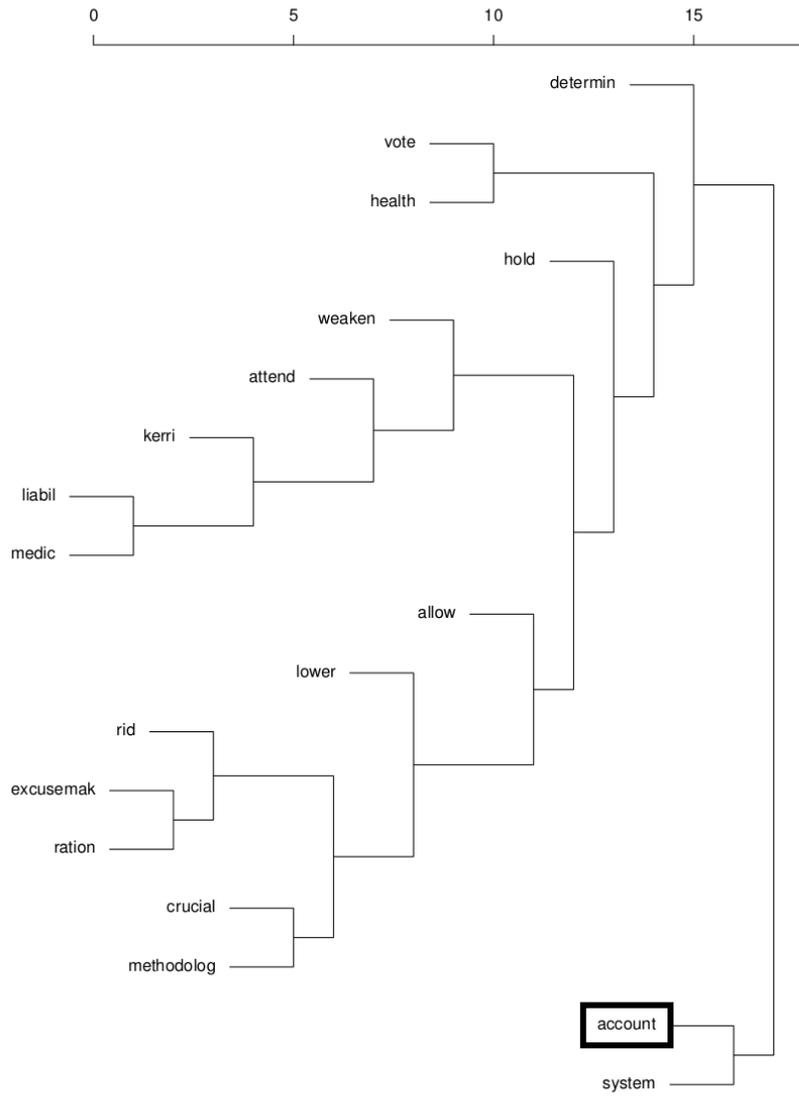


Figure 5.48: Presidential Documents - Dendrogram of “account”

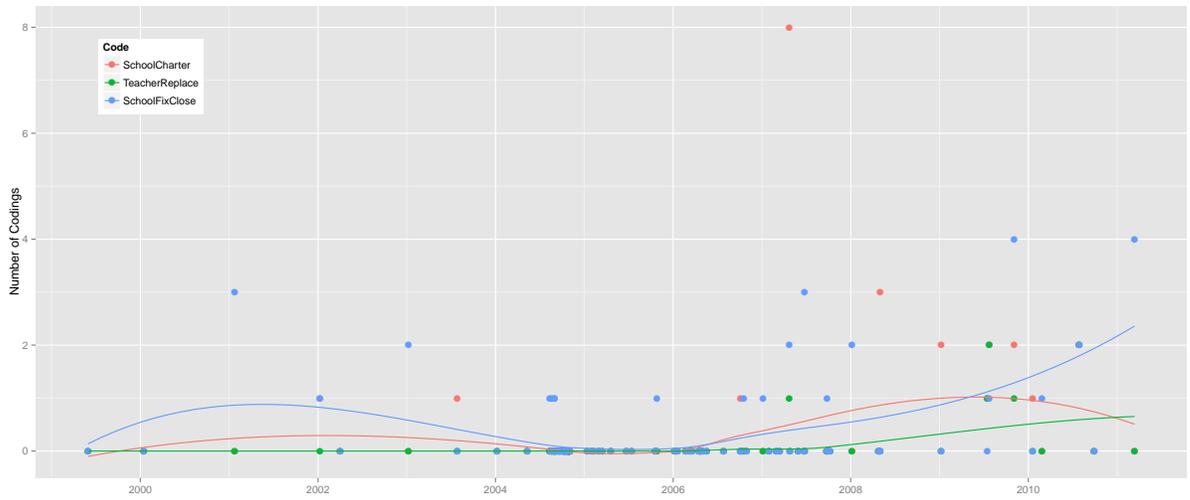


Figure 5.49: Presidential Documents - School Interventions and Teacher Replacement

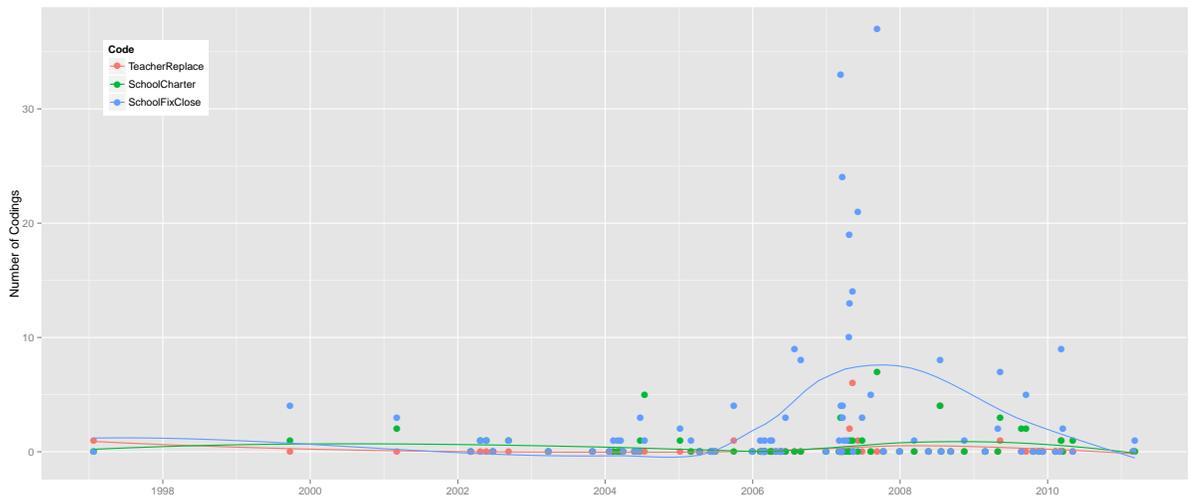


Figure 5.50: Congressional Hearings - School Interventions and Teacher Replacement

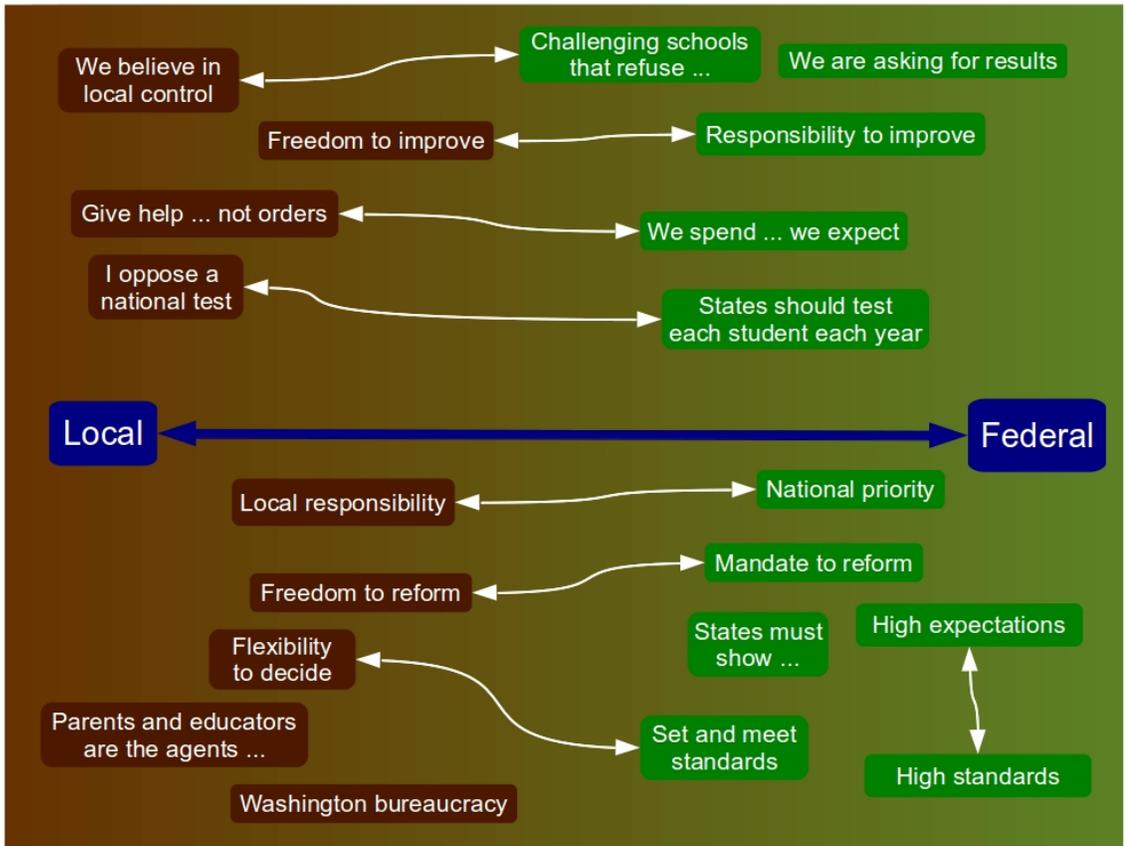


Figure 5.51: Bush - Local versus Federal Control

6. CONCLUSIONS

Having created in the previous section (5) a series of narratives based on the three dimensions of Foucault's governmentality, I would like in this section to (1) crystallize them into a more condensed or abstracted "answer to the research question" (Subsection 6.1), then (2) offer some personal thoughts about the nature and the causes of the achievement gaps, and some possible solutions (Subsection 6.2), and (3) conclude by offering some suggestions on future research (Subsection 6.3).

6.1 The Crystallization of the Narratives

In this subsection I provide answers to the research question, "how can Foucault's concept of governmentality help us understand the policy discourse at the federal level about the achievement gaps?", to crystallize the narratives (Richardson & Pierre, 2005, p. 963). Denzin and Lincoln (2005, p. 6) stated that "in the crystallization process, the writer tells the same tale from different points of view." In the present case, the points of view are the "lenses" that I fashioned according to the three definitions of governmentality given by Foucault himself (Subsection 2.4, Figure 2.5, p. 52). I called the first lens the "ensemble" (Subsection 5.2), the second lens the "tendency" (Subsection 5.3), and the third lens the "process" (Subsection 5.4).

6.1.1 *The Ensemble*

I based the first lens on the first definition by Foucault of governmentality, the "ensemble" being *formed by the institutions, procedures* (Subsubsection 5.2.2), *analyses and reflections* (Subsubsection 5.2.3), *the calculations and tactics* (Subsubsection 5.2.4) *that allow the exercise of this very specific albeit complex form of power, which has as its target population* (Subsubsection 5.2.5), *as its principal form of knowl-*

edge political economy (Subsubsection 5.2.6), and as its essential technical means *apparatuses of security* (Subsubsection 5.2.7).

I gave in Subsubsection 5.2.8 a recapitulation of the narrations that I had woven from the components of this dimension of Foucault's governmentality. There we looked more closely at the *procedures, calculations and tactics*, and *analyses and reflections* and noticed how these components interact with each other. The effects and efficacies of procedures are analyzed and reflected upon, thereupon existing procedures are modified or new procedures are created that follow certain established or new calculations and tactics. During each iteration the number of **calculations** and **procedures** is expanded as they become more capillary, pervasive, and encompassing. Here I will revisit these observations and expand on them (Figure 6.1, p. 376).

Foucault (2009, pp. 299–306 and 314–315) stated that the expansion of the governmental functions is caused by the competition between European nations (C. Bell, 2005, p. 2). If a nation is to survive in a competitive environment, it has to become more and more efficient. An arms race can only be sustained by an underlying economic-technological race. The U.S.S.R. fell because it could not keep up in such a race, and China completely changed its economic policies to survive. For a more historically and theoretically rigorous description of this phenomenon one can examine the "World-systems Theory" by Wallerstein (2004). This theory categorizes nations into "core," "semi-periphery," and "periphery." In general the economies of the core countries concentrate on high skill, capital intensive production while the economy of periphery countries focus on low skill, labor intensive production. Countries in the semi-periphery have intermediate characteristics. In Figure 6.2⁷³ notice Russia as a periphery and China as a semi-periphery country. What is important to keep in mind is that this system is dynamic and countries over time can change their

position in the classification. In other words, a country can change from periphery all the way up to core, e.g. China and South Korea, or be demoted from core to a lower status, e.g. Russia recently, or the eastern Mediterranean countries in the Middle Ages.

In Subsubsection 5.4.3 we discussed how the concern about the standing of the U.S. economy has been an important component of the policy discourse on the AGs. Several statements indicated a sense of insecurity, a worry about the standing of the U.S.A. among the “core” countries.

We have just seen how Foucault considered the emergence of a modern type of government as a consequence of international competition. Those nations that would increase their economic and technological efficiency vis-a-vis other nations, would survive, prosper, and even expand to maintain or obtain the status of “core country” (Wallerstein, 2004). Modern warfare required technological capabilities and a thriving economic basis. The world changed from a condition where “the civilized would fear the barbarians” to one where “the barbarians would have to fear the civilized.” Only those who produced metal alloys and precision machinery could participate in the arms race.

Certainly, the arms race was the main incentive for the passing of the National Defense Education Act (NDEA) of 1958 (Subsection 5.3). However, Foucault’s observation was more applicable to European nations that were, relative to the U.S.A., small and vulnerable. On the contrary, the U.S.A. is surrounded by nations that were often willing to surrender their land to maintain peace with it. The most notable historical examples are the Oregon Treaty of 1846 with Britain, the Treaty of Guadalupe-Hidalgo of 1848 with Mexico, and the Isthmian Canal Convention of 1903 with Panama. Similarly as we have just mentioned, until recently its economic prowess has been no match for any other country in the world. Thus, the rhetorical

emphasis of national education reform (ESEA, NCLB in part) has been on social justice, a more pressing social issue. Nonetheless, as we have seen previously (Subsubsection 5.4.3), once the economic leadership of the U.S. was placed into question, the focus of the political discourse quickly shifted away from social justice to the national economy and international competition. One of the emphases of NCLB that was not present in ESEA was the call to efficiency in the form of demand for a return on the investment of public funds (Subsubsection 5.2.2). We have seen that it was not denoted by those terms, but that instead the more socially acceptable expression “accountability” was used.

An efficient government is not “more” government. Actually, often it is less government. As Foucault explained (2009, pp. 70–75, 383, and 2010, pp. 320–321), a movement arose in Europe to limit government regulation in favor of the “natural” regulation of the market forces. However, just as Foucault envisioned a “counter-conduct” (2009, pp. 201–202), which is a reaction to a governmental policy, we have discerned a reaction to the application of market mechanisms in public schools. Note that the reaction is not against the government in itself, but rather against a specific policy. The role and authority of the federal government in public schools is not placed in question, just a particular course of action. The opposition is between those who intend to manage public schools by the application of market forces through legislation in order to establish a “natural” equilibrium, not unlike all other aspects of a modern society, and those who desire to apply the principles of social justice and equity to public schools through legislation and the court system. We should be aware, however, of a larger thematic that only is hinted to in the source documents, which is the federal involvement in public education. There is absolutely no constitutional support for any federal action in this field. Historically, any such action has been framed within a national defense (NDEA), social justice (ESEA), or

economic recovery (RTTT) context. We have seen in Subsubsection 5.4.2 how careful President George W. Bush was when he spoke about federal education legislation. Many conservative politicians reject any federal role in public education, but have to be circumspect and thus rhetorically “oblique” because no local education agency is going to forfeit federal contributions, no matter their constitutional status, or how onerous and disruptive the associated administrative burdens are.

Market forces only operate virtuously in a “level playing field,” or in economics terminology, in a “perfect market.”⁷⁴ Schools are locally financed and thus dependent on the local tax base. Hence wealthier schools can and indeed do offer higher salaries and thus attract better teachers (see the presentations and discussions in Congressional hearings 107shrg79941 and 106hhr59654). Interestingly, President Bush repeatedly recognized the importance of a level playing field when he spoke about international trade (WCPD-2004-09-13-Pg1819, WCPD-2004-09-27-Pg2085, WCPD-2004-10-18-Pg2344, WCPD-2005-02-14-Pg187-2, WCPD-2006-01-09-Pg12, WCPD-2006-01-23-Pg80-2, WCPD-2006-03-13-Pg434, and WCPD-2006-05-01-Pg769-2), but does not do so when speaking about educational reform, even though these statements were made during the same speech.

As we will discuss later (Subsection 6.2), the application of “apparatuses of security” to public schools without a concomitant equalization of funding will most likely not solve the AG crisis. Indeed, in educational policy the issue is more complicated than the simple question of more regulation and more public funding versus less regulation and less funding. We have seen how ESEA required far less regulations, rules, reporting and funding than NCLB. The drive to establish “accountability” required an increasingly capillarized intervention of the federal government on local schools. This all was accompanied by an expanded bureaucracy and concomitant funding. One may wonder whether a simpler, less refined, less elaborate system would have

channeled more money to schools and thus would have resulted in better results.

In Subsubsection 5.2.3 we discussed the shift in policy understanding from where differences in the quality of the schools were a natural phenomenon outside of the public consciousness, to where the duty of the federal government was to eliminate or at least mitigate them. From there, once this duty of the federal government was an entrenched aspect of educational policy, this *analysis and reflection* shifted from equal school quality, and thus equal opportunity, to equal educational outcomes. A concept that was a “natural” progression of the social justice movement in the U.S.A.. Accountability is the central *tactic* of NCLB, but the main purpose of the law is full educational proficiency of all students. We should keep in mind that the original ESEA never achieved equal school quality, probably because it never actuated the funding level that would have been necessary to equalize school budgets across the nation. NCLB did increase federal funding, but still not to sufficient levels, even without considering that NCLB raised school operating expenses due to the costs associated with testing and reporting. Nonetheless, by the end of the period of our analysis, it seemed the political discourse had uniformly accepted that all public school students should not only have the same opportunity, but also the same educational outcomes.

Foucault’s governmentality does not *prima facie* explain how conservative politicians would have agreed to such policy. However, by adopting the Race Critical Theory concept of “convergence of interest” one is able to shed some light on this phenomenon. D. A. Bell (1980, p. 523), who introduced the concept (Subsection 2.4), stated the principle as

The interest of blacks in achieving racial equality will be accommodated only when it converges with the interests of whites.

...

Racial remedies may instead be the outward manifestation of unspoken and perhaps subconscious judicial conclusions that the remedies, if granted, will secure, advance, or at least not harm societal interests deemed important by middle and upper class white. Racial justice – or its appearance – may, from time to time, be counted among the interests deemed important by the courts and by society’s policymakers.

The author identified as probable causes of the outcome of “Brown versus Board of Education” the ideological competition of the U.S. with the U.S.S.R.. Bell quoted *Time* magazine, which stated that segregation damages “U.S. prestige and leadership” in the world. Communist and socialist ideology had become a significant factor in the social and political sphere of Europe and Latin America. It was certainly more than a hypothetical possibility that the anger and alienation among African Americans could create great social unrest and the growth of leftist political parties in the nation. In addition, Bell stated that it was perceived that segregation in the South would hinder the “transition from a rural, plantation society to the sunbelt with all its potential and profit.”

The “No Child Left Behind Act” of 2001 (enacted in 2002) was a very complex law that contained elements that were relevant and important for a wide spectrum of interest groups (Penfield & Lee, 2010). A functional public school system is for the Left an inalienable civil right, and for the Right and a necessary investment to obtain a minimally capable workforce and a means to reduce social strife. The explicit objective of the law was to eliminate the AGs. Very few would disagree with this principle. Not only it is an obvious *egalitarian* goal, but also would ensure that all high school graduates possess a minimum of work skills and capabilities. The

increase in funding, which would please the Left, was combined with the principle of “accountability,” which would interest the Right. As discussed in the previous subsection, the concept of accountability is consonant with the neo-liberal principles of government that have become increasingly popular in western democracies. These principles entail the containment of the functions of the government with the transfer of control from the “outside” to the “inside” of the citizenry (Foucault, 2009, pp. 31–40). Later Foucault (2010, p. 296) called this “self-limitation” of the government as explained in the following quote (2010, p. 296)

Civil society is, I believe, a concept of governmental technology, or rather, it is the correlate of a technology of government the rational measure of which must be juridically pegged to an economy understood as process of production and exchange. The problem of civil society is the juridical structure (*économie juridique*) of a governmentality pegged to the economic structure (*économie économique*).

This is how I, based on Foucault’s writings, understand the principles of neo-liberalism as a theory of government. The judicial (legal) structure of a nation is an expression of its economical structure. Ideology must eventually bow to economics, or more precisely, the creation of an economically efficient and productive, hence capitalistic, nation **has** become the ideology. Of course no trends are complete and unique. Thus in education policy there is a blending, confluence, interaction, and even tension, confusion, and conflict between several currents of thought. Foucault is not a Marxist (Kenway, 1990, p. 172); power is not the oppression of the masses by the lite. Power is capillary, creative, formative, and all participate in its exercise (Scheurich & McKenzie, 2005, p. 855). Thus, NCLB contains language that affirms flexibility and local control and at the same time directs and restricts the public

school systems.

According to C. Bell (2005, p. 5)

Foucault linked the deployment of biopolitical techniques – which work to invest, enhance and modify life – with the emergence of governmentality which sought to govern citizens in new ways that are distinct from authoritarian rule and “most especially through acquired habits of self-control, reinforced by the normative gaze of others and the work of a variety of state and non-state agencies.” Governmentality is aimed at forms of knowledge that have traditionally separated the domain of the state from other spaces by operating through the self-governing capabilities of individuals, spaces, and categories. Biopolitics is thus a specifically liberal method of governance that is informed by the limited role of the state as a coherent apparatus, in favour of governance ‘at a distance.’

It is in this Foucaultian conceptual framework that I interpret the heavy emphasis on “accountability” in the speeches by President George W. Bush and its central place in NCLB. It functions as a surrogate, a proxy, of the internalization of government, a “technology of self,” the assumption of personal responsibility in society. The president would often use the term “culture of (personal) responsibility” (WCPD-2004-05-17-Pg856, WCPD-2004-08-16-Pg1561, WCPD-2004-08-23-Pg1631, WCPD-2004-08-30-Pg1679), and more specifically “Schools have a responsibility to improve” (WCPD-2003-01-13-Pg39). However, as Foucault explained, personal responsibility as a technology of self cannot be imposed by fiat, but has to be assimilated into the culture. Hence, the imposition by NCLB of accountability as a proxy for self-conduct created an unsolvable tension that predetermined the demise of the school reform.

I offer as personal speculation my conviction that such wide agreement to recent

education reform that has at its center the aim to eliminate the achievement gaps, is the strategy through accountability and corrective actions of converting schools systems that are controlled by teacher unions, and thus Leftists, to a network of privately run charter schools, being this an acceptable alternative to the abolition of the public schools. We should also keep in mind that most of the key people in educational legislation, even those that sincerely support public education, have not attended public schools and are likewise not sending their children to them.⁷⁵ Hence their children are not placed on the hamster wheel of continuous assessments, whose teachers do not have a sword of Damocles hanging over them, and who do not have to share a classroom with ‘difficult’ students. Politicians direct from a distance the public school system and observe without any direct personal involvement its evolution.

According to NCLB, corrective actions need to be applied to Title I schools that fail to achieve “Adequate Yearly Progress” for two consecutive years. AYPs are the outcomes of complicated calculations based on a combination of student assessment scores and demographic statistics. We have looked previously at these statistics and calculation in Subsubsection 5.2.4 where I discussed *calculations and tactics* and later in Subsubsection 5.4.2 where we examined the phenomenon of federalization of public education. We have seen fierce disputes on the details of these calculations, such as for example the N-size (p. 330), which may seem very abstruse to us, but have large effects on the schools themselves. Foucault (2009, pp. 101, 104, 274) has repeatedly shown the strong connections between the practice and application of statistics and the government of a modern nation. He then presented on pages 104–105 an effect of the pervasive application of statistics that I consider relevant to our discussion on the AGs. These pages describe the fading of the families as a factor in the administration of the state. Foucault wrote that

Statistics also shows that the population also involves specific, aggregate effects and that these phenomena are irreducible to those of the family ...

The family will change from being a model [for good government] to being an instrument ...

What enables population to unblock the art of government is that it eliminates the model of the family.

Schools have departed from being local, family based and family controlled, thus basically an extension of the family and are now based on an industrial model where they are an extension of the state for the benefit of commerce and industry. Families are little more than a tax base and a source of volunteer work. However, this is in tension with the principles of governmentality according to which the population has an active role in society. Foucault (2009, p. 73) said

As Quesnay says: You cannot stop people from living where they think they will profit most and where they desire to live, because they desire that profit. Do not try to change them; things will not change. However – and it is here that this naturalness of desire thus marks the population and becomes accessible to governmental technique ...

Indeed, often President Bush appealed to the power of families to *choose* that which NCLB would have introduced. We described how the education reform attempted to introduce market forces in public education according to neo-liberal principles (Subsubsection 5.4.8). When NCLB was introduced traditional public schools controlled the lion's share of K-12 education. That situation has been slowly but steadily changing with the growth of charter schools. This phenomenon is independent of NCLB and RTTT or of any other school reform project. However, I am of

the opinion that the apparently surprising lack of protest from the Right present in the sources that I have examined about what is now the evident failure of NCLB is at least in part explained by the fact that the traditional public school system is being hollowed out by the unabated growth of the charter school system, which, even if not a “pure” private school system, is sufficiently and thus acceptably close to it. An alternative explanation of this lack of protest from conservative politicians in the source documents is that because NCLB was a joint Bush/Kennedy creation, the Right never “owned” it.

At any rate, up to recent times the national “emergency” of the AGs has been used as a catalyst for public school reform according to neo-liberal principles. Instead nowadays the AGs are only invoked when a particular school needs to be closed or converted to private management or to attack the teacher unions or government interference.

Returning to the *calculations and tactics*, the careful and constantly expanding measurement and reporting of students throughout their K-12 career presupposes and enforces the division into groups so important in the government of population (Kenway, 1990, p. 174, see below Subsection 6.3). Almost every administrative form used in schools presupposes the division of the population into distinct races and ethnic groups. As B. Baker (1998, p. 131) wrote

By defining groups in particular ways and maintaining records that gave material qualities to the construction of groups, populational reasoning “normalized” certain characteristics. What were socially constructed criteria appeared in time as “natural attributes” (e.g., “racial characteristics”). The historical and cultural specificity of the reasoning became submerged, and the appearance of the criteria as “natural” became re-

inforced through scientific techniques that were built around gathering data about the attributes.

As we have seen previously (Subsection 2.3), Parks (2009, p. 15) stated that the dis-aggregated measurements of the students “do not simply measure what is true; they produce it.” Martinez (2011) noted, as we have done previously, that NCLB

relies heavily on racial data collection procedures, and these procedures have taken on a greater significance given the consequences for schools that fail to report adequate yearly progress for racial (and other) sub-groups on standardized tests. (p. 2)

She noted that Latino/a students often are “subgrouped” three times, as ethnically Latino/a, English Language Learners, and also as SES disadvantaged. She described how ambiguous and unreliable these data are and concluded by stating that “Measuring race is not an exact science, it is a political science.” (p. 13)

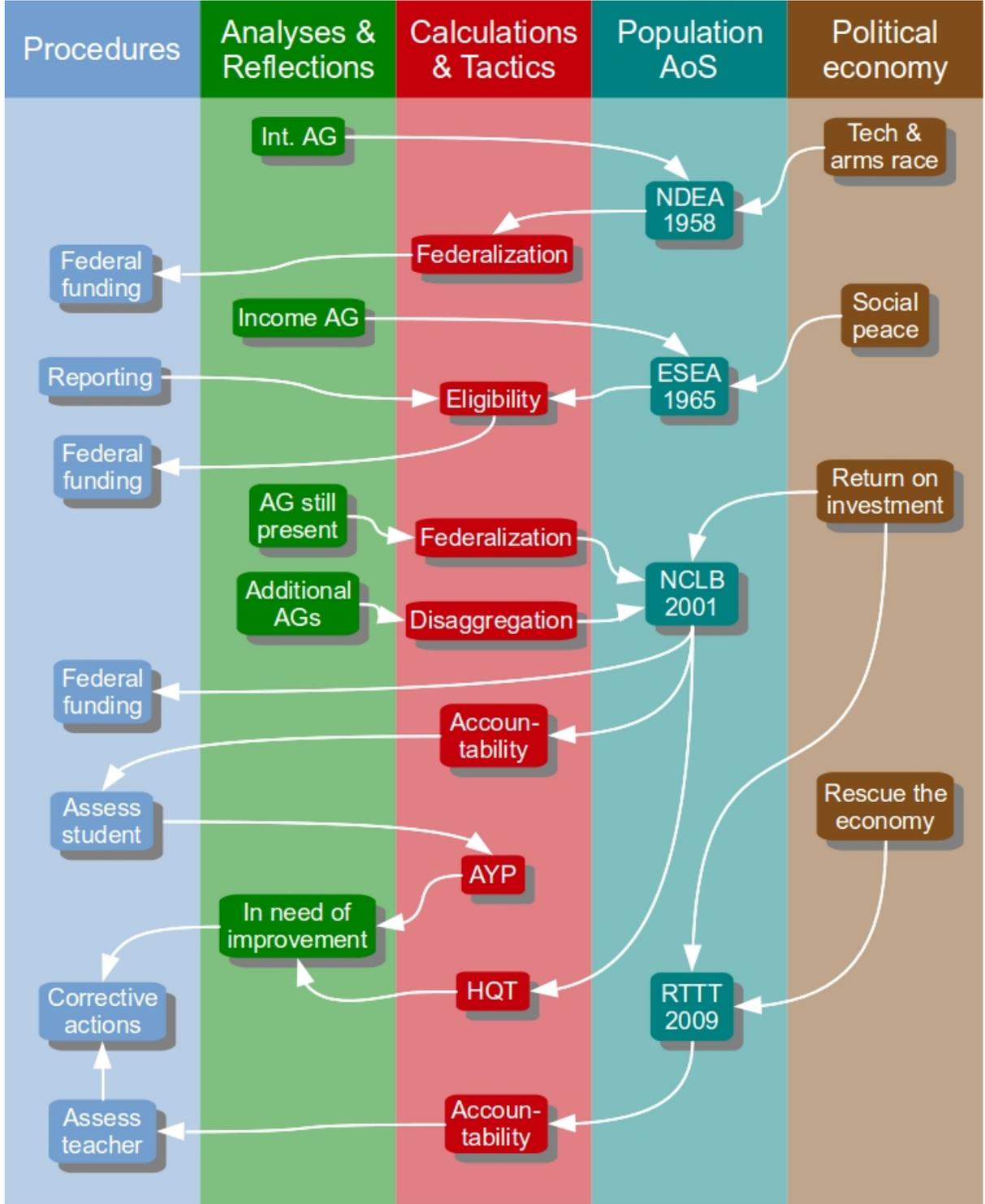


Figure 6.1: The “Ensemble”

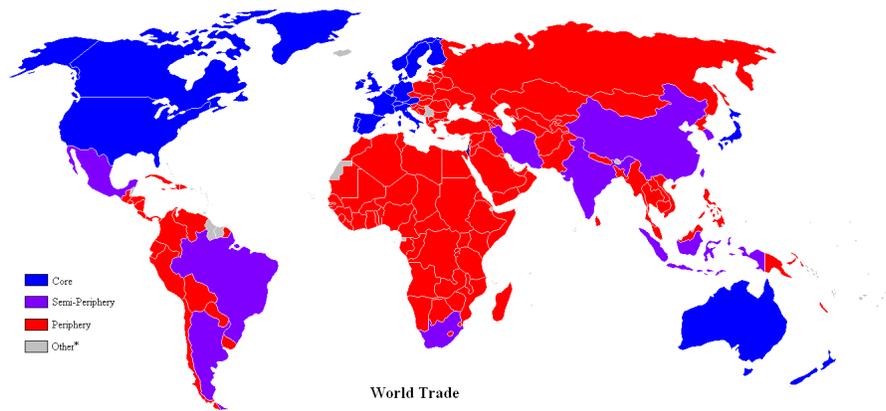


Figure 6.2: Countries According to World-system Theory

6.1.2 The Tendency

The second lens, which I called “the tendency,” by which we looked at the data was the second dimension of Foucault’s definition of governmentality, the *tendency* which, over a long period and throughout the West, has steadily led towards the pre-eminence over all other forms (sovereignty, discipline, etc.) of this type of power which may be termed government, resulting, on the one hand, in *formation of a whole series of specific governmental apparatuses*, and, on the other, in the development of a whole *complex of savoirs* (Subsection 2.4). As above, here I would like to resume the analysis (Figure 6.3, p. 382).

Foucault (2009, pp. 44–46) contrasted the “régime of discipline” with the “régime of power” and “apparatuses of security” (Subsubsection 5.2.7). He thus identified a historical trend where in the West the government by a “régime of discipline” is gradually replaced by the “apparatuses of security.” I find this lens very useful in understanding the dynamics of educational policy at the federal level. Public schools have been conceived as disciplinary structures (see e.g. Foucault, 2009, pp. 4–11 and Jones, 1990, p. 67). Such a régime demands that the behavior of the students be controlled and guided in detail and continuously. Their interests and inclinations have little place in this type of structure. However, initially schools were mostly local and autonomous structures. Since then public schools have become enmeshed into state and federal governmental structures and have thus begun to share their political dynamics. Hence, schools have been affected by the civil rights movements in the sixties and then by neo-liberalism in the eighties. Neo-liberal philosophy entails the opposite of a régime of discipline, it advocates a régime of security (Foucault, 2009, p. 11) because “apparatuses of security” are more efficient and cost-effective. The ideal of a perfect society is illusory, non realistic, and at any rate cannot be afforded

in the competition between nations (Subsubsection 6.1.1). Ideology based nations, such as the former U.S.S.R., Pakistan, North Korea, and Iran, are mired in poverty, violence, and repression.

Previously, in the discussion I have remarked how not only the schools operate according to a “régime of discipline,” but also its reform policies, at least in part (Subsections 5.2.7 and 5.2.8, Subsection 5.3, Subsections 5.4.1 and 5.4.8) and thus counter the above mentioned historical trend. I have hypothesized that this is one of the reasons that NCLB will fail to reach its goals (Subsubsection 5.2.4). We have seen how the appeal to have **all** students master a certain set of academic skills and having **all** teachers highly qualified has been pervasive in the language of the law and the rhetoric about it. We have seen how when this rhetoric encountered reality, it died the “death by a thousand cuts.” Exceptions have been asked for special education students and English Learning students, statistics have been fudged, standards have been tinkered with, and even fraud has been committed, up to the point that the Federal government, recognizing the obvious, has granted waivers to the majority of the states (Subsection 6.3). I have previously discussed the differences between these two types of government (Subsubsection 5.2.7) and I will thus not repeat it here. However, I would like to remark the irony of how NCLB has contributed to its own failure by not operating according to the political-economic principles that were its ideological foundation. The greatest in-school factor for the success of students is the teachers. Unfortunately, NCLB only prescribes for them a uniform, across-the-board, requirement for “highly qualified” status, and, in case of their non-compliance, “corrective actions.” There could have been a chance to incisively and significantly redress one of the causes of the AGs, the exodus of the better teachers from some schools due to poor pay and working conditions. Nonetheless, this was not going to be by design. Indeed in the text of NCLB we find

Sec. 1906. Nothing in this title shall be construed to mandate equalized spending per pupil for a State, local educational agency, or school.

Federal funding was increased, but the lion's share went to the implementation and management of student assessments. Extra exams are not known to be something that improves the motivation and attitude of students and thus their achievement. As we have seen in the previous subsection (5.3), the increases in test scores were often the result of academic 'adjustments,' exam drills, curriculum narrowing, exclusion of 'weak' students, if not outright fraud.

Often the failure of a government policy is blamed on an imperfect application of a fundamentally "good" law, even possibly by sabotage or at least passive resistance. Sometimes an opposite point of view is taken instead, and the law was considered to be fundamentally "flawed" from the beginning, and not even the best efforts and intentions of the people involved in its application could remedy its defects. Foucault (1991, pp. 80–81) stated that both positions are incorrect and that

[P]rogrammes dont take effect in the institutions in an integral manner; they are simplified, or some are chosen and not others; and things never work out as planned. But what I wanted to show is that this difference is not one between the purity of an ideal and the disorderly impurity of the real, but that in fact there are different strategies which are mutually opposed, composed and superposed so as to produce permanent and solid effects which can perfectly well be understood in terms of their rationality, even though they dont conform to the initial programming: this is what gives the resulting apparatus (*dispositif*) its solidity and suppleness.

As we have seen in the discussion section, many, if not most, of those involved in the application of NCLB embraced it sincerely, believing that it would be a remedy

for the AGs. Likewise, many, if not most, of the school teachers and administrators, managers at school districts, state educational agencies, and the U.S. Department of Education wanted the school reform to work. Many believed that positive results were engendered by NCLB. Hence I foresee that in education policy this tension between the “régimes of discipline” and “apparatuses of security” will remain with us for some time.

6.1.3 *The Process*

The third lens I called the “process” (Subsection 5.4) based on the third definition of governmentality by Foucault, *the process*, or rather the result of the process, through which the *state of justice* of the Middle Ages, transformed into the *administrative state* during the fifteenth and sixteenth centuries, gradually becomes governmentalized. I have used this lens to describe and discuss a series of trends in the public school system, namely the *increase in centralization* (Subsubsection 5.4.2), the *increase in importance of the economy on school curricula and assessments* (Subsubsection 5.4.3), the *increase of the federal share of school system funding* (Subsubsection 5.4.4), the *increase of the importance of assessments* (Subsubsection 5.4.5), the *increase of importance of the concept of accountability* (Subsubsection 5.4.6), and finally the *increase of external school interventions* (Subsubsection 5.4.7). Figure 6.4 (p. 383) provides an abstraction of the narrative obtained by analyzing the data through the third lens.

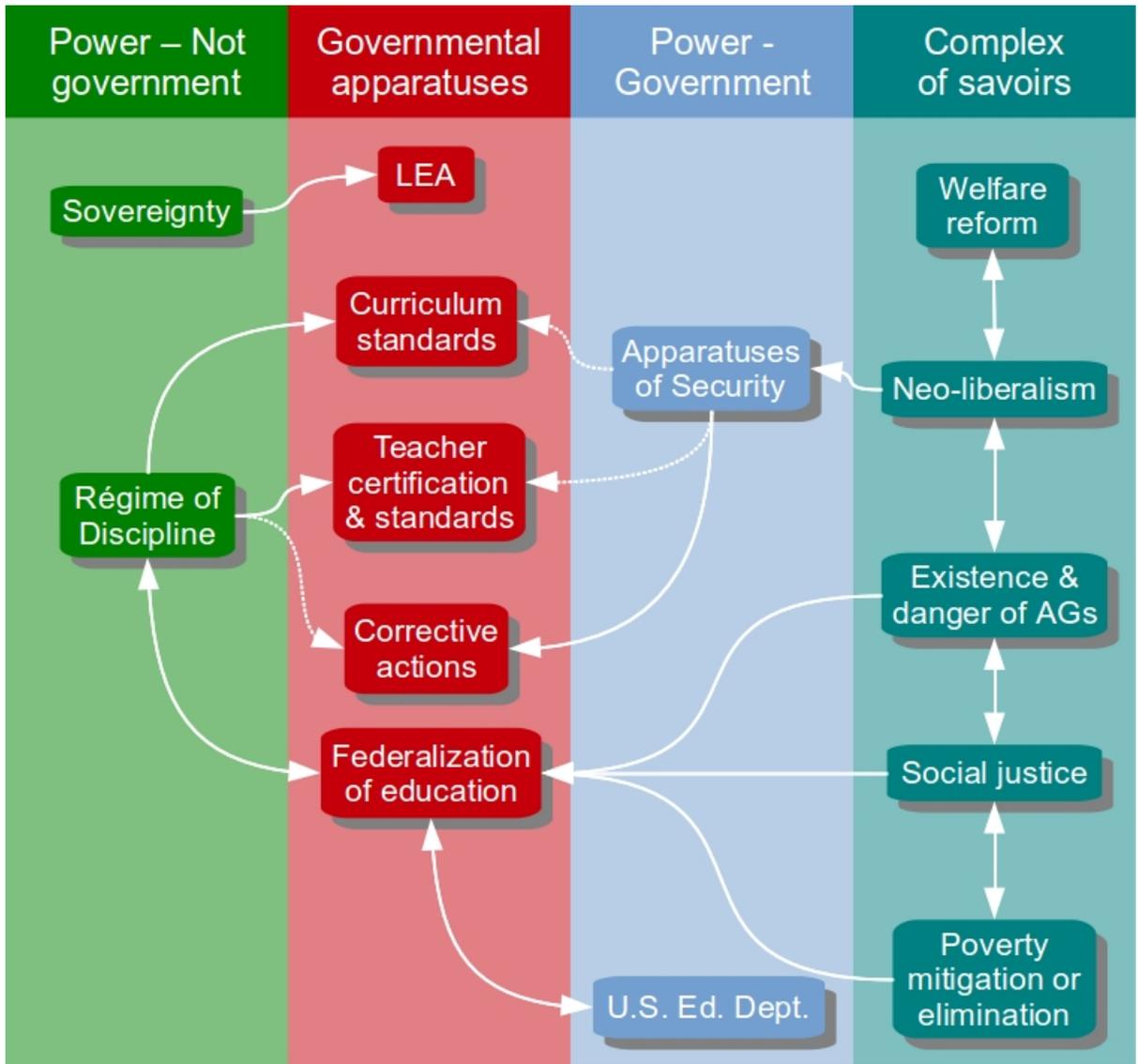


Figure 6.3: The “Tendency”

Federal vs. Local Control	Control & Economy	Control & Funding	Control & Testing	Control & Accountability	Control & Interventions
National interest 1958	this country needs to remain competitive 2007	education funding unequal 2002	I oppose a national test 2001	hold schools accountable 1999	freedom to change 2001
Present emergency demands 1958	ensure future competitiveness 2007	resisting to interfere in school finance litigation 2002	required annual tests of highest quality 2002	accountable to parents 2004	challenging schools 2004
Education is a national priority 2001	maintain America's competitive edge in this global, knowledge-based economy 2007	in return for extra federal money, you measure 2004	we want to know 2005	accountability devised local 2005	We shut down failing high schools 2006
incredible bureaucracy 2002		measure in return for the billions 2007	we expect you to measure 2006	accountability to let us know 2006	staffing freedom 2007
we are asking for results 2004		require close fiscal gaps 2010	remove firewall 2009	accountable meeting standards 2009	We expect you to change 2007
"instigator for accountability systems" 2005					Remake a school top to bottom 2009

Figure 6.4: The "Process"

We have seen that federal legislation often contains language that supports the concept of local control of education. For example, NDEA (1958) in Title I, Sec. 101, “Findings and Declaration of Policy” stated

The Congress reaffirms the principle and declares that the State and local communities have and must retain control over and primary responsibility for public education.

The next sentence of the same paragraph contains the rationale that advances the process of growth of the “administrative state”

The national interest requires, however, that the Federal Government give assistance to education for programs which are important to our defense.

Then the next section (Sec. 102) stated

Nothing contained in the Act shall be construed to authorize and department, agency, officer, or employee of the United States to exercise any direction, supervision, or control over the curriculum, program of instruction, administration, or personnel of any educational institution or school system.

Seven years later, the next important federal education legislation, ESEA (1965) contained almost identical language

Nothing contained in this Act shall be construed to authorize any department, agency, officer, or employee of the United States to exercise any direction, supervision, or control over the curriculum, program of

instruction, administration, or personnel of any educational institution or school system, or over the selection of library resources, textbooks, or other printed or published instructional materials by any educational institution or school system.

However, this section is number 604 of 605 in this act, and in NCLB (2001) this type of language is in Section 1905 of 9601

Nothing in this title shall be construed to authorize an officer or employee of the Federal Government to mandate, direct, or control a State, local educational agency, or school's specific instructional content, academic achievement standards and assessments, curriculum, or program of instruction.

C. Bell (2005, p. 7) stated that "Foucault contended that since the eighteenth century rationalities of government have been filtered through security. Modern society, he concluded, is a society of security." Indeed, we have seen that the federal government appeals to national emergencies for its interventions in school policy. For instance NDEA started stating that "The present emergency demands that additional and more adequate educational opportunities be made available." (Sec. 101) Subsequent legislation simply implied that their purposes address national emergencies, student poverty (ESEA) or the achievement gaps (NCLB). That is because the military danger retreats to the background (but never disappears) and ideological and later economic danger takes its place (Subsubsection 5.4.3).

In Foucault's exploration of the relationship between government and the economy (e.g. Foucault, 2009, pp. 33-34, 48) he referred to the close control of the economy that European governments used to exert before the emergence of liberal philosophy and its conversion to a system of "laissez faire." However, in the U.S.A.

the federal government did have but minimal influence on the school systems. Traditionally schools have been controlled locally and by the states. The application of neo-liberal economic-political principles thus created a self-contradictory situation. The federal government wants to de-regulate education, but to do so it has to impose “procedures” that previously did not exist and thus increased governmental involvement. It had to “regulate” de-regulation.

A quantitative indication of the federalization of education is given by the share of Federal funding of school budgets has increased several percentage points and has now surpassed 10 percent.⁷⁶

Finally, I would like to point out that we have seen in Subsection 5.4 how more and more pervasive the influence of the federal government has been. Thus, even though in the presidential discourses we encountered repeated assurances of local control, school flexibility, and parental choice, the “process” of transformation of the government of the public schools into a structure of the *administrative state* has all but been completed.

6.1.4 Section Summary

At this point we can propose a crystallization of the discourse analysis. I propose to construct this “crystal” using a series of antitheses, which could be illustrated by antipodal faces of this crystal.

I thus would condense and model the discourse on education policy on the AGs as a series of antitheses, where the two theses are in tension or outright contradiction and that can be thought of as opposing faces on a crystal. They are (1) the régime of discipline versus the apparatuses of security, (2) the appeal to danger versus assurances of progress or even success, (3) the acknowledgement of the association between the AGs and the “disadvantage” of the students and the disregard and even

prohibition of the equalization of school funding, (4) the desire for all students to be “equal,” but they have to be dis-aggregated, the (5) injunction of research based instruction practices and an ideology-driven reform policy, (6) we expect equal outcomes by using market forces, which are known to produce a diversity of results, (7) the teacher is a “highly qualified” professional, but also a functionary of the government, and finally (8) the claim to honor local control and school flexibility versus the unprecedented federalization and bureaucratization of the schools, which is a mirror of the contrast between the desire to establish apparatuses of security in schools and the means to establishing them through régimes of discipline (Figure 6.5, p. 388). I consider this last antithesis the cornerstone of the problematic of U.S. federal policy on the achievement gaps.

6.2 Some Concluding Thoughts as an Educational Researcher

How should educational researchers position themselves with respect to the AGs? Are they an unavoidable intrinsic aspect of human society, or instead the result of a social, structural, or cultural imbalances and thus, at least in principle, amenable to a resolution? What are the achievement gaps a symptom of? What do the AGs tell us about our schools and our nation?

First of all, I think that we as educational researchers should not comport ourselves as policy makers nor as spokespeople for policy organizations (Atkinson, 2004). That is, we should be aware of the possibility that our research on the AGs be used to further the ideological objectives of certain politic-economic interests. Yes, there is no such thing as value free social research, and yes, there is a strong and active research endeavour by socially active researchers (see e.g. Kemmis & McTaggart, 2005). However, I think that it is important for us to identify and properly present our presuppositions and interests.

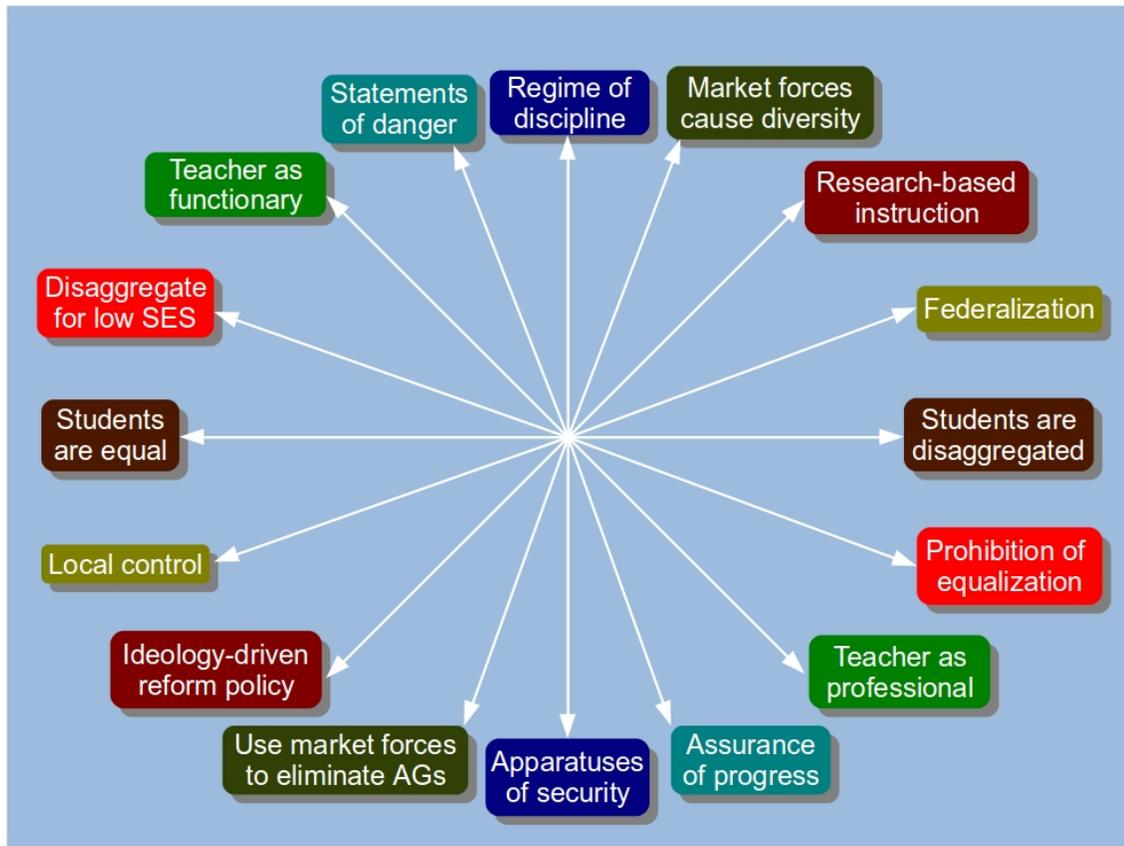


Figure 6.5: The Oppositions

Thus, what are these AGs? Are they indicators of real social problems or just statistical aberrations? I think that the achievement gaps are real, but not necessarily across-the-board problems. Regardless of our views on human determinism or agency, nature versus nurture, and free will or the lack thereof, we all agree that human beings are not uniform clones of a single prototype. We all have different aptitudes, inclinations, and interests, as it should be. Using the analogy of a flower garden,⁷⁷ we all prefer those containing flowers with a variety of colors, sizes, and shapes. There should be scientists and piano players, ballerinas and car mechanics, practical people

and daydreamers, smiths of metal, of words, or of ideas. Having all these different students pass through the “Caudine Forks”⁷⁸ of a common curriculum and a uniform battery of assessments is often a discouraging, if not humiliating, experience. I do not reject the necessity of a common “core” of subjects that all students should master, but those should be centered on U.S. history, culture, civics, and language skills. Whether all students can use the quadratic formula should not be a *sine qua non* of a successful school.

However, there is another difference between students, one that can be summed up by their socio-economic status. Briefly, poor students go to poor schools, where their teachers are poorly treated, obtain poor academic results, leave with poor skills, and face poor career prospects (D. Hall et al., 2010; Jordan & Cooper, 2003; Kozol, 1991). Unfortunately, as Bourdieu (1982) and Bourdieu and Passeron (1990) have shown, the situation is actually worse. Poor people do not only have less financial capital, and thus are less likely to obtain a university degree or start a business, but also lack social and cultural capital. They do not speak the ‘language’ of their teachers, who belong to a different SES stratum. They do not know how to behave in an academic setting, which requires a different type of posturing and drive to succeed than the one found in their living environment. They do not have the connections as well as vocalized and unvocalized input that helps them navigate a complex bureaucracy. The American myth of a classless society where anyone can reach the top is appealing, common, and completely false (see e.g. Greene, 1982).

No type of school reform can solve the problems of poverty, and thus cannot solve the AGs (see Noguera, 2008). There are examples of schools that have overcome the poverty based AGs. However, that has only been possible by demanding from the teachers even more sacrifices as well as the provision of social services to the students and their families. The school system in the U.S. is stooped under the

burden of providing services, such as transportation and nutrition, which in other modern countries are unnecessary or provided by the public services (Payne & Biddle, 1999). Hence these gains are at best localized and usually transitory. As we have seen in Section 5, a few have pointed out this situation, but have mostly just been “voices crying in the desert.”⁷⁹ As D. A. Bell (1980) showed, in the United States any legislation or social action against poverty is poisoned, blocked, stalled, derailed, or perverted by racism. The particular socio-historical situation of the U.S. has divided the poor (about 16% of the population) into culturally incompatible groups of people who completely distrust and despise each other. Almost no collaboration or common action is possible. This is a fitting example of *divide et impera*. One can notice this by examining the statements given at the Congressional hearings by “progressive” non-governmental organizations. Except for the professional, academic, and business organizations, most others belonged to racially or ethnically distinct groups (Table 4.16), for example the National Baptist Convention (African American), the National Congress of American Indians, the Hispanic Council for Reform and Educational Options, the Black Alliance for Educational Options, the National Urban League (African American), the Mexican American Legal Defense, and the Educational Fund Hispanic Education Coalition.

Thus, the progressive dismantling and voiding of the “war on poverty” which happened under both Republican and Democratic presidents occurred with little opposition (see Gorski, 2012). Consider how NCLB, a law that has the title “To close the achievement gap with accountability, flexibility, and choice, so that no child is left behind” contains this language

Sec. 1906. Nothing in this title shall be construed to mandate equalized spending per pupil for a State, local educational agency, or school.

thus prohibiting what is probably the only real way to eliminate the AGs and prescribing as their remedy “tactics” that do little beyond burdening schools and catalyzing their conversion to charters (Payne & Biddle, 1999). There can be no relief of poverty in the U.S. without a **significant** transfer of wealth from the rich to **all** the poor. ESEA and its descendant NCLB were meant to “transfer” some wealth to poor schools and they have little to show for. One could certainly argue that in their absence the situations would have been worse. However, ESEA, NCLB and any other agency or program created by the federal government has resulted in the erection of large bureaucracies, lots of billable hours for law firms, and little more. Sadly, there are successful programs around the world where with little overhead funds have been made available to poor people who have genuinely benefited from them. I am referring to “conditional cash transfer” (CCT) programs.⁸⁰ Obviously, since these programs consists of direct deposits of money in the bank accounts of the poor and would need but little administrative oversight, it will be difficult to obtain a “convergence of interests” to make this happen. A CCT does not need the creation of large structures and offices managed by people of the upper class and staffed by people of the middle class, nor does it need the services of law offices and consultants.

Actually, the U.S. has had good experience with a specific CCT program. Title IV of the National Defense Education Act of 1958 prescribed the assignment of fellowships to university students who met certain conditions. However, the monetary amounts were small and the program lasted only a few years.

Another small CCT program, limited to the District of Columbia, the “D.C. Opportunity Scholarship Program” had a very controversial history.⁸¹ We have here previously analyzed the policy discourse of a Senate Hearing on this program (111shrg52939, see Table A.85). The opponents of this CCT were very clear in the

reason for their opposition. They were afraid that it would divert funding from the public school system to the pockets of the citizens of D.C.. The program has for all intents and purposes ceased to exist for lack of funding.

As we have seen previously, Senator Lamar Alexander (Republican, Tennessee, former Secretary of Education) proposed an education CCT of \$500 per student per year named Pell Grants for Kids (108shrg94993, see Table A.23). This program would have been targeted at middle- and low-income children. The same type of opposition as the previous CCT program was voiced against this program. Even though the amount was very small, or probably because the amount was so small, it was impossible for this bill proposal to come to fruition.

Based on the just mentioned conditions, it is natural to surmise that the poverty induced AGs will continue to plague the U.S. public school system, while the natural differences of academic interest among students will be ignored. However, I do not intend to conclude this work on a pessimistic tone. Yes, Foucault has shown that power and control are all-pervasive and capillary, that society has forged our chains and clasped them in our minds, but he has also shown that power is not concentrated, but diffused. Indeed, Foucault stated that he has shown

people that they are much freer than they feel, that people accept as truth, as evidence, some themes which have been built up at a certain moment during history, and that this so-called evidence can be criticized and destroyed. To change something in the mind of people – that is the role of an intellectual. (R. Martin, 1988, p. 10)

6.3 Suggestions for Future Research

Concluding, in this subsection I would like to share a few suggestions for future investigations on this subject. The research can be expanded in *detail*, *breadth*, and

time (Figure 6.6, p. 393).

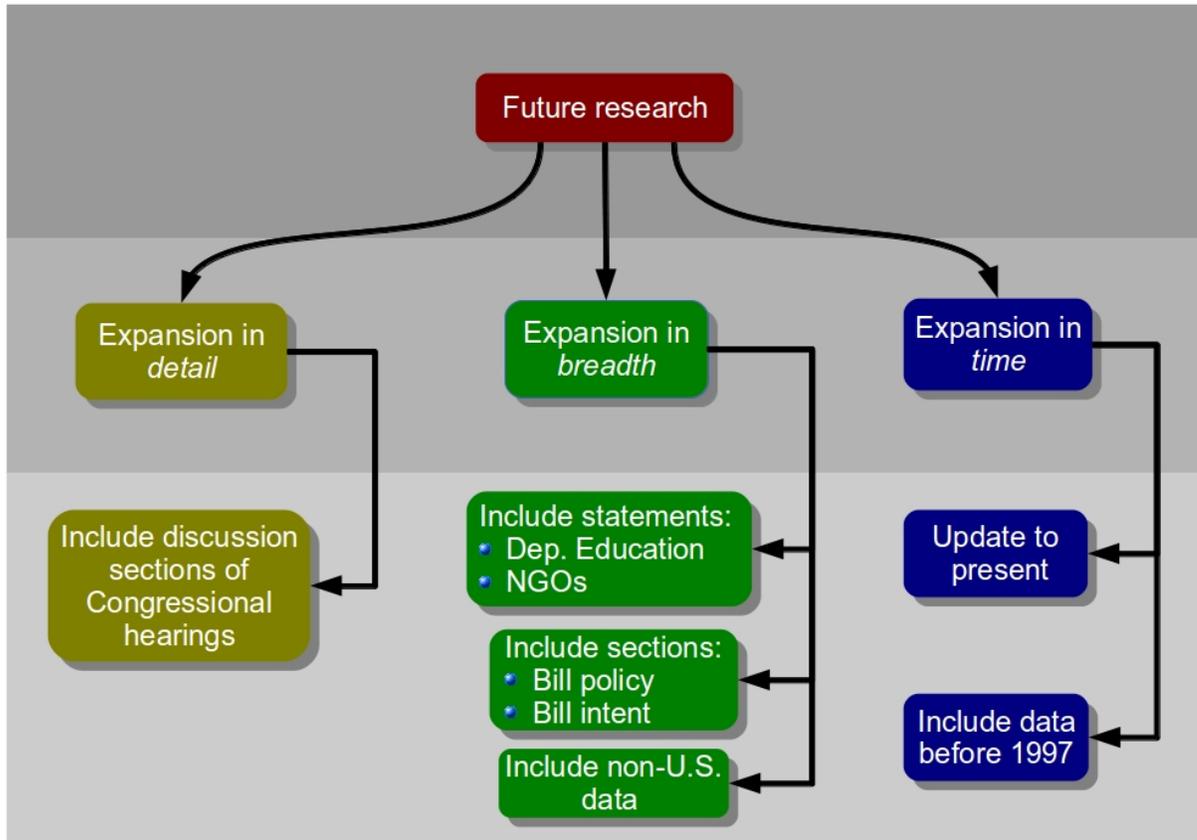


Figure 6.6: Suggestions for Future Research

Regarding *detail* we can take into consideration important data that I have neglected in the present study. I have removed the discussions between representatives and senators themselves and the witnesses. Often pronouncements were made that the pre-packaged and polished statements did not contain. We have spontaneous expressions that often are unfiltered by the exigencies of political courtesy and calculations.

For example Senator Patty Murray (Democrat, Washington) stated about Secre-

tary of Education Dr. Roderick Paige during a session of the Senate Appropriations Committee (107shrg70756, 2001-03-06) the following during a question and answer session

We have seen, through various studies, that smaller classes make a difference in dropout rates and the number of students going on to college, and even teen pregnancy rates, even if it is just in those first, second and third grades, where our kids are just beginning to learn the basics, that they get the individual attention they need. And yes, it is the responsibility of the Federal Government to be a partner, to make sure that our local school districts have the ability to create smaller classes.

In fact – I have to say, I am sort of baffled by your conversion, as Secretary of Education, from where you stood on this issue were as Superintendent of Houston schools, because I know that in presentations by your advisor, Susan Sclafani, about how Houston closed the achievement gap, certainly setting out the goals and where you wanted kids to be – and telling people they had to be accountable was part of it.

The expansion in *breadth* would consist in the inclusion of document collections that I have examined in some detail during the initial stages of the research, but then excluded from the data sources. Document collections that I would next analyze would be (1) the statements of the U.S. Department of Education,⁸² (2) the policy and intent sections of relevant education bills of the U.S. Congress,⁸³ and (3) papers produced by non governmental organizations (NGOs) such as “America’s Perfect Storm” (2007),⁸⁴ “An American Imperative” (2007),⁸⁵ “Parsing the Achievement Gap” (2003),⁸⁶ and “Rising above the Gathering Storm” (2007).⁸⁷ Several of these documents and the NGOs that produced them have been repeatedly mentioned in

the Congressional hearings that we have examined (Section 5).

A different kind of expansion could include the study of non-U.S. educational systems. There is an abundance of educational research of the AGs around the world. For example Martins and Veiga (2010) in several European countries, Zhu and Leung (2011) and Ho (2010) in Hong-Kong, Ngware, Mutisya, and Oketch (2012) and Ngware, Ciera, Abuya, Oketch, and Mutisya (2012) in Kenya, Sterenberg and Hogue (2011), Caro (2009), Cherubini, Hodson, Manley-Casimir, and Muir (2010), Grose and Strachan (2011), and Martino and Rezai-Rashti (2012) in Canada, Areepattamannil (2012) in the Arabic peninsula, Zuzovsky (2010) and Rosen and Manny-Ikan (2011) in Israel, Bouhlila (2011) in North Africa and the Middle East, Strand (2012) and Thomson, Hall, and Jones (2010) in the U.K., Knipprath (2010) in Japan, M. C. Smith (2011) and M. C. Smith (2011) in South Africa, Verachtert, Van Damme, Onghena, and Ghesquiere (2009) in Belgium, Caro and Lehmann (2009) in Germany, Panizzon and Pegg (2007) and Warren and deVries (2009) in Australia, J. Kim and Choi (2008) and Choi and Lemberger (2010) in Korea, Luyten, Schildkamp, and Folmer (2009) in the Netherlands, Highfield (2010) in New Zealand, Wu, Goldschmidt, Boscardin, and Sankar (2009) in India, Rangvid (2010) in Denmark, and Zhou, Peverly, and Lin (2004) in China.

The expansion of the research in time can be done in two directions, that is (1) update the study with more recent data, or (2) investigate further into the past. In the first case I would find it most interesting to examine the discourse on the NCLB waivers that the majority of the states are requesting from the U.S. Department of Education. The website of this department informs us that

The U.S. Department of Education has invited each State educational agency (SEA) to request flexibility regarding specific requirements of the

No Child Left Behind Act of 2001 (NCLB) in exchange for rigorous and comprehensive State-developed plans designed to improve educational outcomes for all students, close achievement gaps, increase equity, and improve the quality of instruction. Currently:

44 states, the District of Columbia, Puerto Rico and the Bureau of Indian Education submitted requests for ESEA flexibility

34 States and the District of Columbia are approved for ESEA flexibility⁸⁸

The State of Texas is not yet in the list, but it has moved to apply for waiver as per the Texas Education Agency website.⁸⁹

How has the political discourse changed from the high hopes and promises of ESEA and especially the launch of NCLB in 2002, to the tacit and implicit admission of failure that these waivers denote? Unfortunately, my data offered but the beginning of the utterance of doubts and request of reform of the law that positioned itself as the grand reform of U.S. public education (see e.g. 111shrg55474, Subsubsections 5.4.4 and 5.4.5).

Now, looking into the recent past, I would consider the analysis of the political discourse around the establishment of ESEA most interesting. How does not law fit within the context of the “War on Poverty” of President Lyndon B. Johnson and “Brown versus Board of Education” (1954)? What are its *reflections and analyses* and its *calculations and tactics*? I have discussed ESEA much less than NCLB even though they had very similar goals. Thus, a more exhaustive analysis of this important piece of legislation in light of Foucault’s governmentality is warranted in my opinion.

NOTES

¹<http://www.iea.nl>

²<http://www.pisa.oecd.org>

³<http://nces.ed.gov/nationsreportcard>

⁴<http://www.pica.oecd.org>

⁵<http://www.timss.org>

⁶The list of these countries varies over time, at the beginning they were Germany and the UK, then Japan and the USSR, more recently it is Western Europe, China and South Korea. It is more a function of economic competition and trade imbalance than actual ranking on international studies. Finland, Canada, Australia and New Zealand are consistently ranked higher, but are rarely mentioned in articles and commentaries on the Achievement Gap.

⁷The University of California, Berkeley was mistakenly sued for bias because of the Simpson paradox.

⁸I am indebted to Phil Cormack of the University of South Australia for this and other references.

⁹<http://www.ed.gov/pubs/NatAtRisk/index.html>. Notice the rhetoric of war used in this document.

¹⁰<http://www.gpo.gov/fdsys/pkg/PLAW-107publ110/content-detail.html>

¹¹Full time, permanent, with benefits and well above the minimum wage. Considering that the U.S. is the only developed nation without universal health coverage the loss of those kinds of jobs are devastating for those families.

¹²<http://www.nytimes.com/2011/08/25/opinion/how-to-fix-our-math-education.html>

¹³<http://ngrams.googlelabs.com>

¹⁴Later I found that also A.J. Bartlett (2006) quoted the second passage from *The Republic*.

¹⁵It is not on the LSAT test, but there is a difficult logic section that is related to mathematical reasoning.

¹⁶<http://www.gpo.gov/fdsys/pkg/PLAW-107publ110/content-detail.html>

¹⁷In Europe initially Greek, then Latin, followed by French, and now English

¹⁸<http://www.iep.utm.edu/plato/>

¹⁹Interestingly, the first time that we have actual public support for teaching, including mathematics, is in the Italian city-states or its small republics.

²⁰One of the electoral promises of President Reagan was the abolishing of the Department of Education. Of course the promise was not kept. See <http://www.cato.org/research/articles/gryphon-040211.html>

²¹<http://www.youtube.com/watch?v=kawGakdNoT0&NR=1>

²²http://www.youtube.com/watch?v=UakDD3TSs-0&feature=PlayList&p=CE40E94F8711F728&playnext=1&playnext_{}from=PL&index=54

²³PB: Pierre Bourdieu, DB: Dominique Bollinger, the interviewer

²⁴<http://www2.ed.gov/pubs/NatAtRisk/index.html>

²⁵See the concept of *Manifest Destiny* and the westward expansion of the U.S. at the expense of Native Americans, Mexico, the UK. Also examine the painting by John Gast, 1872 called “American Progress” kept at the Museum of the American West, Autry National Center, Los Angeles, <http://www.autrynationalcenter.org>

²⁶1754-1763

²⁷1959-1975. It is ironic to note that actually the U.S. won the war. It forced North Vietnam to sign a peace treaty. Later North Vietnam violated the peace treaty and invaded South Vietnam. At this point the U.S. did not have the political will and attention, i.e. Watergate, to intervene and basically betrayed its ally.

²⁸11 September 2001

²⁹<http://www.eric.ed.gov>

³⁰<http://www.ebscohost.com/public/eric>

³¹<http://www.pirls.org>

³²<http://www.ibo.org>

³³Dr. Kathryn McKenzie brought this paper to my attention

³⁴<http://www.brookings.edu>

³⁵boldface not in original

³⁶<http://www.gnu.org/software/bash/>

³⁷See for example <http://r4stats.com/articles/popularity/>

³⁸<http://ggplot2.org/>

³⁹<http://tm.r-forge.r-project.org/>

⁴⁰<http://brazos.tamu.edu>

⁴¹<http://www.gnu.org/software/emacs/>

⁴²<http://ess.r-project.org/>

⁴³<http://orgmode.org>

⁴⁴<http://www.latex-project.org>

⁴⁵<http://www.bibtex.org>

⁴⁶<http://www.gnu.org/software/auctex/>

⁴⁷This list is not included in this document due to its very large size, but can be provided on request.

⁴⁸<http://foucault.info/documents/foucault.technologiesofself.en.html>

⁴⁹<http://rqda.r-forge.r-project.org/>

⁵⁰<http://ggplot2.org>

⁵¹<http://brazos.tamu.edu>

⁵²<http://www.w3schools.com/sql/>

⁵³<http://www.maths.tcd.ie/pub/HistMath/People/Boole/CalcLogic/CalcLogic.html>

⁵⁴http://www.encyclopediaofmath.org/index.php/Venn_diagram

⁵⁵http://cciweb.uncc.edu/~mirsad/itcs6265/group1/ward_min_variance.html

⁵⁶<http://www.americanprogress.org>

⁵⁷I placed some terms in boldface

⁵⁸<http://www2.ed.gov/programs/racetothetop/index.html>

⁵⁹<http://www.naacp.org>

⁶⁰<http://etext.lib.virginia.edu/etcbin/toccer-new2?id=CarGlas.sgm&images=images/modeng&data=/texts/english/modeng/parsed&tag=public&part=2&division=div1>

⁶¹<http://www.americaspromise.org>

⁶²I have found useful to consult “Le Vocabulaire de Foucault” by Judith Revel, <http://www.scribd.com/doc/19452847/Le-Vocabulaire-de-FoucaultJudith-Revel>

⁶³<http://www.brookings.edu>

⁶⁴<http://www.corestandards.org>

⁶⁵<http://www.cccr.org>

⁶⁶<http://www.edtrust.org/>

⁶⁷<http://www.guardian.co.uk/business/economics-blog/2012/aug/05/economic-crisis-myths-sustain>

⁶⁸<http://afp.google.com/article/ALeqM5hWSjWmGJ4YXTh3PM5kOC7csTT48g>

⁶⁹The author has released the copyright of this work into the public domain, see http://commons.wikimedia.org/wiki/File:US_Trade_Balance_1980_2009.svg

⁷⁰<http://www.nea.org>

⁷¹<http://www.nul.org>

⁷²<http://www.govtrack.us/congress/bills/106/hr1960>

⁷³The author of the figure has released it in the public domain. See http://en.wikipedia.org/wiki/File:World_trade_map.PNG

⁷⁴i.e. no barriers to entry, perfect transparency, and no time lag

⁷⁵The children of President Barack Obama attend Sidwell Friends School, a highly selective private school, <http://www.sidwell.edu>

⁷⁶<https://www2.ed.gov/about/overview/fed/role.html>

⁷⁷not original to me

⁷⁸http://en.wikipedia.org/wiki/Battle_of_the_Caudine_Forks

⁷⁹Matthew 3:3

⁸⁰See e.g. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALPROTECTION/EXTSAFETYNETSANDTRANSFERS/0,,contentMDK:20615138~menuPK:282766~pagePK:148956~piPK:216618~theSitePK:282761,00.html>

⁸¹<http://www.dcscholarships.org/>

⁸²<http://www2.ed.gov/about/pubs/publications-reports.html>

⁸³<http://www.gpo.gov/fdsys/search/home.action>

⁸⁴http://www.ets.org/Media/Education_Topics/pdf/AmericasPerfectStorm.pdf

⁸⁵http://www.mathforamerica.org/c/document_library/get_file?folderId=6&name=DLFE-46.pdf

⁸⁶<http://www.ets.org/Media/Research/pdf/PICPARSING.pdf>

⁸⁷http://www.nap.edu/catalog.php?record_id=11463

⁸⁸<http://www2.ed.gov/policy/elsec/guid/esea-flexibility/index.html>

⁸⁹<http://www.tea.state.tx.us/index4.aspx?id=2147508792>

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APPENDIX A

STATEMENT MESSAGES

This appendix contains the messages that I abstracted from each of the statements in the document collections. See Section 4.3.

A.1 Presidential Documents

This section contains the messages from the statements for the presidential documents. Each of the four tables presents for each of the presidents the document and its message. This appendix section is complementary to Subsection 4.3.2.

Table A.1: Statement Messages of Barack Obama

Statement ID	Message
DCPD-200900575	The nation must address structural inequalities. We make our own destinies.
DCPD-200900595	“America will not succeed in the 21st century unless we do a far better job of educating our sons and daughters.”
DCPD-200900884	“American prosperity has long rested on how well we educate our children.”
DCPD-201000036	We need to improve education to enhance competitiveness and secure a better future for our people
DCPD-201000130	HBCUs are important for the nation and the federal government should support them
DCPD-201000636	Support and implement the RTTT
DCPD-201000812	The States have to help students not fall behind the international competition
DCPD-201100172	We need to fix NCLB

Table A.2: Statement Messages of William Clinton

Statement ID	Message
WCPD-1999-05-31-Pg964	“We should continue to focus on high academic standards for all children”
WCPD-2000-06-19-Pg1366-4	“intelligence is equally distributed throughout the world, but opportunity is not.”

Table A.3: Statement Messages of George W. Bush

Statement ID	Message
WCPD-2001-01-29-Pg217	“We must confront the scandal of illiteracy in America, seen most clearly in high-poverty schools ... We must address the low standing of America test scores amongst industrialized nations in math and science, the very subjects most likely to affect our future competitiveness.”
WCPD-2002-01-14-Pg36	NCLB begins a new and hopeful era for American education
WCPD-2002-04-08-Pg551-2	The new civil right in America is reading
WCPD-2003-01-13-Pg39	Schools should be places of hope and opportunity for all, the time for excuses is over
WCPD-2003-08-04-Pg984-2	“the future of our economy and our country depend upon good schools in all our neighbourhoods.”
WCPD-2004-01-12-Pg28	Every child and should learn, provided it has adequate support. NCLB is a great piece of legislation which is making a difference around our country
WCPD-2004-05-17-Pg856	The Federal government will fund the improvement of schools, but wants to measure results
WCPD-2004-08-16-Pg1561	Re-election speech
WCPD-2004-08-23-Pg1587	Re-election speech
WCPD-2004-08-23-Pg1631	Re-election speech

Table A.3: Continued

Statement ID	Message
WCPD-2004-08-23-Pg1644-2	Re-election speech
WCPD-2004-09-06-Pg1720	Re-election speech
WCPD-2004-09-06-Pg1727	Re-election speech
WCPD-2004-09-06-Pg1750	Re-election speech
WCPD-2004-09-06-Pg1757	Re-election speech
WCPD-2004-09-06-Pg1773	Re-election speech
WCPD-2004-09-06-Pg1790	Re-election speech
WCPD-2004-09-13-Pg1819	Re-election speech
WCPD-2004-09-13-Pg1851	Re-election speech
WCPD-2004-09-13-Pg1863-2	Re-election speech
WCPD-2004-09-13-Pg1869	Re-election speech
WCPD-2004-09-20-Pg2000	Re-election speech
WCPD-2004-09-20-Pg2025	Re-election speech
WCPD-2004-09-27-Pg2085	Re-election speech
WCPD-2004-09-27-Pg2097	Re-election speech
WCPD-2004-09-27-Pg2126-2	Re-election speech
WCPD-2004-10-04-Pg2152-2	Re-election speech
WCPD-2004-10-11-Pg2223	Re-election speech
WCPD-2004-10-11-Pg2244	Re-election speech
WCPD-2004-10-11-Pg2276	Re-election speech
WCPD-2004-10-18-Pg2330	Re-election speech
WCPD-2004-10-18-Pg2344	Re-election speech
WCPD-2004-10-18-Pg2387	Re-election speech
WCPD-2004-10-18-Pg2393	Re-election speech
WCPD-2004-10-18-Pg2399	Re-election speech
WCPD-2004-10-18-Pg2405	Re-election speech
WCPD-2004-10-25-Pg2425	Re-election speech
WCPD-2004-10-25-Pg2455-2	Re-election speech
WCPD-2004-10-25-Pg2522-2	Re-election speech
WCPD-2004-11-01-Pg2543	Re-election speech
WCPD-2004-11-01-Pg2549	Re-election speech
WCPD-2004-11-01-Pg2555	Re-election speech
WCPD-2004-11-01-Pg2561	Re-election speech
WCPD-2004-11-01-Pg2567	Re-election speech
WCPD-2004-11-01-Pg2628	Re-election speech
WCPD-2004-11-01-Pg2647	Re-election speech
WCPD-2004-11-01-Pg2654	Re-election speech
WCPD-2004-11-01-Pg2660	Re-election speech
WCPD-2004-11-01-Pg2667	Re-election speech

Table A.3: Continued

Statement ID	Message
WCPD-2004-11-01-Pg2679	Re-election speech
WCPD-2004-11-08-Pg2689	Re-election speech
WCPD-2004-11-08-Pg2695-3	Re-election speech
WCPD-2004-11-08-Pg2708	Re-election speech
WCPD-2004-11-08-Pg2715	Re-election speech
WCPD-2004-11-08-Pg2727	Re-election speech
WCPD-2004-11-08-Pg2732	Re-election speech
WCPD-2004-11-08-Pg2737	Re-election speech
WCPD-2004-11-08-Pg2742	Re-election speech
WCPD-2004-11-08-Pg2747	Re-election speech
WCPD-2004-11-08-Pg2752-2	Re-election speech
WCPD-2004-11-08-Pg2758	Re-election speech
WCPD-2004-11-08-Pg2763	Re-election speech
WCPD-2004-11-08-Pg2768	Re-election speech
WCPD-2004-08-30-Pg1669	The principles of NCLB are sound and have to be pursued. There are signs of trouble in the implementation of NCLB.
WCPD-2004-08-30-Pg1669	
WCPD-2005-10-24-Pg1559	NCLB is working
WCPD-2005-01-17-Pg45	NCLB is working
WCPD-2006-02-27-Pg320	NCLB is working
WCPD-2006-10-23-Pg1837-2	NCLB is working
WCPD-2007-04-30-Pg527	NCLB is working
WCPD-2007-10-01-Pg1251-2	NCLB is working
WCPD-2004-08-30-Pg1679	Re-election speech: "I've got more to do to make this country safer, stronger, and better"
WCPD-2004-09-13-Pg1839-2	Re-election speech for the president, representative Steve LaTourett, and Senator George Voinovich
WCPD-2004-10-18-Pg2312	Re-election speech for himself and Matt Blunt for governor
WCPD-2004-10-18-Pg2338	Re-election speech for the president and election speech from Pete Coors
WCPD-2004-10-18-Pg2364-GWB-1	Education is part of economic policies
WCPD-2004-10-18-Pg2364-GWB-2	We need a public school system where all children achieve to have a competitive economy
WCPD-2004-10-18-Pg2364-GWB-3	The reforms are more important than just funding public education

Table A.3: Continued

Statement ID	Message
WCPD-2005-02-07-Pg122-2	NCLB is working, but we need to do more for the 21st century economy
WCPD-2005-02-14-Pg187-2	Federal policies, including NCLB are working
WCPD-2005-03-07-Pg340	NCLB and other federal policies are working
WCPD-2005-03-21-Pg440	Administration wishes to work with Congress to implement its policies
WCPD-2005-04-25-Pg634	“America’s teachers help our students develop the skills they need to succeed in our schools.”
WCPD-2005-06-27-Pg1043	“That’s how you achieve results: You measure”
WCPD-2005-07-18-Pg1158	“I believe the government has a role to play in helping people gain the tools they need to build lives of dignity and purpose”
WCPD-2005-10-31-Pg1600	“We’ve got to ensure ... education ... workers to fill the jobs of the 21st century”
WCPD-2006-01-09-Pg12	The achievement gap is closing because we are measuring
WCPD-2006-01-16-Pg26-2	“We have a moral obligation to make sure every child gets a good education.”
WCPD-2006-01-16-Pg40-2	The public school system is important to economic security
WCPD-2006-01-23-Pg80-2	We know because we measure and can thus solve problems
WCPD-2006-03-13-Pg434	We need to keep the US economy strong
WCPD-2006-03-27-Pg498	NCLB is beginning to work because we measure
WCPD-2006-04-24-Pg725	National economy and education are connected
WCPD-2006-04-24-Pg734	“The problem is this: Can we compete?”
WCPD-2006-05-01-Pg751	“It makes sense for us to ask whether or not we’re getting our money’s worth”
WCPD-2006-05-01-Pg769-2	“children can learn, and we ought to .” expect them to learn.”
WCPD-2006-05-01-Pg798	“you’re building the future for the country.”

Table A.3: Continued

Statement ID	Message
WCPD-2006-05-08-Pg838	We all compete in this new world: workers and children
WCPD-2006-05-29-Pg965-2	“Competition is coming at the United States from different places around the world.”
WCPD-2006-07-31-Pg1396	“What actions must we take to make sure America is the economic leader of the world?”
WCPD-2006-10-09-Pg1750	NCLB is essential to keep the USA economically competitive
WCPD-2006-10-09-Pg1758	It is responsibility of the government to ensure that all citizens realize the American dream
WCPD-2006-10-16-Pg1765	NCLB works and has to be reauthorized
WCPD-2006-11-06-Pg1917-2	Mid-term election speech: Republicans understand the values and priorities of the American people
WCPD-2007-01-15-Pg16	NCLB is closing the achievement gap
WCPD-2007-02-05-Pg99	The reforms (including NCLB) must continue
WCPD-2007-03-05-Pg238	We need to eliminate the achievement gap
WCPD-2007-03-19-Pg338-2	We’re a great nation, and we intend to keep it that way.
WCPD-2007-04-30-Pg515	NCLB is working nationwide, parents can make choices
WCPD-2007-06-04-Pg715	Ensure that our country is competitive by enhancing math and science education
WCPD-2007-07-02-Pg858	NCLB is working. “Our ability to compete in the 21st century depends upon educating children”
WCPD-2007-07-30-Pg1011	The education system is part of the US economy
WCPD-2007-10-01-Pg1253	“We should make sure our children are prepared for the jobs of the future ... by strengthening math and science education
WCPD-2007-10-01-Pg1255	NCLB must be re-authorized and higher education must be affordable
WCPD-2007-10-15-Pg1318-2	The key to obtaining good results is measuring: the achievement gap is beginning to narrow

Table A.3: Continued

Statement ID	Message
WCPD-2008-01-14-Pg27	NCLB has worked
WCPD-2008-04-28-Pg587-2	The achievement gap is unacceptable and unsustainable for our country
WCPD-2008-05-05-Pg622	NCLB is a brilliant and important piece of legislation that must be re-authorized
WCPD-2008-05-05-Pg650-2	Educational choice empowers families. The achievement gap is beginning to close
WCPD-2009-01-12-Pg22-3	Thanks to NCLB the achievement gap is closing

Table A.4: Statement Messages of Senator John Kerry

Statement ID	Message
WCPD-2004-10-18-Pg2364-JK-1	The public schools are underfunded by the federal government and thus we can not eliminate the achievement gap
WCPD-2004-10-18-PG2364-JK-2	School funding should increase instead of tax cuts

A.2 Congressional Hearings

This section contains the messages from the statements for the Congressional Hearings. Each of the following tables corresponds to a Congressional hearing. This appendix section is complementary to Subsection 4.3.3.

Table A.5: Statement Messages for 105shrg39641

Author	Message
Amos C. Brown	Without a wholistic approach, which draws on multiple sources, a significant percentage of our population will grow up ignorant and unskilled.

Table A.5: Continued

Author	Message
Alan F. Clayton	Our schools are failing most poor children – of all colors and backgrounds.
Carolyn M. Gettridge	We have fundamentally shifted our thinking from the right of students to attend school, to the right of students to achieve in school.
Delaine Eastin	My department and I are committed to high academic standards and English proficiency for all students.
Deborah Wright	The issue in Oakland is not money it is management who fails to hire competent teachers and fire incompetent teachers. The influence of the unions places the teachers first and the students dead last.
J. Alfred Smith, Sr.	Before Ebonics became an issue, no one used the media to address low test scores in English, and no political leader attempted to gain political mileage by addressing the plight of African-American students.
Jesse L. Jackson	A recent study showed that where schools have adequate funding, classes are small, teachers decently paid, and standards high, poor black children do as well or better as any.
Jean Quan	We as school board members have to do everything to give our kids an equal chance.
Michael D. Casserly	The federal government has an important role to play that is entirely consistent with its historic mission in education of improving opportunity.
Maxine Waters	The poor academic achievement level of African-American children in Oakland, and indeed in many American communities, requires parents, educators, and policymakers, to address this reality in a forthright matter.
Orlando L. Taylor	To my knowledge, this hearing is the first that the Congress of the United States has ever called specifically to address this issue. [AG African Americans]
Ronald V. Dellums	This should be one of our highest national priorities – and may even be properly seen as one of our highest national security priorities.
Toni Cook	Our student’s under-achievement is symptomatic of a larger problem America’s public education system

Table A.6: Statement Messages for 106hhr59654

Author	Message
Dwight Evans	it seems to me that Federal priorities could be focused in such areas as support for the poorest students who are most at risk for academic failure, or assisting in the recruitment, education, retention, and professional development of highly qualified teachers.
Richard W. Riley	Title I Grants to Local Educational Agencies (LEAs) is the key Federal vehicle for closing the rich-poor gap in reading and math achievement.

Table A.7: Statement messages for 107shrg70756

Author	Message
Roderick R. Paige	President Bush believes that the Federal government can, and must, help close the achievement gap between disadvantaged students and their peers.
Roderick R. Paige	No Child Left Behind reflects the President's commitment to improving the quality of our teaching force in all subject areas, including mathematics and science, because teacher excellence is vital to achieving improvement in student achievement.

Table A.8: Statement messages for 107shrg78480

Author	Message
Roderick R. Paige	The President's 2003 budget for education supports the vision reflected in the No Child Left Behind Act for closing the achievement gap and improving the quality of education for all Americans.
Roderick R. Paige	The Department is committed to recognizing schools that make significant progress in closing achievement gaps and in ensuring that all children learn to high standards.
Roderick R. Paige	We are proposing significant increases for programs such as Title I Grants to Local Education Agencies and Reading First

Table A.9: Statement Messages for 107shrg79324

Author	Message
Edward M. Kennedy	We want to know whether schools are improving and helping our children do better.
Eugene W. Hickok Hickok	As we delve into the details of implementation, we cannot lose sight of the major principles that motivated enactment of the statute.
William H. Frist	Despite spending \$125 billion in Federal education aid for disadvantaged children over the past 25 years, fourth-graders fourth-graders who are African American, Hispanic, or poor, have less than a 50/50 chance of being able to read.

Table A.10: Statement Messages for 107shrg79941

Author	Message
Chaka Fattah	if we are serious about our partnership with State governments in the struggle to improve public education, then we must make certain that students living in lower income localities enjoy the same or comparable resources that have proven to be so beneficial for students in more affluent school districts.
Christopher J. Dodd	a system which, according to the World Economic Forum's 2001-2002 Global Competitiveness Report, ranks us last among developed nations in the difference in the quality of schools available to rich must be changed.
Edward M. Kennedy	Educational equity and adequacy is an educational imperative, an economic imperative, and a moral imperative.
Hugh B. Price	Students in under-funded school districts routinely score lower on standardized tests than do students in well-funded districts.
Judy Catchpole	All 50 of our Nation's chief State school officers are painfully aware of the unacceptable gap in achievement between advantaged and disadvantaged students.
John H. Isakson	I do not disagree that there is a correlation between low performance and expenditures in certain areas, but I can show you examples of where the highest per-pupil expenditures in Georgia go into systems where there are some of the lowest-performing schools, so it is not always the equivalent to a quality education.
Michael A. Rebell	that nothing is more critical to our efforts to close the achievement gap than making certain that every student, especially those who have been traditionally underserved by public schools, has access to competent, caring, qualified teachers in schools organized for success.
Mary-Beth Lang	Now, you must face the reality that you have set a goal for our Nation that will be achieved only with adequate resources.
Michael Enzi	We must allow the new reforms in this legislation, which are geared towards equity in academic achievement, time to work so that we can see the years of work that this committee put into education reform are successful.

Table A.11: Statement Messages for 107shrg80479

Author	Message
Edward M. Kennedy	We also need to examine the policies – local, State and Federal – that expand or limit access to educational opportunity for people of all ages.
Grover J. Whitehurst	We all recognize that, historically, the huge annual investment in the education of disadvantaged students and students with disabilities has not achieved everything that was expected of it.
LaMar P. Miller	when Federal funds are provided to support Federal priorities, there must be a network of federally monitored TA providers to ensure that the messages of the Federal Government are faithfully transmitted all the way to the classroom.
Michael Nettles	the Study Group recommendations for the National Assessment followed the release of ‘A Nation at Risk,’ the report that called for high standards and accountability in education on the one hand, while frustrated State policymakers on the other, were faced with the paucity of information and lack of comparability of student data across States.

Table A.12: Statement Messages for 107shrg81758

Author	Message
William J. Moloney	If our American democracy is to endure and prosper, it cannot be as a society that tolerates two systems of education – one of high expectation for the children of the fortunate and one of lesser standards for children of poverty and color
Michael D. Casserly	The Council supported the legislation because it set the right goals and it focused on the right kids – those too often left behind. We also endorsed the legislation because Congress generously funded the Act in the first year and targeted the resources on communities that needed help the most.
Wanda Gaddis	Title I funds have helped close the achievement gap between disadvantaged and non-disadvantaged children and given states and school districts money to implement reforms they would not otherwise have been able to afford.

Table A.13: Statement Messages for 108hrg90162

Author	Message
Eddie Bernice Johnson	El Paso Math and Science Partnership important goal of working to reduce the achievement gap often seen for disadvantaged students.
House Subcommittee on Research and Science Education	U.S. performance relative to other nations declined with increased schooling.
M. Susanna Navarro	we remain committed to continuing to learn what it takes to bring about real and lasting improvements for every single student in our community.
Nick Smith	Results from the most recent Third International Math and Science Study (TIMSS) – as well as evidence all around us – demonstrate in stark terms the need to improve math and science achievement for all students.
Sheila Jackson Lee	This poor performance does not bode well for the future our scientific endeavors or our high-tech economy.

Table A.14: Statement Messages for 108hhr91364

Author	Message
House Committee on Science and Technology	a decline in our domestic S&T workforce, new restrictions on foreign-born individuals, and an increase in competition for S&T talent may make it difficult for the U.S. to maintain its edge into the future.
J. Martez Hill	Georgia's economy is inextricably linked to the education of its citizenry and the quality of its schools, so the continued growth of Georgia's high tech job market and its overall economy is linked to the State's efforts to lead the Nation in improving student achievement.
Phil Gingrey	workers require a solid academic foundation in science and math to succeed in this high tech workplace and to remain competitive with students from other nations in our global economy.
Paul A. Ohme	elementary, secondary, and post-secondary mathematics and science education is critical to innovative scientific research and to our high tech economy.

Table A.15: Statement Messages for 108hhr91861

Author	Message
George Miller	We need to invest in our education system – to close the achievement gap, and to ensure access to a college education for all eligible students. President Bush's budget fails on both accounts.
Lisa Graham Keegan	As a nation, we need to dismiss our allegiance to antiquated systems, welcoming new ideas and initiatives based on proven results for students. NCLB offers the right incentive and we can wait no longer to capitalize on its improvements.
Maia Davis	Because the law discourages states from weeding out unknown candidates, early evidence indicates Federal tax dollars are being thrown at dubious enterprises.
Roderick R. Paige	No Child Left Behind extends the full promise of freedom to all of our nation's students. I can think of no more effective program to ensure the future strength, security and vitality of our nation.

Table A.16: Statement Messages for 108hhr92309

Author	Message
American Federation of Teachers	We support the use of valid and reliable assessments and the disaggregation and reporting of all mandatory state and district assessments so that we know how all students are doing and so that help can be provided to those who need it.
George Miller	This is not a problem of our children; it's a problem for our system.
Jane Rhyne	it invites the manipulation of the NCLB accountability system and operationally allows some schools and some school districts to escape portions of subgroup accountability.
James H. Wendorf	However, given the serious sanctions schools face for not delivering sufficient academic progress, NCLD also recognizes the possibility that students with learning disabilities and their parents might be subjected to numerous obstacles.
Rosemary King Johnston	But in order to make NCLB work for all students – and especially for students with disabilities – we must be able to look at growth in student performance over time, not just a snapshot from a test given on one day of the year.
Ricki Sabia	I urge you to preserve the accountability for students with disabilities in NCLB and to focus your efforts on the issues related to improved implementation.

Table A.17: Statement Messages for 108hhr92513

Author	Message
House Committee on Science and Technology	On international assessments, U.S. performance relative to other nations actually declines with increased schooling.
Wendy Ehnert	The Federal Government, through funding and leadership, can be an important part of this mission. [excitement about learning]

Table A.18: Statement Messages for 108hhr92756

Author	Message
House Subcommittee on Research and Science Education	The legislation seeks to recognize private entities for their outstanding contributions to K-12 science, technology, engineering and mathematics education.
Jay T. Engeln	Recognition programs do help get the word out to others and gives schools and/or businesses potential models and/or contacts to use in setting up their own partnership programs.
Nick Smith	Unfortunately, our schools aren't producing enough young people with the math and science skills necessary to meet demand.
Torrence H. Robinson	it is the lowest income students who suffer most from teacher turnover and attrition. The resulting effect is poorer teacher quality and lower student achievement.

Table A.19: Statement Messages for 108hhrg93983

Author	Message
Jon C. Porter	Today's students are tomorrow's workforce, and for that reason education is directly linked to America's future competitiveness in a changing economy.
Karen Butterfield	We need to treat our teachers as the answer to embracing excellence in teaching and in learning: because they ARE our resource.
Lewis C. Solmon	By providing an effective strategy for reform, TAP is working to turn teaching from a revolving-door profession into a highly rewarding career choice. The real reward will be the outstanding education available to each and every student in the country.
Raymond Simon	Improving the quality of instruction and, more specifically, putting a highly qualified teacher in every classroom, may well be the key to the success of the No Child Left Behind Act
House Subcommittee on 21st Century Competitiveness	The purpose of today's hearing is to discuss the importance of highly qualified teachers in improving academic achievement for all students – regardless of race, income, geography, English-fluency, or disability.

Table A.20: Statement Messages for 108hhr94513

Author	Message
Eric J. Smith	The No Child Left Behind Act has transformed the debate about public education in America from blaming societal issues outside of schools' control to a focus on what we do control – our ability to teach every child to rigorous standards.
George Miller	to address these problems and provide the Secretary with this authority, Senator Kennedy and I introduced the NCLB Fairness Act last week. It gives schools the flexibility to have their AYP for last year recalculated based on the Department's guidance on children with disabilities and limited English skills.
John A. Boehner	As other states release their test data, we're seeing similar proof that student achievement is on the rise and achievement gaps are closing.
Michael D. Casserly	The public should no longer wonder whether urban education can be saved. It can. The public should no longer worry about whether student achievement can be raised. It will be.
Margaret E. Raymond	But in relative terms, when the effects of the pre-existing achievement gap and accountability are taken together, accountability is seen to mitigate but not reverse a widening of the achievement gap. This is because whites gain more than blacks after accountability is introduced, so the racial achievement gap with blacks actually widens after the introduction of accountability.
Margaret E. Raymond	The Congressman raises an important question: while the details of NCLB at present focus on academic performance, an implicit assumption is that academic attainment should follow directly.
Marcus J. Newsome	if we expect schools to be great, we should also expect government to be great. And businesses to be great. And churches. And most importantly, families.
Paul G. Vallas	With this recognition comes our obligation to provide whatever resources we have to correct this historic imbalance, and the structure of the Act provides districts with the opportunity to do so.

Table A.21: Statement Messages for 108shrg1910410

Author	Message
Roderick R. Paige	It is about reform through high standards, leadership, and the use of proven educational methods. Only through the combination of these resources with the effective leadership exemplified in the President's No Child Left Behind initiative can American children and adults benefit.
Roderick R. Paige	while there are significant achievement gaps between low-income and minority students and their peers, the overall academic attainment of all high school students is inadequate and disappointing.

Table A.22: Statement Messages for 108shrg94491

Author	Message
David W. Anderson	Some of our native youth have been allowed to just “squeak” by because they have not been held to challenging standards. It is now time that we recognize that all of our children can learn and should be challenged to fulfill their greatest potential.
Phillip Martin	We are concerned that No Child Left Behind may be used to compare our children to other populations without accounting for these factors. The disproportionate socio-economic handicaps that tribal children and tribal school systems have had to face must be a part of the equation when examining performance and funding.
Terry Ben	The primary effect of No Child Left Behind is to concentrate tribal and Federal attention on finding the most equitable way to distribute what is in fact inadequate funding.
Victoria Vasquez	We are confident that the new subgroup accountability requirements, coupled with significant increases in funding for programs under the NCLB Act, will help close the the achievement gaps.

Table A.23: Statement Messages for 108shrg94993

Author	Message
Ellen B. Goldring	First, school choice is associated with high levels of parent involvement, commitment and empowerment. Second, school choice policies must address questions of equity that often emerge because of differential access to information and transportation between advantaged and disadvantaged families.
Hoover Institution	public education should be a menu or marketplace of educational opportunities offered by many providers that all families may choose among based upon what the family feels best fits the needs of each child.
John Kirtley	Our organization believes that every parent, not just those with enough money, should be able to choose the best school for their children.
Lamar Alexander	I can think of no more important priority for our Nation than quality schools. We need to figure out a fair way of funding them

Table A.23: Continued

Author	Message
	from Washington, D.C. without overwhelming them with regulations, and giving parents more choices.
Lamar Alexander	An annual \$500 Federal scholarship that would follow every middle- and low-income child in America to the school or other approved academic program of his or her parents' choice.
Lamar Alexander	If letting scholarships follow students to the colleges of their choice helped us build the best university system in the world, then why not use the same idea to help create the best schools?
Michael Bell	If we hope to avoid the worst case scenario of a future comprised of a significant proportion of low socioeconomic families draining our resources and threatening our security we must empower today's students to access the most effective education possible. Our history of funding schools to accomplish this goal has proven a failure.
Paul E. Peterson	American education today is beginning to have the transparency and accountability that it desperately needs. Properly designed, Pell Grants for Kids can provide meaningful school choice, the school reform stool can acquire its badly needed third leg.

Table A.24: Statement Messages for 109hhr20424

Author	Message
Bob Inglis	By teaching our children in the basic skills of math and science, you are sowing the seeds of a competitive workforce.
Cynthia L. Cliche	I believe the six NCTM principles – equity, curriculum, teaching, learning, assessment and technology – provide a solid mathematical foundation for all students, and they should be emphasized, funded and applied in every classroom in the United States.
House Committee on Science and Technology	While U.S. undergraduate and graduate education remains the envy of the world, the interest of, and the participation by U.S. students in science, technology, engineering and math is declining.
Sheila Jackson Lee	Truly, the areas of math and science are essential to our youth as well as to the health of our nation.

Table A.25: Statement Messages for 109hhrg21648

Author	Message
Andres Henriquez	Only in popular education can man erect the structure of an enduring civilization.
Lynn C. Woolsey	But it will be impossible for our country to continue to lead the world in innovation if our high school system is not among the best in the world.
Michael N. Castle	I am not yet sure if there is a federal role, or what that role would be, but continue to be committed to learning more and doing whatever I can to make this part of the education reform dialogue.
Tom vander Ark	the Gates Foundation believes there is a unique window of opportunity to redesign the American high school for the 21st century, and it is imperative – for both individual students and our nation – that we seize this opportunity and spur change at the local, state, and federal levels.

Table A.26: Statement Messages for 109hrg23691

Author	Message
Deborah Jewell-Sherman	In conclusion, in Richmond City Public Schools, we embrace the No Child Left Behind Act as a means for refined and deepened academic focus for all students.
Deborah Jewell-Sherman	The promotion of reforms and implementation thereof is extremely costly to districts. The funds directed towards the purpose are, however, reduced as student achievement increases. Funds are necessary for implementation of reforms and retention of reforms.
John A. Boehner	we will continue to examine the progress of NCLB implementation, and begin to lay the groundwork for the law's future.
Jon C. Porter	I look forward to bringing the benefits of the No Child Left Behind reforms to the high school level.
Kati Haycock	NCLB presses hard on the important issues of class and race and those issues – as critical as they are for us to face squarely – continue to be hard and uncomfortable issues for most Americans to confront.
Kati Haycock	The unfairness is that we let inequality persist for so long, not that we are confronting it now.
Margaret Spellings	With No Child Left Behind, President Bush and you in the Congress led our nation in an historic commitment to give every child a quality education. We looked ourselves in the mirror and said we would close the achievement gap by 2014

Table A.27: Statement Messages for 109hhrg26125

Author	Message
Rush D. Holt	We are slipping behind in this clamor for the top of the globalization mountain. Other nations are acting as we sit thinking of actions to take.
Ruben Hinojosa	Strengthening educational opportunities for Hispanic Americans from pre-school through graduate school must become a national priority.
Ralph Regula	The dreams of a better life take root in a foundation of solid education. Education creates the opportunity for sustainable livelihood, improves quality of health, reduces crime, raises industrial productivity, and increases the level of civic participation. It is essential to the preservation of democracy.
Vernon J. Ehlers	Fundamental research and science education are essential to advances in medicine, military applications and continued economic prosperity

Table A.28: Statement Messages for 109hhrg26798

Author	Message
Arden L. Bement Jr.	the Nation’s competitiveness depends on fostering creativity and innovation in all Americans. NSF takes this idea very seriously, and all of our programs seek to broaden participation in STEM by attracting and retaining under-represented groups in the STEM enterprise.
Bart Gordon	The Augustine report rightly states that “laying the foundation for a scientifically literate workforce begins with developing outstanding K-12 teachers in science and mathematics.”
Eddie Bernice Johnson	The issue of K-12 education in science, technology, engineering, and mathematics (STEM), is of critical importance. America is losing its competitiveness in these areas, as is evidenced by a loss of jobs in knowledge-intensive industries.
House Committee on Science and Technology	The quality of K-12 math and science education has been a growing national concern. Most recently, the National Academy of Sciences’ report Rising Above the Gathering Storm pointed to the relatively poor performance of U.S. students in math and science as a threat to the Nation’s long-term economic health.

Table A.28: Continued

Author	Message
Jerry F. Costello	Our children's education is not only the key to their personal but also to the success of our country's economic growth.
Lynn C. Woolsey	President . . . has frozen funding for early childhood education, underfunded the No Child Left Behind Act by \$55 billion, and cut student aid by \$12 billion. Those numbers represent our failure to help millions of low- and middle-income children realize their potential and their dreams.
Michael H. Honda	The President's American Competitiveness Initiative focuses almost exclusively on the development of curriculum for math, while the Augustine Report suggests that focusing on teacher education and professional development are the greatest areas of need.
Margaret Spellings	This global challenge requires bold action and leadership. America has done it before. Following the Soviet Union's 1957 launch of Sputnik, the world's first satellite, Congress passed and President Eisenhower signed into law the National Defense Education Act of 1958 (NDEA).
Margaret Spellings	The most important role the Federal Government can take to improve K-12 math and science education is to effectively implement the No Child Left Behind Act of 2001 (NCLB).
Shana L. Dale	We must encourage every segment of our population – girls and boys alike – from every walk of life, of every color and creed, to reach out and prepare for the opportunities of the 21st century.

Table A.29: Statement Messages for 109hhr27978

Author	Message
Charlie Norwood	it is imperative for Congress and the Administration to respond to this challenge and help our children reverse the trend. [IAG]
David B. Laird	For the first time in generations, the nation's children could face poorer prospects than their parents and grandparents did. We owe our current prosperity, security, and good health to the investments of past generations, and we are obliged to renew those commitments in education, research, and innovation policies to ensure that the American people continue to benefit from the remarkable opportunities remarkable opportunities provided by the rapid development of the global economy and its not inconsiderable underpinning in science and technology.
George Miller	We [democrats] believe that only by making this renewed and, more important, a sustained commitment to innovation that our nation will be able to maintain its global economic leadership, protect our

Table A.29: Continued

Author	Message
	national security and enjoy prosperity at home with good American jobs.
James H. McCormick	mastery of math, science and engineering will in large part determine whether this state [Minnesota] can compete.
James Jarrett	But when it comes to competitiveness, education reform has to begin with one thing: a massive improvement in the math and science foundation we give American students.
Lori Sturdevant	This is about as real as it gets. But there isn't a Sputnik. There isn't a Pearl Harbor. There isn't a 9/11. It is the frog sitting in the water, and the water is getting warmer and warmer.
Margaret Spellings	Education is the gateway to opportunity and the foundation of a knowledge-based, innovation-driven economy.
Margaret Spellings	The standards and assessment requirements of No Child Left Behind are, in fact, designed and intended to encourage mastery of challenging material and higher-order thinking skills.

Table A.30: Statement Messages for 109hhr27985

Author	Message
House Committee Education Workforce	we know this: after decades of failed reform efforts, coupled with hundreds of billions of taxpayer dollars spent with little or no success in closing the achievement gap, the impact of No Child Left Behind has been dramatic – and a positive step forward for students, teachers, parents, and taxpayers. We can’t – and won’t – take a step back.
George Miller	Our challenge with re-authorization next year will be to maintain the core values of the law – closing the achievement gap and helping all children become proficient in the knowledge and skills they need to graduate – while still being responsive to legitimate concerns.
Michael N. Castle	we are all engaged, as a country, on closing the achievement gap. This conversation is happening at all levels of government, amongst parents, academics and especially in our school systems.

Table A.31: Statement Messages for 109hhr28431

Author	Message
House Committee Education Workforce	Concerns that the test scores are not disaggregated in AYP calculations
Cynthia Kuhlman	Centennial Place stakeholders developed a vision and mission that sought to dispel any myths that poor and minority students could not achieve commensurate with other young Americans.
George Miller	At its core, No Child Left Behind is a civil rights law. By holding schools accountable for the education of all children, the law seeks to close the academic achievement gap between white students and minority students.
Jeff Archer	No, personal message. Reports in legal action in Connecticut.
John C. Brittain	I recommend that NCLB maintain the full provisions for disaggregation of data. In all cases of excluded students, school districts should use remedial measures to aid those students in need of improvement.
Lynn Olson Linda Jacobson	minority students are much more likely not to be counted than white students.
Ronald A. Peiffer	By applying a Confidence Interval, Maryland has been able to maintain a small minimum group size of five, thus ensuring that subgroups of students are not disappearing from the accountability system.
Raymond Simon	State accountability systems . . . our efforts to work with the States to develop valid and reliable methods of measuring achievement and disaggregating achievement data by groups of students.
Washington Post	Connecticut, although the wealthiest state in the country, also has the biggest achievement gap between white and minority students.

Table A.32: Statement Messages for 109hrg28839

Author	Message
George Miller	For these children, a good education is often their best and only hope for a prosperous future.
Howard P. McKeon	Some have raised concerns about the reliability of the status model and have suggested that a growth model would be more useful.
Joel I. Klein	But to criticize the heart of No Child Left Behind is to refuse to take responsibility for the achievement gap – the most serious civil rights, social, and economic crisis facing America today.
Kati Haycock	we have got to get beyond this never-ending quest for the perfect accountability system and turn to the hard work of curriculum development, teacher professional development, and leadership training for principals.
Marlene S. Shaul	The model also measures whether achievement gaps are closing by setting targets for designated student groups, similar to how it sets targets for schools as a whole.
Reg Weaver	we have a common mission and values based on our belief that a great public school is a basic right for every child.
William S. Sanders	the addition of a properly constructed growth component to the adequate yearly progress measure (AYP) will make NCLB fairer to schools and will provide positive benefits to a greater percentage of their student populations.

Table A.33: Statement Messages for 109hhr29626

Author	Message
Arne Duncan	Funding education is simply the best long-term investment Congress can make.
Dianne M. Piche	On the issue of the teacher-quality gap, we recognize that it is that it is obviously a major cause of the student achievement gap. But it is also clear to us that NCLB’s teacher-quality provisions are only a beginning. We believe that bolder action is needed by Congress to help states and districts craft innovative and effective solutions to bring and keep better teachers to the most challenging schools.
Henry L. Johnson	expecting all students to be on grade level in reading and math appears modest, it is nothing short of revolutionary, and we can’t get there without your help.
Judy Biggert	Through the hard work of state and local education leaders, we can ensure that every child – regardless of race, economic background, disability, or geography – has access to a first-class education.
Mary Penich Charleen Cain Barbara Lukas	Accelerated learning is another essential element in the process of narrowing the achievement gap. Low-achieving students who progress at the same pace as their more competent peers never catch up with them.
Paul Kimmelman	it would be meaningful to incorporate the concept of using knowledge-based solutions in conjunction with the work of the Institute of Education Sciences and other organizations working on credible research and development that will help educators be more successful implementing the accountability provisions of the law.
Phyllis McClure Dianne Piche William Taylor	Improving the quality and equitable assignment of teachers is a paramount civil rights issue for school children in this century.

Table A.34: Statement Messages for 109shrg20732

Author	Message
Brian K. Fitzgerald	While it is common for groups to come before the Senate and proclaim national crises, the data and trends that our initiative collected are truly shocking.
Ernie Fletcher	too many of our Nation's youth are dropping out of high school and too many high school graduates are unprepared for the demands of post-secondary education or work.
Elaine L. Chao	These key reforms will produce a workforce investment system that is responsive and agile enough to anticipate and respond to the opportunities presented by the 21st century economy, thereby promoting the success of both American workers and businesses.
Michael Enzi	We must ensure that everyone has an opportunity to achieve academically and obtain skills that they need to succeed regardless of their background.
Margaret Spellings	President Bush, with the help of the Congress, has laid the foundation for a comprehensive Federal approach to both preparing our citizens for a lifetime of learning and encouraging our education system to continuously make available opportunities for education and training, from early childhood through middle age and even the retirement years.
Margaret Spellings	Both agencies [ED & DoL] recognize that improving the academic preparation of our children and youth is an essential part of addressing the skills gap.
Steve Gunderson	it is my fervent hope that you will help our Nation avoid the deadly collision of workforce demographics and workplace skills already putting our economic future at risk

Table A.35: Statement Messages for 109shrg21951

Author	Message
David Beaulieu	There appears to be a growing incongruence between the purposes of title VII within No Child Left Behind and the general operating principles, and consequently the implementation of NCLB by States and the BIA for schools with Native students.
Daniel K. Inouye	Providing an effective, relevant and quality education is important to every nation in order to prepare future leaders with the skills necessary to address social, health, and economic conditions.
John McCain	The committee is deeply concerned about the academic performance levels and dropout rates of American Indians and Alaska Native students.
Leland Leonard	Responsible educators on Navajo have struggled for years to increase student achievement. Simply mandating student achievement without having a meaningful dialog on the definition of achievement and how to reach it will inappropriately label schools as failing.
Roger Bordeaux	Even though some of the discretionary funding has increased, the base money has not made a lot of impact. So I think that in looking at what needs to be done for schools, what has to happen is things inside the classrooms.
Victoria Vasquez	Our efforts to collect reliable data on the Indian population have yielded a number of useful data sources that can be used to hold educational agencies that serve these students, and us, accountable for the performance of Indian students across this Nation.

Table A.36: Statement Messages for 109shrg22340

Author	Message
Charles E. Smith	NAEP results, especially at the 12th grade and by race/ethnicity, give cause for concern about the state of knowledge of American students about U.S. history and civics. We ignore at our own peril the implications of these results for our Nation's future.

Table A.37: Statement Messages for 109shrg26056

Author	Message
Christopher J. Dodd	Budgets are about priorities. What priority could be more important than ensuring the future of our children by providing them with a first class education? How do we get to a first class math and science education if we don't have resources to fund the basics?
Michael Enzi	We must ensure that America's students are the best in the world, that they speak the language of success, and that as a country we get more than a passing grade.
Margaret Spellings	In this changed world, knowledge of math and science is paramount.
Margaret Spellings	To ensure a strong and prosperous America in the 21st century, our students must possess the mathematics knowledge that is the foundation of our Nation's long dominance in science, technology, and innovation; graduate from high school prepared to enter college or the globally competitive workforce, and master critical foreign language needed both for success in the global business arena and to ensure our national security. The President's budget request addresses each of these challenges.
Patty Murray	Today's children should be reminded that their counterparts in China and India are making quick gains in math and science. But our students need more than warnings about finishing their homework. They also need the Federal Government to support their efforts and provide opportunities for them to learn and progress academically.

Table A.38: Statement Messages for 109shrg26112

Author	Message
Darla Marburger	The Bush administration is strongly committed to ensuring that American Indians and Alaska Natives benefit from national education reforms and receive every opportunity to achieve to high academic standards. Recent data suggest that our investments in Indian education are beginning to pay off
Joseph A. Garcia	Academic studies show that Indian children flourish when their classroom experiences are built on our tradition, languages and culture.

Table A.39: Statement Messages for 109shrg26353

Author	Message
Hai-Lung Dai	A significant reason for allowing teachers who do not have sufficient content training to teach hardcore science courses is the unique American education philosophy, championed by the famous education philosopher John Dewey, that how one teaches is more important than what one teaches.
Roy Vagelos	The fact that U.S. students perform poorly on international assessments such as the PISA and TIMSS points to the need for increased rigor in our schools' math and science courses if students are to be prepared for work in the 21st century.
Tom Luce	while we are making good progress through the broad tools of No Child Behind, it is clear that we need to jumpstart improvement in math and science education through the American Competitiveness Initiative,

Table A.40: Statement Messages for 109shrg26426

Author	Message
Arden L. Bement Jr.	The 1995 TIMSS 12th grade study made an extensive effort to make the comparisons of populations as similar as possible. Yet, the of U.S. students compared with the 16 countries that agreed to participate in the study was very low. the study was very low.
Edward M. Kennedy	To reverse these trends and put America back on the right track, we must inspire a renaissance in math and science education.
Henry L. Johnson	No Child Left Behind reforms are taking hold and student achievement is rising, but we need to raise the bar again if we are to prepare our children for the jobs of the 21st century and benefit from increased global competitiveness.
James B. Hunt	the United States faces a competitive challenge not only from foreign workers. Across the United States, many corporate executives are saying there aren't enough Americans with the skills to fill job openings.
John E. Ensign	Effective metrics are the only way for Congress and the public to know how these programs are performing and if they are fulfilling their purpose.
Michael Enzi	work that must be done to ensure our students are the best in the world and they receive the training in math and science we will need as a Nation if we are to continue to be a leader in the world's marketplace.
Peter O'Donnell Jr.	The committee believes the education issue is the most critical challenge the United States is facing if our children and grandchildren are to inherit ever-greater opportunities for high-quality, high-paying jobs.
Peter O'Donnell Jr.	The reason for the decline is that after the 4th grade in the United States the number of new science and math concepts introduced is very low.
Tom Rudin	The fact that the results are poor reflects that U.S. students are not learning this material very well. This relates more to the lack of preparation of middle school teachers in math content knowledge and their ability to help their students understand this content.

Table A.41: Statement Messages for 109shrg27036

Author	Message
American Geological Institute	AGI strongly supports the President's initiative and in particular funding for improved science literacy for teachers and students, however, we do encourage the subcommittee to retain and provide support for proven and effective programs.
College Board	The Committee's support for expanded AP math, science, and world language courses and exams will prepare many more students for the opportunity to compete in a global environment and succeed in STEM fields in college and work. We respectfully urge that you fully fund the Administration's request for AP expansion.
Mary L. Landrieu	Title I funding, is the only Title that helps poor and lower middle-income children get the resources they need; to have the kinds of schools they need to be excellent.
Margaret Spellings	We continue to make good progress in implementing No Child Left Behind, with scores on State assessments up significantly across the country, and the National Assessment of Educational Progress showing real improvements in achievement gaps, especially in the early grades addressed by key NCLB programs like Title I and Reading First.
Margaret Spellings	States must have an equity plan in place to ensure that poor or minority children are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than are other children.

Table A.42: Statement Messages for 109shrg27768

Author	Message
Daniel K. Akaka	it is our responsibility as Government leaders to provide our youth with the resources and tools they need to become productive citizens and to fulfill their personal goals and ambitions.
Darla Marburger	Other analyses document the continued achievement gap between Indian and other students.
John McCain	One of the most important issues facing our Nation continues to be the education of our children. Providing a quality education for every child is critical not only to the prosperity of our Nation, but to ensuring that each child reaches his or her full potential.
William H. Wilson	Changes need to be made in the Elementary and Secondary Education Act as well as in the Higher Education Act to reflect U.S. policy regarding Native American language medium education

Table A.43: Statement Messages for 109shrg28848

Author	Message
John E. Ensign	it is absolutely imperative that we include metrics, measurements of effectiveness, for current and new programs.
Paul Dugan	High school should be a Gateway to success for all.
Project Lead the Way	Contextual, project-based learning, where students can apply what they have learned in mathematics, science and English classes, supported by rigorous and relevant curricula and professional development, must be part of the solution that any Federal legislation or investment pursues.

Table A.44: Statement Messages for 109shrg49104164

Author	Message
State Educational Technology Directors Association	The targeted funds for educational technology that are available through the EETT program are still very much needed as we work to ensure that all students are ready to compete in the global economy.
Teach for America	Our mission is to build a movement to eliminate the educational inequality that exists in our country today.

Table A.45: Statement Messages for 109shrg49104171

Author	Message
Margaret Spellings	American companies and universities currently spend as much as \$16 billion annually on remedial education to teach employees and students the basic skills they should have mastered in high school.
Margaret Spellings	black, Native American, and economically disadvantaged students participate in AP courses and exams at a lower rate than the national average.
Margaret Spellings	The President's High School Initiative, including \$1.24 billion for High School Intervention and \$250 million for High School Assessments, is specifically targeted at the students you describe, particularly those students most at risk of dropping out, who tend to be poor and minority.
Thomas Harkin	So with this new budget, it seems like we're again asking for more reforms without really getting the resources; we're asking local school districts to make dramatic academic gains at the same time that we're cutting their funding.

Table A.46: Statement Messages for 109shrg49104190

Author	Message
Arlen Specter	Title I funding, is the only Title that helps poor and lower middle-income children get the resources they need; to have the kinds of schools they need to be excellent.
Margaret Spellings	We continue to make good progress in implementing No Child Left Behind, with scores on State assessments up significantly across the country, and the National Assessment of Educational Progress showing real improvements in closing achievement gaps, especially in the early grades addressed by key NCLB programs like Title I and Reading First.
Margaret Spellings	Although States and school districts are making significant progress in meeting the HQT requirement, there is still a lot of work to do to ensure that each State can meet the goal that every child is taught by a highly qualified teacher by the end of the 2005-2006 school year.

Table A.47: Statement Messages for 109shrg59104229

Author	Message
American Geological Institute	AGI strongly supports the President's initiative and in particular funding improved science literacy for teachers and students, however, we do encourage the subcommittee to retain and provide support for other proven and effective programs.
College Board	The Committee's support for expanded AP math, science, and world language courses and exams will prepare many more students for the opportunity to compete in a global environment and succeed in STEM fields in college and work. We respectfully urge that you fully fund the Administration's request for AP expansion.

Table A.48: Statement Messages for 109shrg97751

Author	Message
Lawrence C. Patrick III	We sincerely believe that Ms. Spelling is the type of caring and focused individual needed to keep the Department moving forward to help all of the Nation's children but particularly the children who are being most ill-served by our traditional systems of education.
Edward M. Kennedy	There is nothing more basic to our values as Americans than good schools.
Rebecca Nieves Huffman	The Latino community is in dire need of access to high quality education options.
Michael Enzi	Thanks to that important legislation [NCLB], our Nation's classrooms are more effective and efficient places of learning and our children are benefiting from that.
Margaret Spellings	In the early and mid 1980's we focused on fixes and fads with little attention to results for kids.
Margaret Spellings	Prior to the passage of NCLB, critics predicted that almost immediately vast numbers of schools would not make AYP. This has not been the case.
National Center Learning Disabilities	We have begun to see the results of NCLB as it seeks to close the achievement gap for students with disabilities.
David Beaulieu	Native students for a variety of reasons that have still not adequately been addressed, continue to struggle in the mainstream education system.
Anne L. Bryant & George H. McShan	her intense leadership in ensuring that public schools and school districts across the country are held to a higher level of accountability for the academic performance of all students regardless of socio-economic conditions, race, ethnicity, or disability.
Sandi Borden	As a result, Texas elementary schools significantly closed the gap between diverse student groups
Wendy Kopp	Ms. Spellings is a leader in the effort to close the achievement gap that exists between students who grow up in low-income and high-income communities.

Table A.49: Statement Messages for 110hrg33801

Author	Message
Deborah L. Wince-Smith	I want to urge the Committee and the Congress to take action this year on a comprehensive competitiveness agenda that at a minimum includes increased research funding, enhanced STEM education, high skilled immigration reform and permanent tax incentives for investment in research and development.
House Committee Science & Technology	Why is the promotion of science and technology so critical to America's prosperity? Where do we stand today, and where do we need to be in the future?
Harry E. Mitchell	If we don't invest now and invest well, we will fall even further behind. Students today will be the innovators keeping American companies and their operations here tomorrow.
Harold McGraw-Hill	Frankly, as a nation we have been too complacent. It has been 18 months since the National Academies released the Gathering Storm report.
Harold McGraw-Hill	two Business Roundtable priorities: recruiting math and science teachers with disciplinary content knowledge and closing the achievement gap in student performance.
National Academy of Sciences	Having reviewed trends in the United States and abroad, the committee is deeply concerned that the scientific and technical building blocks of our economic leadership are eroding at a time when many other nations are gathering strength.
National Academy of Sciences	Mathematics and science achievement in California is lagging, and the ramifications for our state are alarming.
Norman R. Augustine	Answers to several questions by representatives
Ralph M. Hall	most American high school graduates are either not sufficiently prepared or not sufficiently motivated to pursue advanced study in science, math, engineering or technology fields. This is a problem.

Table A.50: Statement Messages for 110hhr34015

Author	Message
Allan Olson	We will gain a much more complete and useful picture of the performance of our schools if we include the growth of individual students in our accountability systems.
George Miller	I would like to see us be responsive to legitimate concerns while maintaining the core values of the law, providing an equal opportunity and an excellent education to every child, regardless of their race, their family income or disability.
Howard P. McKeon	Adequate yearly progress is a benchmark that makes NCLB different from other education laws that came before it. . . . And for that reason, it is vital that the concept remains in place.
Linda Darling-Hammond	the measures used to gauge school progress must motivate continuous improvement and attend to the range of school outcomes and conditions that are needed to ensure that all students are educated to higher levels.
Peter McWalters	Congress to allow states to include additional relevant data in making judgments about school progress, allowing states to differentiate consequences for schools that have missed their annual targets, investing more in state capacity to assist and intervene in districts and schools that have missed their targets, and creating a new process for innovative models and a greatly revised system of peer review that would allow states to continuously innovate in accountability and other areas – with proper guarantees for results.
Valerie Woodruff	In order for states to pursue stronger, more robust systems of accountability, a partnership of support and technical assistance must be in place. States need ongoing technical assistance in order to build a strong knowledge base about accountability models. They need to benefit from research about which models are most effective and why. They need continuing support in development and improvement of data systems.

Table A.51: Statement Messages for 110hhr34016

Author	Message
Dane	Americans believe that other nations are more committed to education.
Linn	America's economic future is inextricably linked to education and the public's perception of our education system. Simply put, American cannot lead the new global economy if our educational system is lagging behind.
Ruben Hinojosa	It is no accident that one of the key components of President Johnson's war on poverty was the Higher Education Act of 1965.

Table A.52: Statement Messages for 110hhr34017

Author	Message
Beverly Young	For almost two decades, meeting the academic, social, and emotional needs of ELLs has been a priority within the CSU in preparing future teachers and in professional development that serves current teachers in the state.
Cornelia M. Ashby	For NCLB to reduce or to eliminate the achievement gaps that belie our Nation's commitment to universal educational opportunity, the officials at all levels of government must better serve our large and growing ELL student population.
Dale E. Kildee	we owe it to those children [ELL] to ensure that their schools have the resources and support to provide them with the education they need and deserve.
Francisca Sanchez	we see an alarming trend where the majority of the ninety plus schools in Program Improvement are there based on the academic gaps experienced by our English Learner students.
Peter Zamora	If the large and growing population of English Language Learners in our public schools does not improve its academic achievement levels, NCLB will not meet its goals and our nation's economic competitiveness will suffer.

Table A.53: Statement Messages for 110hhr34417

Author	Message
Jane Rhyne	Further refinements and revisions in the act [NCLB] to acknowledge student progress in the accountability and assessment system, to enhance the level of focus and resources devoted to effective instructional practices, and to allow sufficient flexibility to align our teacher qualifications to the instructional needs of our students would help overcome many of the operational problems that attract so much attention at the local level.
Martha L. Thurlow	actually shifting practice is labor intensive, complex work, and requires resources and leadership. I would also suggest it takes a long-term commitment to intensive and focused professional development, both preservice and inservice.
Rebecca H. Cort	NCLB's greatest potential benefit to students with disabilities may depend on its ability to ensure strong general education programs that eliminate inappropriate referrals and increase the opportunities for meaningful integration of students with disabilities into productive general education environments staffed with highly qualified teachers who have the tools to meet the needs of all students.
Rachel Quenemoen	Any adjustments to accountability systems should be made for all students, not just one sub-group, with consideration and careful monitoring of intended consequences and unintended consequences for students overall and for sub-groups.
Mary K. Lose	[with regard to most at-risk learners] NCLB Act has not entirely met its promise to children, their parents, teachers, and schools.
Steve Burroughs	We simply must address these opportunity gaps if we have any hope of tackling achievement and skills gaps.

Table A.54: Statement Messages for 110hhr34604

Author	Message
Elizabeth W. Schott	A more progressive, psychometrically reasonable, growth-based model of accountability in the reauthorization of No Child Left Behind would go a long way toward guaranteeing that McDowell’s reform efforts are sustained and energized long enough to sweep up all of our into a wave of success.
Fred Tempes	Although we can do better, almost no one in the system believes these out-year goals are attainable for all schools and districts.
Melanie Blake	NCLB has been a driving force for all schools to take a deep look at our students, and in particular, to focus on students by subgroup. We recognize that there is an achievement gap, especially for students with disabilities, English learners, and economically disadvantaged students.
Sharon E. Liddell	Incorporating new areas of targeted accountability and flexibility, while acknowledging progress, all offer the promise of an accountability system that will fairly and accurately reflect the performance of students, schools, and school districts

Table A.55: Statement Messages for 110hhr34631

Author	Message
George Miller	We are far from solving this dropout crisis
Jason Altmire	The impact of these students dropping out of high school has severe consequences both for the students who drop out and for our nation as a whole.
Jane Norwood	In today's world we, as education leaders, must communicate the message that a high school education – a high school diploma – has become a bare necessity and should be a minimum expectation, if not a basic right, for all students. We have an obligation to protect this right.
Maria Robledo Montecel	In this country, not so long ago, it seemed unreasonable to think that we would have universal education through primary school. We have that. Now we must have universal education through high school.
Robert Wise	By appropriately extending its education focus to include the needs of students in middle and high schools, the federal government can move the nation from “no child left behind” to “every child a graduate.”

Table A.56: Statement Messages for 110hhr34990

Author	Message
George Miller	One of the very best ways we can close the achievement gap is to close the teacher quality gap.
Howard P. McKeon	If we are truly serious about placing high-quality teachers in every American classroom, then this Committee must explore ways to include proposals addressing collective bargaining agreements in the re-authorization process.
John D. Podesta	Not only are we failing to attract new teachers to the field; we are also failing to retain them.
Joel I. Klein	schools no longer have to guess about teacher quality, either. It is something we can and should measure. I hope the next version of NCLB will motivate schools to do this, just as we're doing it in New York City.
Joseph P. Burke	A re-dedication to placing U.S. education number 1 in the world is critical to our economic and political future as a world leader. Our children deserve no less – our citizens must have public policy that places excellence and equity as centerpieces of education outcomes.
Jarvis Sanford	We cannot have a healthy, vibrant America while so many of our children are truly left behind with no real options or tools to develop anything good for their future.
Linda Darling-Hammond	The current accountability provisions of the Act create large incentives for schools to keep students out and to hold back or push out students who are not doing well.

Table A.57: Statement Messages for 110hhr35233

Author	Message
Brian Baird	We are very concerned that American students are not achieving their potential in science and math education. This is a concern not only as we look at competing in a knowledge-based global economy, but also when we look at access to high-paying, technology-based jobs in this country.
House Committee Science & Technology	A multitude of studies over the past twenty years have documented the downward slide of American students' proficiency and participation in science, technology, engineering and mathematics (STEM) fields.
Michael C. Lach	We have made great progress with mathematics and science instruction in Chicago.

Table A.58: Statement Messages for 110hhr35664

Author	Message
Chester E. Finn	In Washington, these debates about prescription versus flexibility and the proper federal role quickly become ideological.
Carol Johnson	I am a strong believer in flexibility and the accountability that should accompany it.
Eva L. Baker	Accountability tests have swung education strongly toward institutional goals and away from those of the individual.
John F. Jennings	Even for subgroups that showed evidence of gaps narrowing, the gaps in percentages proficient often amounted to 20 percentage points or more, suggesting that it will take a concerted, long-term effort to close them.
Kathleen N. Straus	it is also our belief that modifications are necessary to the amendments made in the 2001 re-authorization.
Linda Darling-Hammond	The next important step is to ensure that the range of things schools and states pay attention to actually helps them improve both the quality of education they offer to every student and the quality of the overall schooling enterprise.
Michael N. Castle	As I have said, I believe strongly in No Child Left Behind. The importance of closing the achievement gap cannot be overstated, and I believe Mr. McKeon's bill will help states and local school districts close that gap even more quickly.
Rick Melmer	Flexibility should not be understood as bending the rules, but should rather be available whenever it makes the best educational sense for students.

Table A.59: Statement Messages for 110hhr35842

Author	Message
Arthur J. Rothkopf	What’s at stake is nothing less than the continued success and competitiveness of the American economy – and the continued viability of the American Dream.
Sandra Baxter	If the United States is to maintain a competitive place in the global economy, it must address the literacy needs of adults who are either already in the workforce or who should be, but do not have the basic literacy skills.

Table A.60: Statement Messages for 110hhr37638

Author	Message
Antonia Cortese	Parents, teachers, elected officials and others have called for substantive changes to NCLB. This draft does not appear to address those concerns adequately, and it is clear that more work needs to be done to fix the law’s fundamental problems.
Andrea Messina	While significant improvements must be made to NCLB to achieve that goal, we cannot afford to back away from our insistence on holding the same high expectations for all children paired with meaningful accountability for results based on objective measures of progress.
Adria Steinberg	There is no more critical goal than increasing the number of young people who graduate from high school and ensuring that these graduates are ready for college and careers.
Brian Gong	the aspirational goal of 100% of the students proficient by 2013-14 is not a credible goal. It is possible to define goals that will be challenging, rigorous, equitable, and possible.
Barry Stark	We strongly urge you to commit to your nation’s schools in budget as much as in law and ensure that the necessary level of funding is appropriated.
Robert Wise	NCLB doesn’t do much to address what is a significant crisis in this country – the millions of students who are leaving our high schools, with or without a diploma, unprepared for their future.
Center for Educational Policy	Raising the academic achievement of all students and eliminating the achievement gap for various groups of students must remain as national priorities.

Table A.60: Continued

Author	Message
Daniel J. Losen	We believe that the proposed revisions to NCLB should foster greater equity in educational opportunity for American children, and substantially improve learning and graduation levels. With further improvements to the excellent beginnings in this draft, we believe that educators and communities across the country will find that their concerns have been heard along with new inspiration to help achieve its challenging goals.
David L. Brewer III	We know that with adequate resources we can replicate the Banning Senior High School model around the District, but we need Congress to pass a law that will provide the much needed flexibility, resources, and room to develop and implement innovative and proven programs.
Dianne M. Piche	We believe education is a fundamental civil right. We also believe that NCLB represents our nation's most serious commitment at this time to closing our nation's persistent academic achievement gaps – gaps that inflict enduring pain and injury on our most vulnerable children, their families and communities.
Delia Pompa	Gutting NCLB's accountability measures would be a major setback for members of Congress, advocates, educators, parents, and students hoping to build on this public will to improve our public schools.
Frances Bryant Bradburn	the effective use of technology throughout education is critical to preparing our students for a global marketplace.
George Miller	As a nation we are not offering teachers the respect and support they deserve, and as a result we are facing a teacher shortage crisis.
Joan E. Wodiska	Our nation has a powerful incentive to improve the education pipeline. In the next decade, two-thirds of new jobs will require some post-secondary education beyond a high school degree. To be competitive and create the conditions for strong economic growth, states need to help all of their residents increase their skills and be prepared for lifelong learning.
James Kohlmoos	Through a robust system of support that emphasizes rigor and relevance and the use of scientifically valid research in its solutions, we believe that the increasingly urgent needs for turning around low performing schools can be effectively met.
James M. McPartland	Moving ahead now with this new important emphasis on high school reform will literally save thousands of American students each year from dropping out with all the means in success for the individuals and for American society.
John	low-income, African American, and Latino children consistently get

Table A.60: Continued

Author	Message
Podesta	less than their fair share of good teachers. This must change,
John Schnur	The fact that taking these successes to scale is very hard, complex work – that we don’t have all of the solutions yet – should not diminish our commitment to our young people or our educators who are working tirelessly on what they rightly see as America’s top domestic priority.
Joshua Wyner	high-achieving lower-income students disproportionately fall out of the high-achieving group during both elementary and high school.
Kevin Carey	The first priority of this committee should be to further strengthen that commitment to educational equity while embracing a new set of needed reforms for the years to come.
Kati Haycock	The focus on teacher quality as a key driver of closing the AG must be renewed and strengthened because unequal opportunity still is a huge challenge.
Kristan van Hook	Current policies discourage those who are effective teachers from staying in the teaching profession and those who could be great teachers from entering altogether, and they offer few incentives for strong teachers to take on tougher assignments.
Linda Darling-Hammond	Underneath the United States’ poor standing is an outcome of both enormous inequality in school inputs and outcomes and a lack of sufficient focus for all students on higher-order thinking and problem-solving, the areas where all groups in the U.S. do least well on international tests.
La Ruth H. Gray	while eliminating the achievement gap is a worthy goal – and we agree that it is – that this is not the stated purpose of Title I, nor the standard for marking its success.
Michael A. Resnick	we suggest that as you consider specific approaches that may sound right on paper, that you take pains to determine whether they can actually work where it counts: in our schools.
Michael Cohen	Most high performing countries – with national, state or local assessments – operate education systems in a far more coherent policy environment than we do in the U.S., and take different approaches to accountability, professional development for teachers and principals, and other key features of the education system than we do.
Michael D. Casserly	the Council has substantial concerns with the draft bill. We have submitted 30 pages of detailed comments and recommendations on which we pledge to work with the committee.
MaryKate	Performance based pay systems should be a small part of a

Table A.60: Continued

Author	Message
Hughes	comprehensive plan to improve the recruitment, retention, and training of quality teachers.
Michael N. Castle	Congress has the unique opportunity to work in a bipartisan way to create a bill which strengthens the law while at the same time maintains its core principles of accountability, flexibility and parental choice.
Nelson Smith	As the Committee works to create NCLB 2.0, we urge that you put much stronger emphasis on creating new, high quality public charter schools where they are most needed – schools that will foster radically higher academic achievement for children who are still, today, left behind.
Peter Zamora	If ESEA reforms are ineffective for these large and growing student populations [Latinos] that disproportionately suffer from low academic achievement, ESEA will be ineffective in reforming our public education system as a whole.
Rudolph F. Crew	Common national standards and assessments will eliminate the intellectual and political clutter around expectations, and will force a new focus on the more technical obstacles impeding equity in education.
Reg Weaver	If the only measures we really value are test scores, rather than some of the other indicators of a rich and challenging educational experience and set of supports provided to students, then we will have missed the mark again about adequately serving and educating all children. We will have avoided yet again the more difficult discussion of what services AND outcomes are important for all stakeholders to be held accountable.
Stephanie J. Jones	The draft appears to move in the right direction on this issue by proposing to close the comparability loophole that currently allows school districts to provide high-poverty schools with less state and local funding,

Table A.61: Statement Messages for 110hhr38056

Author	Message
Francis Fennell	Mathematics educators are particularly encouraged by new investments in teacher recruitment and retention programs, including the changes made to the Noyce Scholarship program, and a new Math Now initiative, which will help mathematics teachers teach students who are the hardest to teach.
Susan L. Traiman	Business Roundtable believes the highest priority for STEM education policy should be recruiting, training and retaining many more well-qualified STEM teachers.

Table A.62: Statement Messages for 110hhr41066

Author	Message
House Committee Science & Technology	Committee expects Mr. Gates to address issues crucial to our country's competitiveness including a commitment to math and science education, federal investments in research and development, policies that encourage innovation, and the role of technology in our economic growth.
William H. Gates	we are failing to make the investments in our young people, our workers, our scientific research infrastructure, and our economy that will enable us to retain our global innovation leadership.

Table A.63: Statement Messages for 110hhr42335

Author	Message
Francis Fennell	A culture of equity maximizes the learning potential of all students.
George Miller	Nothing is more important for the future of our country than building a world-class education system that will give every child the opportunity to succeed.
Howard P. McKeon	Unfortunately, in far too many cases our children are being outperformed by their peers around the world. We know that educational excellence today means international competitiveness tomorrow, and that's why it is so important that we take steps to improve educational opportunities for all students.
Jason Altmire	In order for our nation to remain the preeminent economy in the world, it is critical that we provide every student with, at a minimum, a basic level of math literacy.
John Castellani	The education and workforce policies and programs of the last century were not designed to meet the challenges we are facing today.
Laura Slover	Teacher capacity is one of the greatest challenges in making more advanced mathematics classes available to more students at the secondary level.
Mary Ann Wolf	We ask that you specifically recognize and support the role of technology in all education legislation, including throughout the Re-authorization of ESEA and the America COMPETES Act. We cannot afford to miss the opportunity that technology provides to engage students, to improve instruction and teacher quality, and to ultimately raise student achievement in math so that our students are prepared for the 21st Century

Table A.64: Statement Messages for 110hhr43311

Author	Message
Arne Duncan	Tapping the potential of underprivileged, inner-city children represents the greatest educational challenges facing our country.
Beverly L. Hall	The Atlanta Public Schools hasn't claimed victory yet. We are still climbing the tough path to total transformation, but with achievement gaps melting away and the strong support of our community, our goal is in sight.
George Miller	We know now that while the achievement gap has narrowed over the last six years, our schools and students are still not making enough progress. We also know that our students are falling behind students in other countries when it comes to mastering basic skills, like math, science, and reading.
Joel I. Klein	In New York City, we have refined accountability, giving schools and families tools to assess where students are and devise plans to improve and giving administrators the information necessary to ensure that schools are fulfilling their responsibilities to students.
Joel I. Klein	The next generation of accountability must increase the emphasis on graduation rates and post-secondary readiness, which are often overlooked in the current focus on improving student test scores.
Michelle Rhee	like many other school districts, DCPS also has historically had a culture driven more by politics and adult concerns than by the needs of children.
Michelle Rhee	Another challenge continues to be closing the achievement gap experienced by many of our ELL's.
Michael R. Bloomberg	unfortunately, there are too many people who accept the achievement gap as an inevitable result of social and economic factors that are out of a school's control.
National Alliance of Black School Educators	education is already an explicitly recognized constitutional right under all fifty state constitutions and need only be appropriately implemented.

Table A.65: Statement Messages for 110hhr43470

Author	Message
Carlo Parravano	These school-business partners are setting high but achievable goals, working together to reform key elements of the school system, mobilizing community support for reform, and setting the agenda for education reform at the state and national levels.
Exxon Mobile Corporation	the education programs that we support are designed to motivate and inspire young people to pursue careers in science, technology, engineering and mathematics (STEM) and to increase opportunities for women and members of minority groups.
George Miller	I am a firm believer that the best thing we can do to help our children succeed in math, science, and every other subject is to invest more in the success of their teachers.
Howard P. McKeon	Here in Washington, we clearly recognize the need to enhance student achievement in the STEM fields. In fact, there seems to be no shortage of federal programs and funding streams focused on STEM advancement.
Jason Altmire	Today's 21st century economy requires increased levels of understanding of engineering and technology fields. The foundation for this learning is math and science, but the U.S. is falling behind.
Melendy Lovett	American innovation is a top policy priority for TI. The key elements needed for the U.S. to sustain its technology leadership are: investing in basic research, welcoming the world's brightest minds, extending the R&D tax credit – and perhaps most importantly for the long-term – improving math and science education.
Phil Mickelson	While public-private partnerships are helping to pave the way to improved math and science education across the country, I would encourage congressional leaders to fund additional programs that strengthen math and science education, provide teachers with additional professional development opportunities and help ensure that the United States remains the most innovative nation in the world.
Tom Luce	Reinforcing math and science is the most common-sense way for our country to grow economically and to maintain our competitive leadership in the world.

Table A.66: Statement Messages for 110hhr44214

Author	Message
Stanley Holder	the education of our children is everyone’s responsibility. Assessments, and the resulting AYP determinations, are one important measure used to determine the quality education children are receiving.

Table A.67: Statement Messages for 110jhr33575

Author	Message
Edward J. McElroy	The AFT wants an accountability system that is fair and accurate – one which ensures that no group of students is ignored

Table A.68: Statement Messages for 110jhr33757

Author	Message
Arthur J. Rothkopf	we are committed to achieving the goals of No Child Left Behind (NCLB). We strongly urge Congress to act swiftly this year to re-authorize this law and strengthen its core principle of accountability to ensure that all high school students graduate academically prepared for college, citizenship and the 21st century workplace.
Business Coalition Student Achievement	We call on Congress to strengthen and improve NCLB provisions and funding, while respecting the fundamental features of this historic education law that are designed to raise student achievement and close achievement gaps
David Griffith	performance gaps don’t just exist in terms of test scores. There are also significant gaps among groups of students in terms of dropout rates, placement in advanced classes, who gets good teachers, and who goes to college.

Table A.68: Continued

Author	Message
Elizabeth Burnmaster	the reauthorized Elementary and Secondary Education Act (ESEA) must evolve to fit with the next stage of standards-based reform, shifting from the law's current focus on prescriptive compliance requirements to a dynamic law focused on providing real incentives for innovative state and local models – along with fair and meaningful accountability for results.
Edward M. Kennedy	If we shortchange our schools, we are shortchanging America. Time and again, I have heard from teachers, principals and administrators desperate for financial help to carry out these reforms, especially in low-performing schools. We know we can do better. All we need is the will to do it.
George Miller	We must remain dedicated to the principle that every child deserves a first-rate education because we know that every child, if given the opportunity, can learn and succeed.
Howard P. McKeon	I believe we need to look for new and innovative ways to get the best teachers possible into our nation's classrooms, and I believe we need to work together to find the appropriate balance between accountability and flexibility, where appropriate.
Michael D. Casserly	NCLB, in its current form, is burdensome and demoralizing to teachers, and yet they continue to adhere to changing requirements so they can continue to teach. It is unacceptable to pose on them another unfair accountability measure.
Michael Enzi	It is clear there is no silver bullet to fix schools that are falling behind. But, with some assistance and knowledge, schools can be turned around and excel.
National Association Secondary School Principals	the disconnect that exists between policy created in Washington, D.C. and the realities that affect teaching and learning at the school building level.
National School Boards Association	Many school boards believe that some of the current provisions in the law do not recognize the complex factors that influence student performance.
Phil Hare	the law's strict and punitive nature has discouraged new teachers from entering the field and has made it difficult to retain quality teachers with advanced degrees. Additionally, the focus on testing has been a great disservice to our children and populations of students are being left behind.

Table A.68: Continued

Author	Message
Reg Weaver	While one of the primary purposes and goals of NCLB is to close achievement gaps, I do not believe that has been the outcome.
Wade J. Henderson	Access to a high quality public education is still a fundamental right upon which all others depend; and yet 50 years later, the promise of Brown remains unfulfilled.

Table A.69: Statement Messages for 110shrg33885

Author	Message
Edward M. Kennedy	We passed the No Child Left Behind Act to tackle these issues. We're making progress, but we need to make changes to the law and make it work better for our schools and our children. And we need to provide the resources to support the reform.
Michael Enzi	To remain competitive in a global economy, we cannot afford to lose people because they do not have the education and training they need to be successful.
William H. Gates	all of the evidence indicates that our high schools are no longer a path to opportunity and success, but a barrier to both.

Table A.70: Statement Messages for 110shrg33926

Author	Message
College Board	The AP Program is an important tool in this Nation's efforts to increase its economic competitiveness.
Institute of Education Sciences	Support for other issues may come and go, but recognition of the importance of education and the government's opportunity to improve the state of education in our Nation seems only to grow.

Table A.71: Statement Messages for 110shrg34052

Author	Message
Amy Wilkins	American system of education is rigged to all but ensure that low-income children – the very children who need the most effective teachers to help them achieve their potential and catch up with their peers – don’t get the teachers they need.
Beverly Young	The California State University (CSU) has brought together its range of programs in science and mathematics leading to a baccalaureate degree and to a teacher education credential to address severe teacher shortages in these fields.
Edward M. Kennedy	It’s unacceptable that America’s most at-risk students are too often taught by the least prepared, the least experienced, and the least qualified teachers.
Lamar Alexander	Since I don’t quite know how to have a perfect parents program, focusing on teachers is very important.
Linda Darling-Hammond	unlike other industrialized nations, especially those that are the highest-achieving, the United States lacks a systematic approach to recruiting, preparing, and retaining teachers.
Linda Darling-Hammond	Evidence in medicine as well as teaching indicates that where assessments do not fairly represent professional practice, incentives can be created to avoid serving high-need clients, which works against the goals of the system.

Table A.72: Statement Messages for 110shrg35072

Author	Message
Edna E. Varner	Schools want the promises of accountability, but they want to feel equal to the challenges accountability brings.
Edward M. Kennedy	we can't remain bound to the schoolhouse model of past decades. We need to bring our middle and high schools into the 21st century.
John D. Podesta	the lack of basic educational attainment unduly consigns millions of our young people to a life of low earnings and poverty.
Robert Balfanz	We are at a moment when well-conceived action by the Federal Government can play a catalytic role in ending the Nation's dropout crisis and in so doing change the Nation fundamentally for the better.
Robert Wise	The time is right for the Federal Government to take bold leadership in advancing secondary school reform – leadership that is appropriate to the crisis and in line with the Federal Government's tradition of intervening to assure the security of the Nation, reduce poverty, increase equity, and advance research to inform effective practice.
Tony Habit	low expectations are a cancer that can weaken a school enough to make significant changes in teaching impossible.

Table A.73: Statement Messages for 110shrg35329

Author	Message
Deborah Jewell-Sherman	Nationally, schools and school districts are in desperate need of additional Title I funding to meet the increasing NCLB performance requirements, to address mandated NCLB expenditures, to retain highly qualified teachers, and most importantly, to make significant progress in closing student achievement gaps.
Gene Wilhoit	CCSSO has been working closely with its members, with other national organizations participating in the Data Quality Campaign, with the Bill and Melinda Gates Foundation, and with the U.S. Department of Education in an effort to expand States' data capabilities, including the development of a Center for State Education Data.
John F. Jennings	The Federal role in education has expanded from affecting about 25 percent of students who were "at risk" to affecting all students, while the Federal share of total revenues for elementary and secondary education has reached only about 8 to 9 percent, even with those earlier funding increases.
Margaret Spellings	We think one way to close this gap is a relatively obvious one: give high schools their share of Title I funding.

Table A.74: Statement Messages for 110shrg37293

Author	Message
Joseph Abeyta	by the time we start measuring academic achievement of students in the third grade, there already exists an achievement gap.
James R. Mountain	No Child Left Behind is in fact having the opposite affect of its supposed intent by leaving too many of our children behind at a tremendous cost and loss of our social capital, which is of utmost importance to the well-being of our future. It is morally and legally indefensible to allow this to happen.
VerlieAnn Malina Wright	NIEA is committed to accountability, high standards and rigorous education of our children; however, the implementation of NCLB by the Federal Government does not enable Native students to meet their academic potentials given the lack of consideration of their cultures, languages, backgrounds, and identities.
Veronica C. Garcia	While members of various ethnic groups have been at the bottom of the achievement gap I contend that the issue is related more so to poverty and to the individual's facility with the English Language than their ethnicity.

Table A.75: Statement Messages for 110shrg45589

Author	Message
Cook Inlet Tribal Council	Nationwide research as well as the Alaska Native/American Indian community have identified the need for improved cultural competence as a primary means to mitigating and alleviating the academic underachievement of Native students.
Carl Rose	AASB is working with partners across Alaska to change the environment in which children and youth live.
Jay Smink	the dropout crisis can be corrected with a sustained effort at all governmental levels and with the total commitments from all school and community leaders working collaboratively.
Larry LeDoux	The solutions to low graduation rates will come from the students themselves, their parents, the schools, and the broader society.
Mark Hamilton	Unfunded mandates often force good people and even better programs to cease, as institutions reorganize around the mandate. What is needed is both sound policy and adequate funding.

Table A.76: Statement Messages for 110shrg69104283

Author	Message
Institute of Education Sciences	The Statewide Data Systems program supports competitive awards to State educational agencies to foster the design, development, and implementation of longitudinal data systems that would enable States to use individual student data to enhance the provision of education and close achievement gaps.

Table A.77: Statement Messages for 111hhr47611

Author	Message
Alejandro Grajal	Investing in informal science education is crucial to maintain the world leadership position of the United States in science education.
Andrea J. Ingram	In a technology-driven world, America's social and economic future depends on new generations of scientists who can help sustain our legacy of innovation and science leadership.
Andrea J. Ingram	Engineering is Elementary also shows promising preliminary results in narrowing the achievement gap in a national controlled study of thousands of students who participated in an BE unit and related science instruction, and who participated as the control group in only the related science instruction.
Girl Scouts of USA	While girls consistently match or surpass boys' achievements in science and math in scholastic aptitude tests, achievement tests, and classroom grades, high school girls are less likely than boys to take AP physics or computer science exams.
Ioannis Miaoulis	NASA can again become the main driver for STEM education as it was after Sputnik.

Table A.78: Statement Messages for 111hrg48732

Author	Message
Daniel de Vise	The larger presence of low-income students in the college-level testing program reflects two factors, school officials said: increased poverty in the community and the recruitment of disadvantaged students into advanced study.
Greg Jones	If standards are watered down, or individual states refuse to join the common state standards effort, we will not succeed in creating the globally competitive workforce of tomorrow.
George Miller	As NAEP shows us year after year, the unintended consequences of a system that varies vastly from state to state is rather than striving for excellence, states are camouflaging poor performance.
James B. Hunt	We need a set of common state standards that are rigorous and relevant, and we must stop fooling around.
Jerry D. West	The only way we can show them the pathway is if we create it. We can do that by setting some common, rigorous academic standards that everyone can aim for and that will, if followed with fidelity, lead to a better prepared workforce to keep our nation strong and competitive.
Randi Weingarten	The AFT supports the development of rigorous common state standards. Our reasons are straightforward. We live in a highly mobile, instantly connected world in which knowledge travels on highways we can't even see.

Table A.79: Statement Messages for 111hrg49499

Author	Message
Chaka Fattah	This is our opportunity to invest in equitably and adequately distributed resources and a college-going culture. Our students are eager to do their part; the question is whether we, as policy makers and adults, are ready to rise to meet this challenge.
George Miller	It's become increasingly clear that addressing this dropout crisis is one of the most important things we can do to turn our economy around for good.
Marguerite Kondracke	Students deserve standards and curricula that will help them succeed in college and careers and compete in the global economy.
Michael N. Castle	America's elementary and middle school students are making great strides in closing the achievement gap in reading and math. We are not, however, seeing similar results at the high school level.
Michael Wotorson	CHSE urges swift passage of an improved ESEA that strengthens accountability as a core element of reform and includes critical support for high schools.
Robert Balfanz	Simply put, the world has changed and there is no work for high school dropouts.
Raul M. Grijalva	We must be aware of the changing composition of our student body and address the changing needs of our students.
Robert Wise	Addressing the crisis in high schools is a civil rights and economic imperative.
Scott Gordon	By setting the bar high and by demanding accountability, you will force education to change. You can accelerate that change by rewarding what works and penalizing what doesn't.
Thomas Petri	High school reform is seeing increased attention in Congress and among researchers and education experts.
Vicki Phillips	We need to face the fact that too many students in high school are frozen; they are not making nearly the academic progress they need to make to be ready for the demands of college, work and life.

Table A.80: Statement Messages for 111hrg52859

Author	Message
Eddie Bernice Johnson	middle school is time in which we begin to see an achievement gap between White and African American students, in terms of math test score performance.
Ioannis Miaoulis	With an economy in flux and a workforce at risk, educating the Nation's future engineers and scientists and advancing technological literacy are more important than ever.
Linda P. B. Katehi	The teaching of STEM subjects must move away from its current silo-ed structure, which may limit student interest and performance, toward a more integrated whole.
House Subcommittee Research & Science Education	A consensus now exists that improving STEM education throughout the nation is a necessary condition for preserving the United States' capacity for innovation and for ensuring the nation's economic strength and competitiveness.
Thomas W. Peterson	important responsibility is to provide the intellectual rationale and framework for developing educational tools that will give all our citizens the basic engineering and technological skills to live in this complex society.

Table A.81: Statement Messages for 111hhr53373

Author	Message
Andres Henriquez	Overall, we are failing to create highly literate, college-ready adults with the literacy skill sets that qualify them for employment in the new global knowledge economy.
Dale E. Kildee	we work to reevaluate the federal role in literacy development.
Leo Gomez	Historically, an academic achievement gap has persisted between native English speakers and BL students resulting in a persistent dropout rate in many cases greater than fifty percent (50%) for this population.
Leo Gomez	The evidence is overwhelming against English-only (immersion) programs for bilingual learners.
Mary Kay Dore	Leadership at the school building level that supports cultural changes and a strong instructional focus are the essential components to guide this difficult process of continuous improvement.
Sandra D. Meyers	The window of opportunity to work successfully with these high-risk children obviously does not remain open very long.
George Miller	One of the problems we have encountered with No Child Left Behind is that the law required every state to set its own academic standards and use assessments aligned with those standards.
Gene Wilhoit	we released a report with Achieve Inc. on international benchmarking and made our first priority the creation of better, higher core standards that are common across states like those high performing countries.
NGA & CCCSO	The goal is to have a common core of state standards that states can voluntarily adopt.

Table A.82: Statement Messages for 111hhr55304

Author	Message
Dale E. Kildee	The federal government has a responsibility before all others to ensure equal opportunity. This must be a top priority for future steps in education reform. Just as our country grows increasingly diverse, we must ensure that our education system adapts to varying student needs.
David M. Gipp	In closing, I would like to remind the Committee that whatever form the reauthorization of ESEA takes, it is important that tribal students, whether they attend a Bureau of Indian Education funded school, a state public school, or a tribally run school, are served by all of the ESEA programs, and must be specifically considered.
Jacqui Farmer Kearns	the importance of including ALL students with disabilities fully and equitably in assessment and accountability systems.
Michael N. Castle	reform ESEA to ensure that it accounts for the complexities that states, school districts and schools must address in educating diverse learners, especially how we ensure that they are properly assessed so that teachers and school administrators can develop appropriate strategies.
Michael Wotorson	CHSE looks forward to continuing to work with this Committee and the full Congress to ensure the timely renewal of this critical civil rights legislation.

Table A.83: Statement Messages for 111hhr58324

Author	Message
Martha Kanter	President Obama . . . goal is that by 2020 we will have the best educated, most competitive workforce in the world.

Table A.84: Statement Messages for 111shrg52739

Author	Message
Patricia Hamamoto	Transforming public schools and universities into 21st century institutions of learning that graduate college- and career-ready young men and women is no longer a goal; it is a mandate.

Table A.85: Statement Messages for 111shrg52939

Author	Message
American Association of University Women	AAUW believes a strong, free public education system is the foundation of a democratic society, and has long opposed diverting public funds to private or religious elementary and secondary schools.
Gregory M. Cork	it is an honor and a privilege to address the subcommittee regarding WSF's work in service to D.C. OSP students and families, who have benefited tremendously from the educational opportunities afforded them by this groundbreaking program.
Joe Lieberman	Though the District [DC] has amongst the highest per pupil expenditure in the Nation, students attending its public schools score at the bottom on national proficiency tests.
Michelle Rhee	Our ambition is backed by more than a belief in justice in education for all children, regardless of race, socioeconomic circumstance or individual learning needs. It is backed by the researched best practices that have narrowed racial achievement gaps in other cities and have begun to do so for the first time in our Nation's capital.
National Coalition for Public Education	The D.C. voucher program, however, undermines public schools and generally does not significantly improve the academic resources, environment, or academic achievement for students – whether participating or not participating in the program.
Patrick J. Wolf	School voucher initiatives such as the District of Columbia Opportunity Scholarship Program will remain politically controversial in spite of rigorous evaluations such as this one, showing that parents and students benefited in some ways from the program.
Richard J. Durbin	I am not opposed to the concept, but I want to make sure that children receiving vouchers are enrolled in schools that are safe, taught by teachers who are qualified, and receive a better education than is available in public schools.
Susan Collins	We do need accountability, transparency, and oversight. That is the only way we're going to be able to determine what the impact of the Federal investment that we've made is producing.

Table A.86: Statement Messages for 111shrg55474

Author	Message
Andreas Schleicher	in the global economy, the yardstick for educational success is no longer merely improvement by national standards, but the best performing education systems internationally.
Charles Butt	Underlying it all is America's will to win – your leadership and stimulation of the national thought process about education's vital role can be transformative.
Dennis van Roekel	If we are to be true to the spirit of the original ESEA, Federal law and regulations are the only way to eliminate vast disparities in educational opportunity. As a condition of receiving Federal money, all States should be required to submit a plan for remedying disparities in the key areas that make a great public school.
Dennis van Roekel	At the core of this effort is ensuring the fiscal stability of the educational system so that the energy of stakeholders can be spent on how best to serve students.
Dennis van Roekel	immediate and dramatic change is needed to undo NCLB's harmful effects – to refocus our education system on developing a well-educated citizenry equipped to meet the challenges of the 21st century.
John Castellani	The recent deep recession and current painfully high rates of U.S. unemployment have cast longstanding U.S. weaknesses in education into sharp relief. Lagging U.S. education attainment has real-world consequences for individuals and for the economy as a whole.
Michael Enzi	Our economy depends on an educated and skilled workforce to be successful in the global market.
National Education Association	The original goal of the Elementary and Secondary Education Act was to provide educational opportunities to poor and disadvantaged students. That goal should endure in the future.
Scott Brown	The No Child Left Behind Act helped shine a light on the achievement gaps. Re-authorization gives us the opportunity to move beyond just identifying long-standing gaps in opportunity and achievement and move towards a smart, strategic system for closing the gaps and improving achievement across the board.
Thomas Harkin	Until recently, the education of all students was seen more as a civil rights or moral imperative than as an economic issue, and quite frankly, that still is an issue. It is a moral imperative, and I believe it is also a civil rights imperative, but it is also an economic issue.

Table A.87: Statement Messages for 111shrg67045

Author	Message
David Zaslav	Even as the promise of scientific innovation has exponentially increased, American students have lost interest in science, technology, engineering, and math.
Ioannis Miaoulis	The Federal Government can play a key role in this improvement of STEM education by identifying what works and providing incentives to scale those interventions at a national level.
John D. Rockefeller IV	A world-class STEM workforce is fundamental to addressing the challenges of the 21st century – from developing clean sources of energy that reduce our dependence on foreign oil to discovering cures for diseases.
S. James Gates, Jr.	They entered thinking themselves prepared to take on the challenge of college math only to find the gaps inherent in their K-12 education betrayed them.

Table A.88: Statement Messages for 112hhr64229

Author	Message
Andrew J. Coulson	To sum up, we have little to show for the \$2 trillion in federal education spending of the past half century. In the face of concerted and unflagging efforts by Congress and the states, public schooling has suffered a massive productivity collapse – it now costs three times as much to provide essentially the same education as we provided in 1970.
George Miller	The economic situation we are facing in this country also calls for us to take stock of what is going on in classrooms across the nation. The children sitting in these classrooms today are our workforce of tomorrow.
Lisa Graham Keegan	unfortunately, “local” lost out long ago in school districts, and “control” took over. School district control is dominated by the interests of national organizations whose power dwarfs that of their individual members or the communities they are meant to serve.

Table A.89: Statement Messages for 112hrg64657

Author	Message
Kati Haycock	Excessive controls on how federal dollars are spent at the state and local level are counterproductive.

Table A.90: Statement Messages for 112hrg64795

Author	Message
Arne Duncan	Today, all across America, people are meeting the challenge of improving education in many different ways – from creating high-quality early learning programs, to raising standards, improving teacher quality, and aggressively closing achievement gaps and increasing high school and college completion.
George Miller	And we need to reevaluate the federal role in education, as we discussed last week, we must maintain accountability, but provide states and districts more flexibility where appropriate.

APPENDIX B

THE QDA CODES

In this appendix I present more details than I was able give in the Methodology section. Here is the table referred to in Section 3.3.

A description of these codes is given in Table B.1 on page 502. The application of codes to paragraphs is accomplished in two steps each actuated by an *R* script. The first one loads the names and descriptions of the codes from Tables 3.5 (page 87) and B.1 (page 502) into the “freecode” database table of the *RQDA* project. These codes are in common among all collections. The codes were obtained *inductively* from a pilot study of the documents in conjunction with a *deductive* process based on the theory of governmentality.

The second step is the application of these codes to the paragraphs in the files of the document collections based the content of the text unit, the paragraph. This is two-step process accomplished by an *R* script that populates the “coding” database table in the *RQDA* project with “tentative” codes based on “text patterns,” followed up by a careful reading of the texts that ‘fine-tunes’ the code application process.

These two tasks correspond to the box “apply codes to paragraphs” of the work flow diagram (Figure 3.2, page 64).

Table B.1: QDA Code Description

Id	Description
1	Control at federal level of education
2	Control at school and school district level of education
3	Control at state level of education
4	Academic achievement, success in school, quality of education
5	Equity in education, or the lack of it
6	Gap in educational achievement or related metrics, e.g. graduation or

Table B.1: Continued

Id	Description
	college enrolment
7	Funding of education, federal, state or local sources, for schools, students, tutors, etc
8	Instruction in math and/or science
9	Research-based school interventions
10	Standards and standardization in education, local, state or federal
11	Being, remaining, or becoming again the best in the world
12	National duty, responsibility, mandate, related to education
13	National economy, related to education
14	National interest, goal, objective or priority, national success, related to education
15	International or global competition, related to education
16	Prosperity of the nation, society and its components, especially students
17	Technological society and required skills to participate therewith
18	Parent involvement in the education of their children
19	Accountability of schools
20	Interventions and inputs from business in education
21	Conversion into charter school or ex novo
22	The ability of changing schools by the parents
23	Diversity of the school with respect to students and/or teachers
24	Drastic school interventions up to closure
25	Quality of schools, perceived or measured
26	School reform, at local, state or federal level, not at school level
27	All students, all children, etc.
28	The testing of students or other means of assessment
29	The career of students after completing K-12 school, work-force, employment, employability
30	Admission to college and ability to graduate from college, related to K-12 education
31	Social and individual expectations about the worth of education, motivation, responsibility
32	Graduation from K-12 or lack of it, dropping out
33	Unsatisfactory financial situation of the students, their families, their schools
34	Teacher appreciation, by value in society, financial means, or autonomy
35	Teacher assessment or evaluation
36	Teacher certification

Table B.1: Continued

Id	Description
37	Professional development of teachers
38	The perceived worth of a teacher and thus his or her classification in society
39	The replacement or firing of “bad” teachers with “good” ones, replacing principals

The ideal situation is non-overlapping (orthogonal) word patterns. That is, each word pattern should correspond to only one code. However, sometimes this is impossible. For instance the pattern “fire bad teacher” is common to both codes *TeacherQuality* and *TeacherReplace*, “A Nation at Risk” is a pattern for both codes *NationInterest* and *EducGap*, “AYP” and “adequate yearly progress” are a pattern for both codes *SchoolQuality* and *StudentAssess*, “parental choice” is a pattern for both codes *ParentInvolve* and *SchoolChoice*, “highly qualified teacher requirement” is a pattern for both codes *EducEquity* and *TeacherQuality*.

To help me in the coding process I wrote several *R* scripts. One of these scripts would load the codes and the themes and their definitions into the project database based on the above tables. In addition I wrote *R* scripts that would apply a tentative code to a line of text based on the presence in the line of one or more key words. For details see the next sections in this appendix.

In each of the document collection sections is an *R* script. Initially, the script populated the “freecode” table in the appropriate *RQDA* project database. The codes were read from a tab separated value file, `codes.tsv`. Then the *R* script loaded the code categories (also called themes) into the “codecat” database table. After that it assigned codes to the categories by populating the “treecode” database table. Finally, the script assigned tentative codes to paragraphs in the documents based on a set of key words. These key words were scripted and followed a pattern

expressed using *regular expression* syntax.⁹⁰

Many paragraphs were auto-coded. However, by reading through the document I only kept the codes on paragraphs coded with *EducGap* and related paragraphs. Sometimes I added *EducGap* when it is not auto-coded, but the meaning of the text demands it. If the label *EducGap* is added because of a simple mention of the term “disaggregated” then the code is not kept. Differential drop-out is manually coded for *EducGap*, as are comparisons of graduation rates with other countries.

The automatic coding by necessity generated many ‘false positives.’ For example, just the term ‘achievement’ also labeled many paragraphs that have nothing to do with school or academic achievement. I removed all codes applied to post-secondary education and early childhood education that have no reference to K-12 education. In addition I removed codings in section titles and references.

This process corresponds to the brown box labeled “create codes & themes” and the red box labeled “apply codes to paragraphs” in the work flow diagram 3.2 on page 64. The results of the analysis of the codings are presented in Section 4.4.

APPENDIX C

QDA CODING PLOTS

C.1 Introduction

After applying the QDA codes to the relevant paragraphs, as described in Section 3.3 and Appendix J, I could obtain some descriptive statistics of the codings. These descriptive statistics are the (1) number of codings for each code, (2) average number of words, (3) files associated with each code, and (4) the relationship between the codes.

The relation between two codes is defined as number of paragraphs that are marked with both codes. The detection of code relations helped the development of the QDA narratives. Thus, to explore the relationships between the codes I assume that when the same paragraph is coded by more than one code, those codes are related. These relations are given by *RQDA* as a upper triangular weighted adjacency matrix (see http://en.wikipedia.org/wiki/Adjacency_matrix and <ftp://ftp.ccu.edu.tw/pub/languages/CRAN/web/packages/RQDA/RQDA.pdf>). It is **weighted** because some codes will be more highly correlated than others and numerically this corresponds to the count of paragraphs where both codes are applied.

There are 39 codes belonging to 4 code categories. The graphical representation of so many codes is confusing. Thus it is best to refer to tabulations for descriptive statistics on the codes.

The plots were created using the *ggplot2* package.⁹¹

This step corresponds to the red box “tables, plots, diagrams” in Figure 3.2 on page 64. Red boxes in this figure correspond to QDA analysis steps and blue boxes

to text mining. The corresponding *R* scripts are in shown here below.

I used *R* scripts that created several descriptive statistics of the QDA codes as described in Section 3.3. *RQDA* provides *R* functions that allow you to calculate and generate QDA inter-code relationships and QDA code summaries. I build on those functions to create frequency tables and time charts.

The graphs contain a “smoothing curve.” This curve was generated using the LOESS method of smoothing. See <http://research.stowers-institute.org/efg/R/Statistics/loess.htm>

C.2 Presidential Documents

Here below are shown the time plots that are not in the Discussion section.

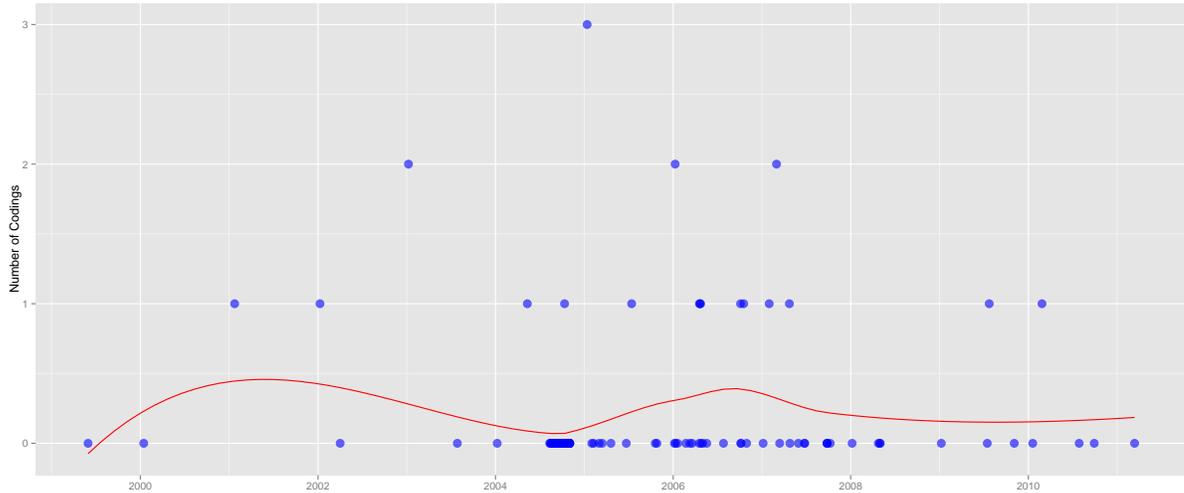


Figure C.1: Presidential Documents - Federal Control of Education

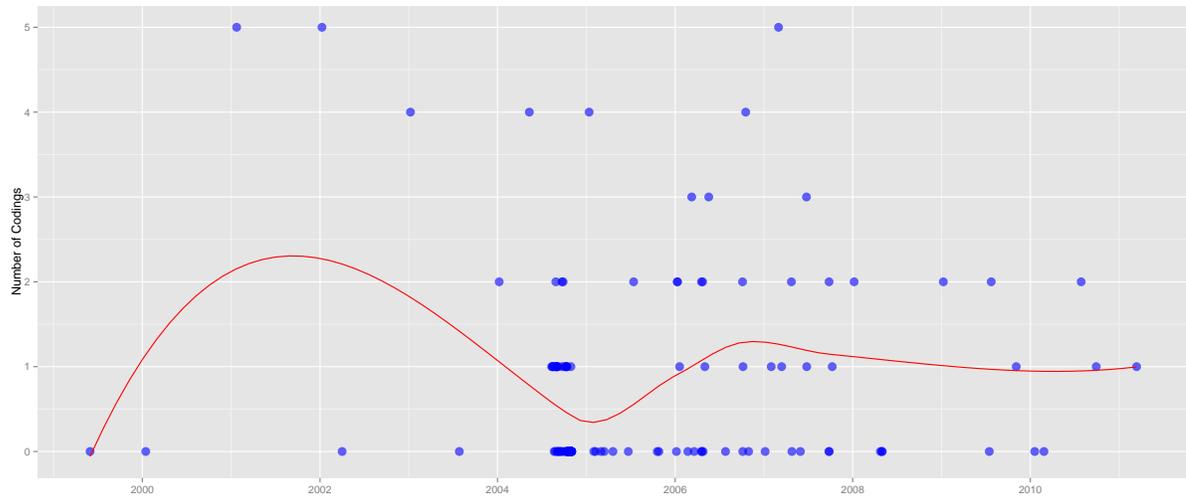


Figure C.2: Presidential Documents - Local Control of Education

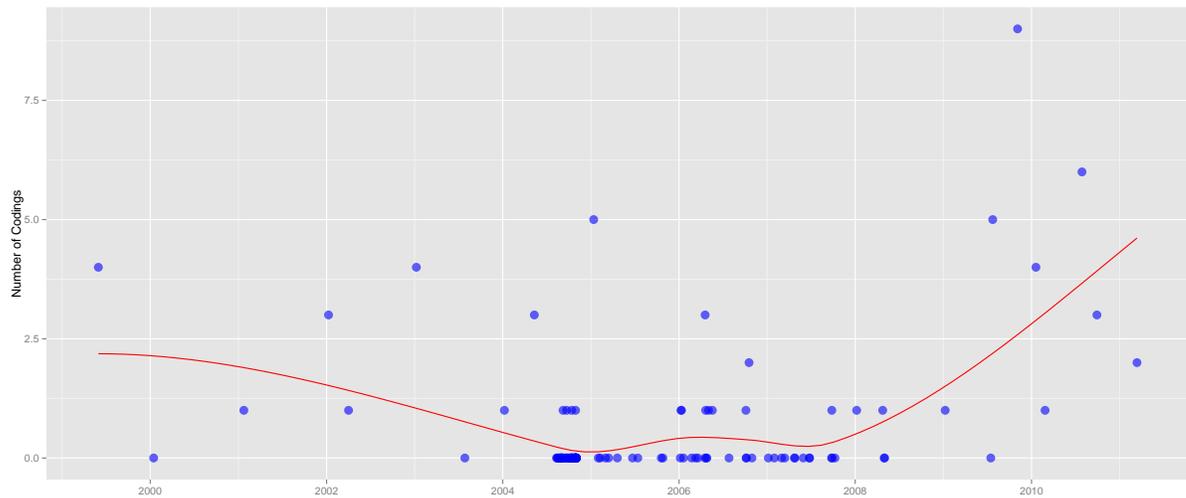


Figure C.3: Presidential Documents - State Control of Education

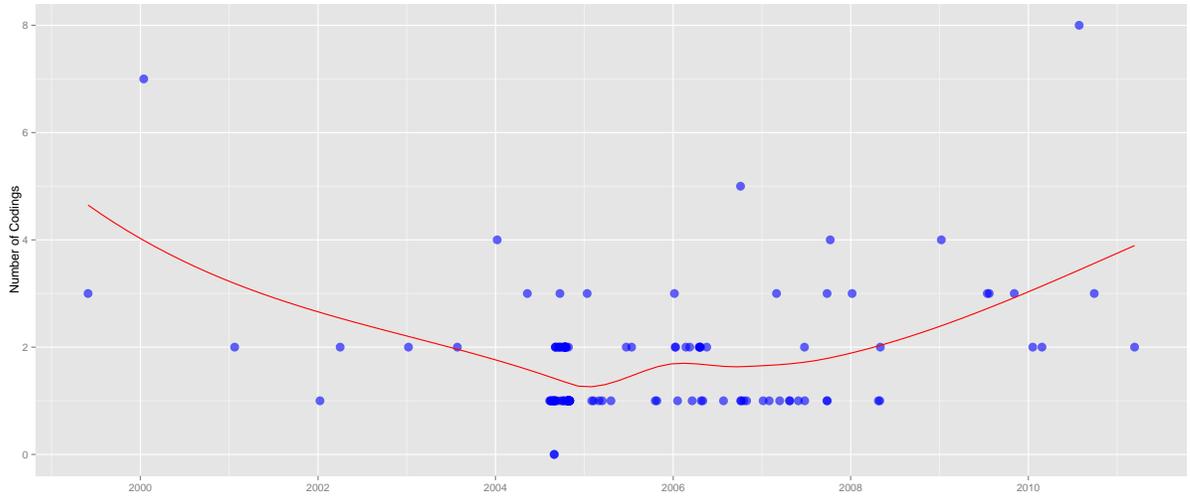


Figure C.6: Presidential Documents - Achievement Gaps

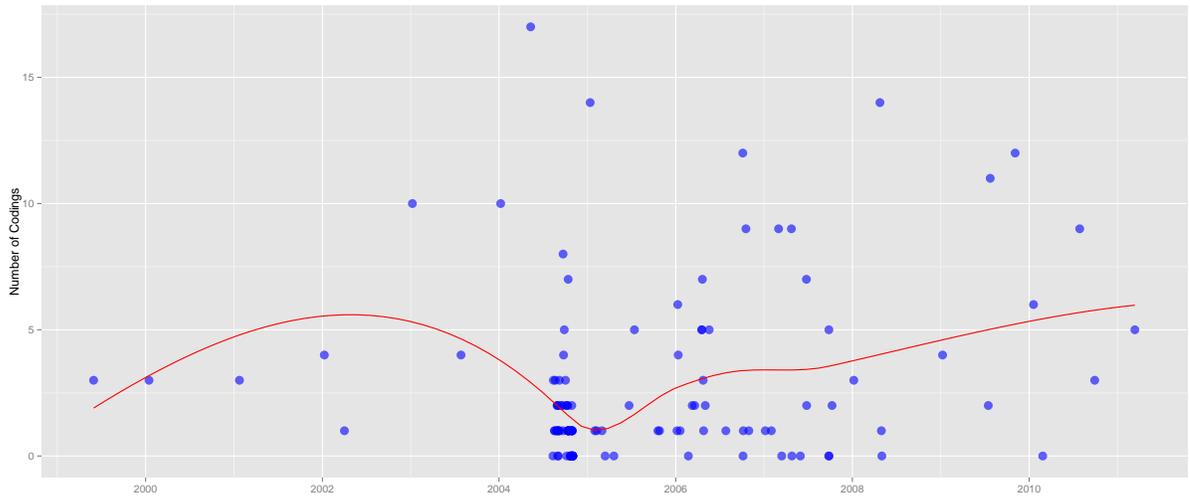


Figure C.7: Presidential Documents - Funding of Education

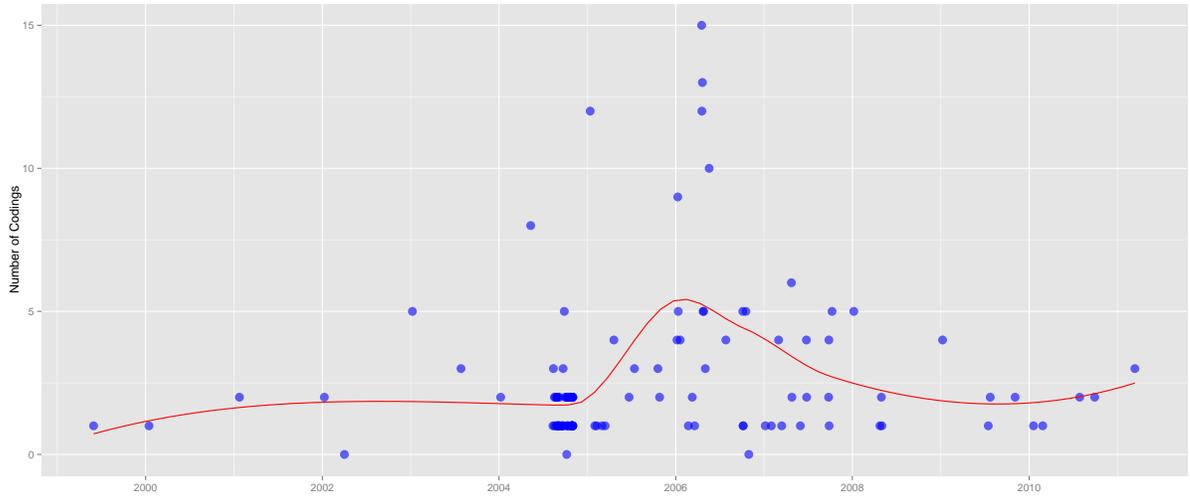


Figure C.8: Presidential Documents - Education of Math and Sciences

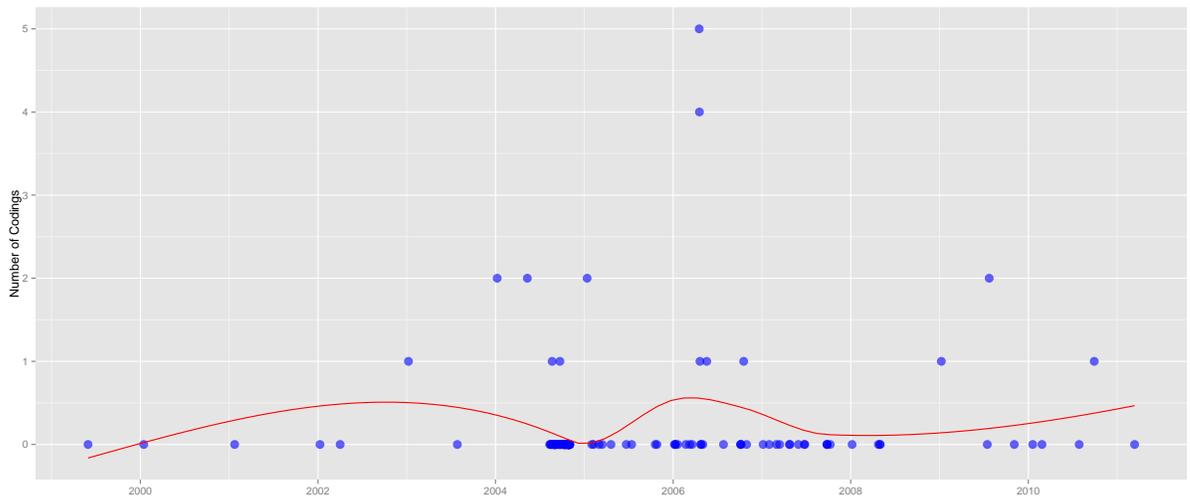


Figure C.9: Presidential Documents - Education Research

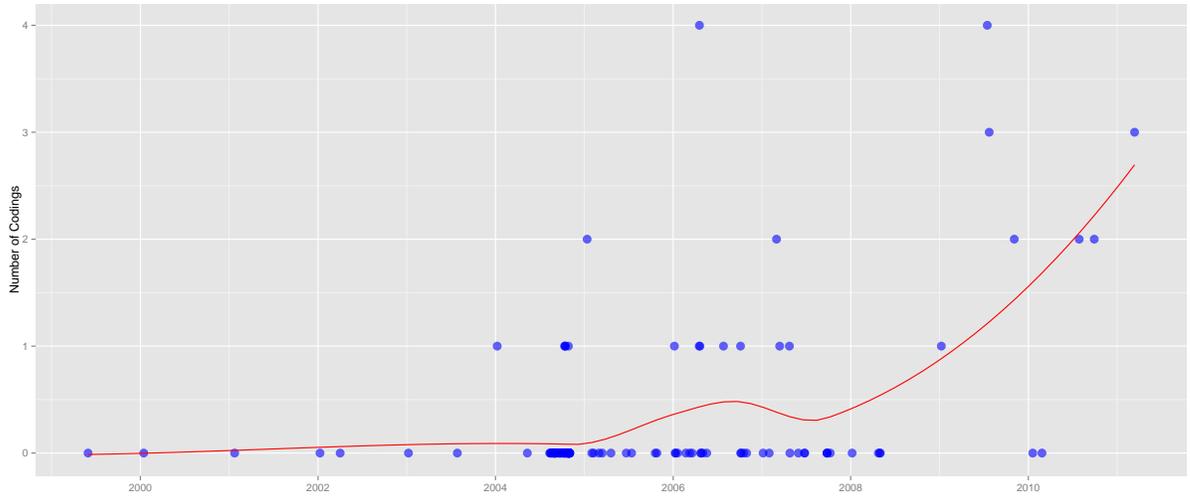


Figure C.10: Presidential Documents - Primacy of the U.S.

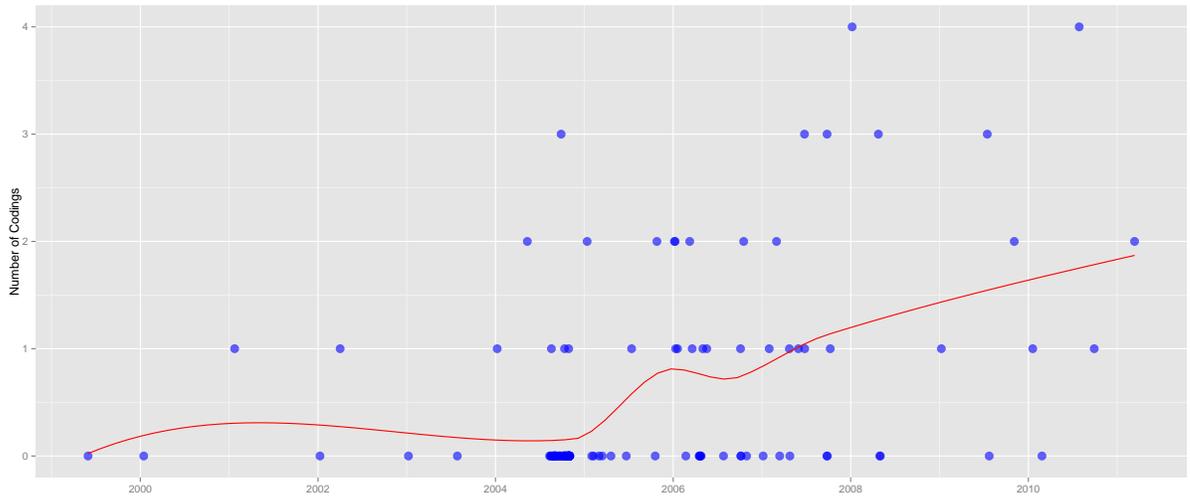


Figure C.11: Presidential Documents - National Duty

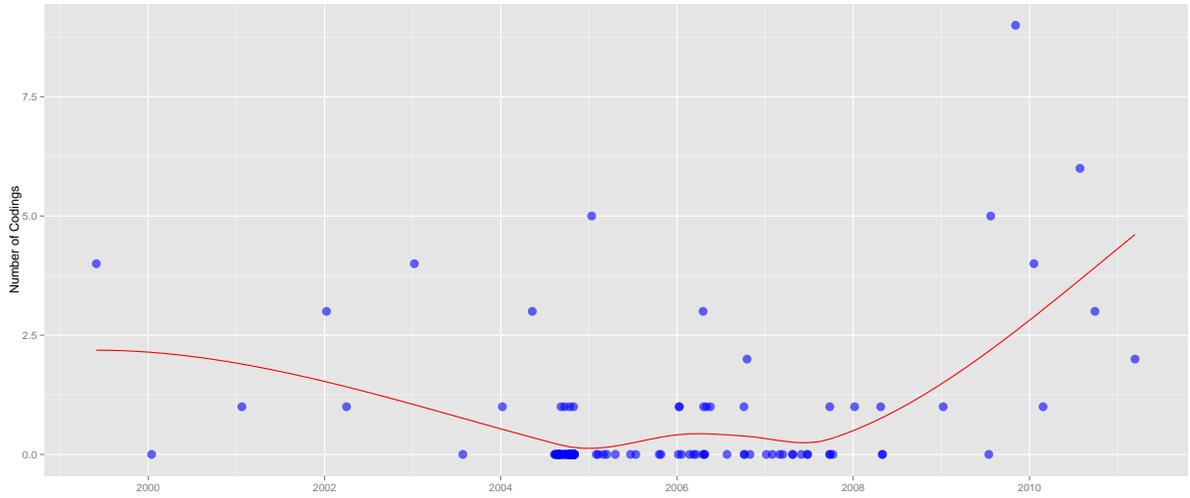


Figure C.12: Presidential Documents - Education and the Economy

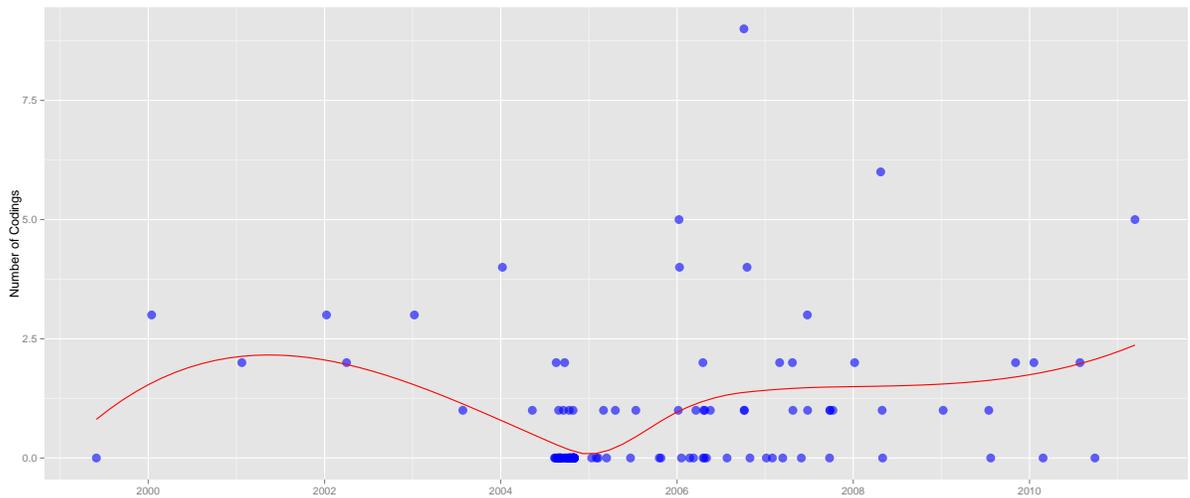


Figure C.13: Presidential Documents - National Interest

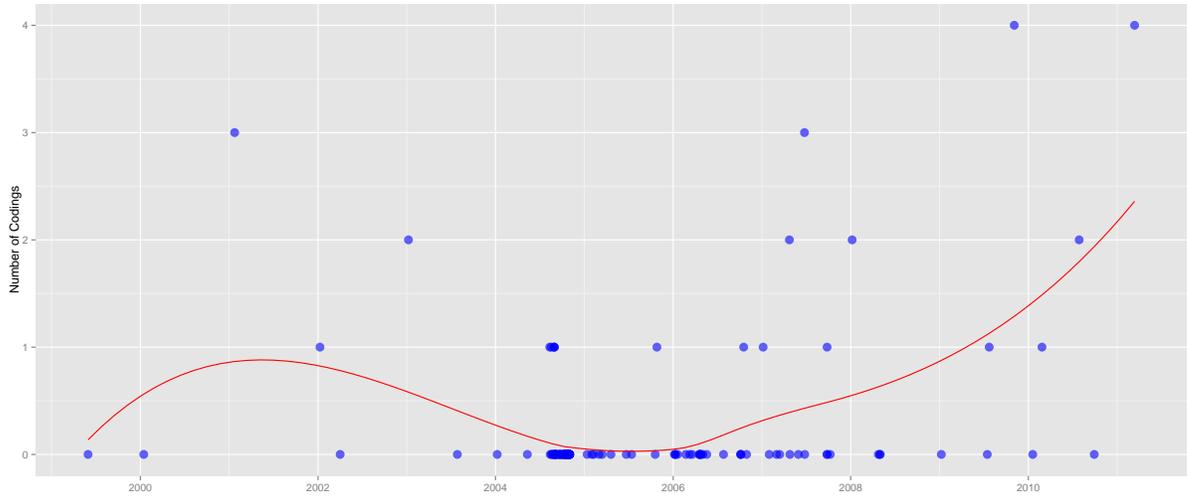


Figure C.21: Presidential Documents - Fixing and Closing Schools

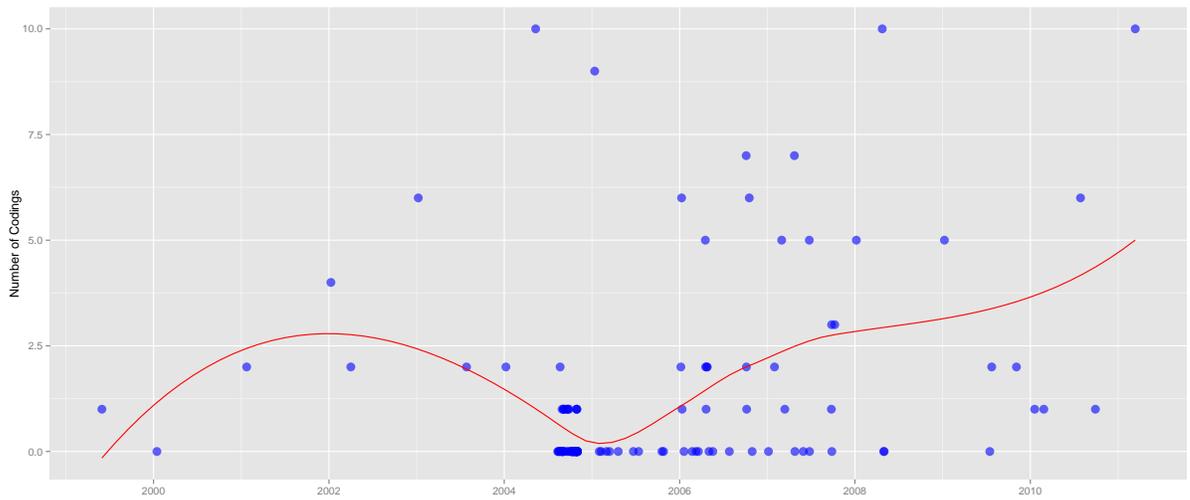


Figure C.22: Presidential Documents - School Quality

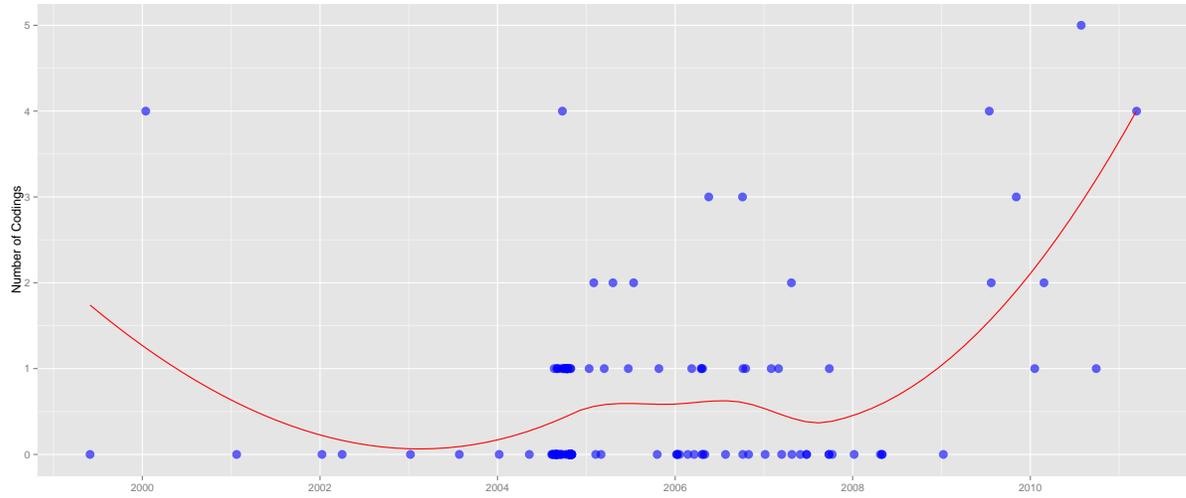


Figure C.27: Presidential Documents - College Admissions and Success

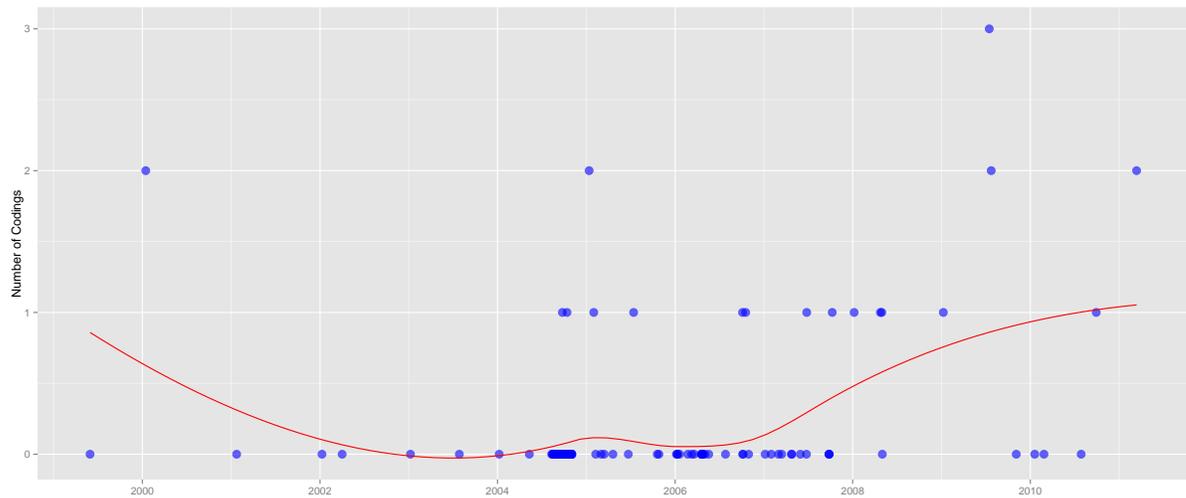


Figure C.28: Presidential Documents - High School Graduation

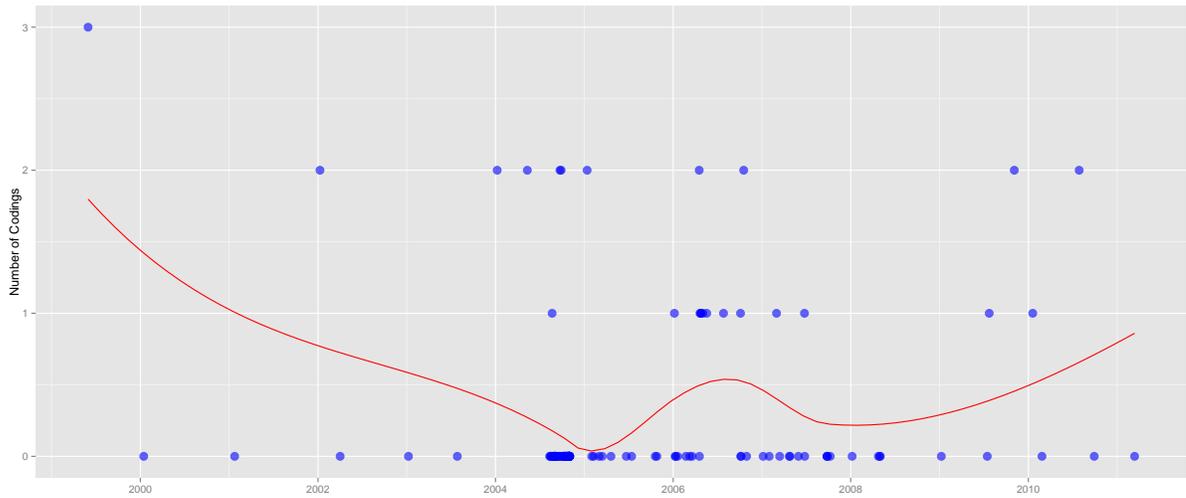


Figure C.32: Presidential Documents - Teacher Professional Development

C.3 Congressional Hearings

Here below are shown the time plots that are not in the Discussion section.

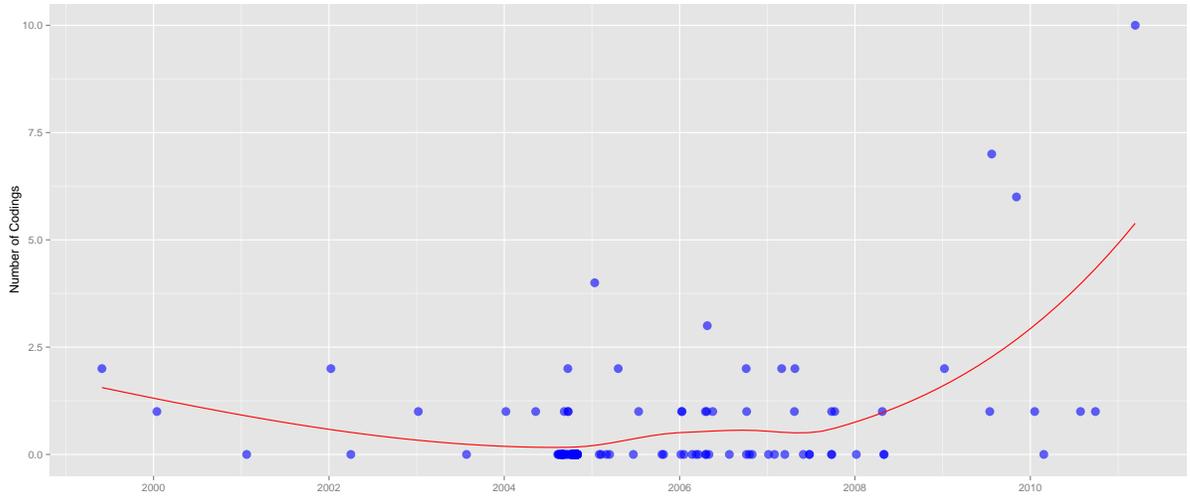


Figure C.33: Presidential Documents - Teacher Quality

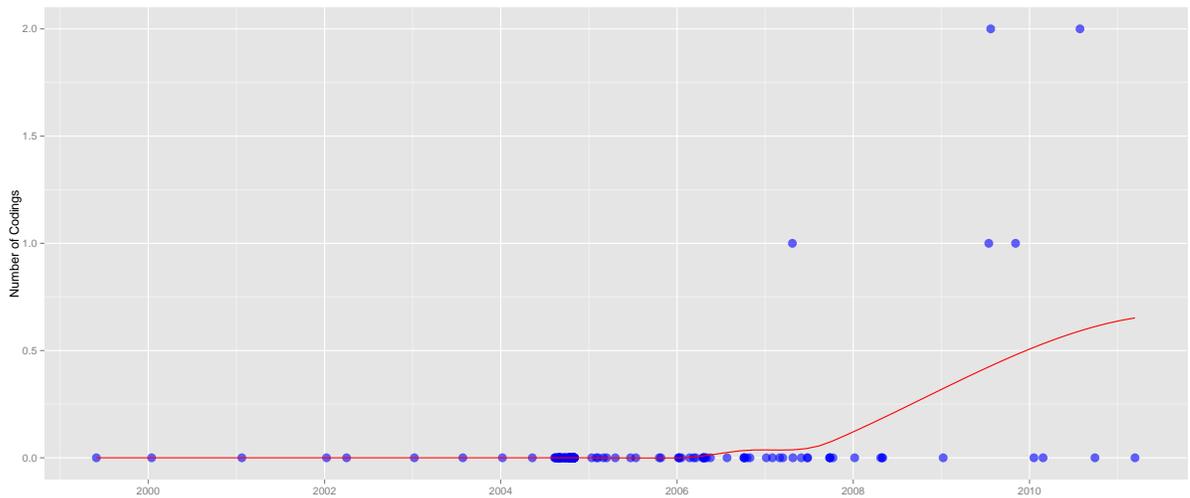


Figure C.34: Presidential Documents - Teacher Replacement or Dismissal

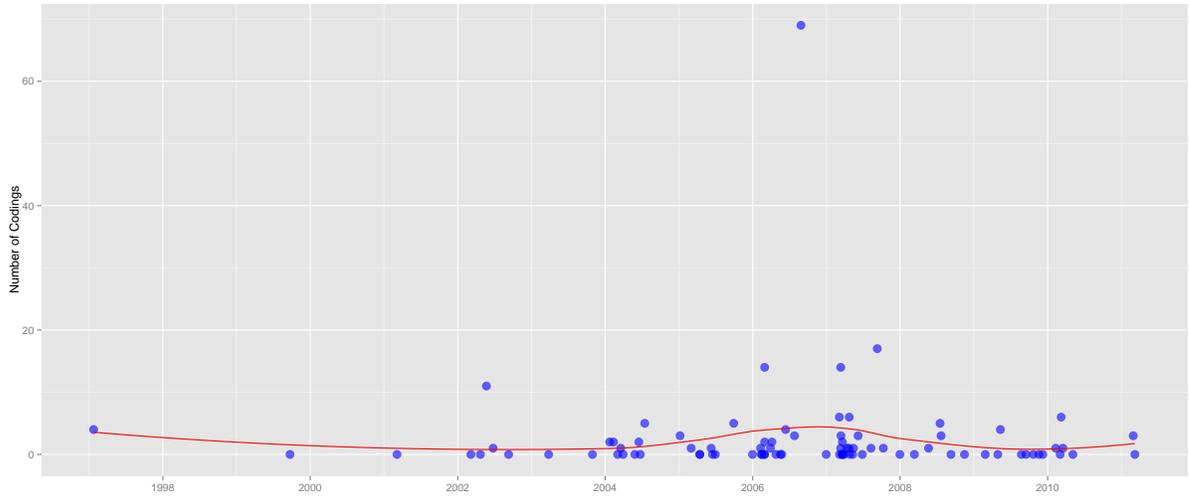


Figure C.35: Congressional Hearings - Federal Control of Education

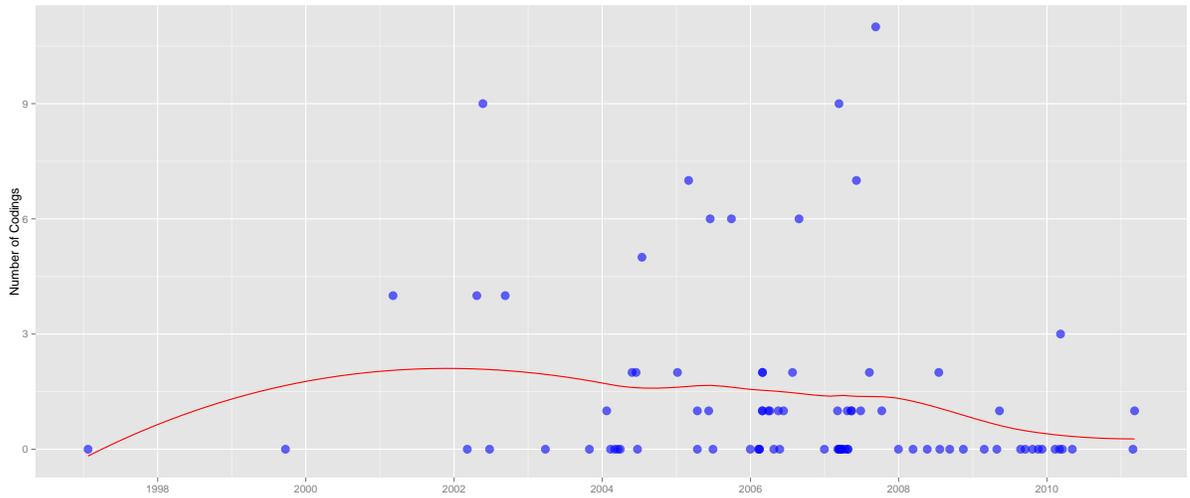


Figure C.36: Congressional Hearings - Local Control of Education

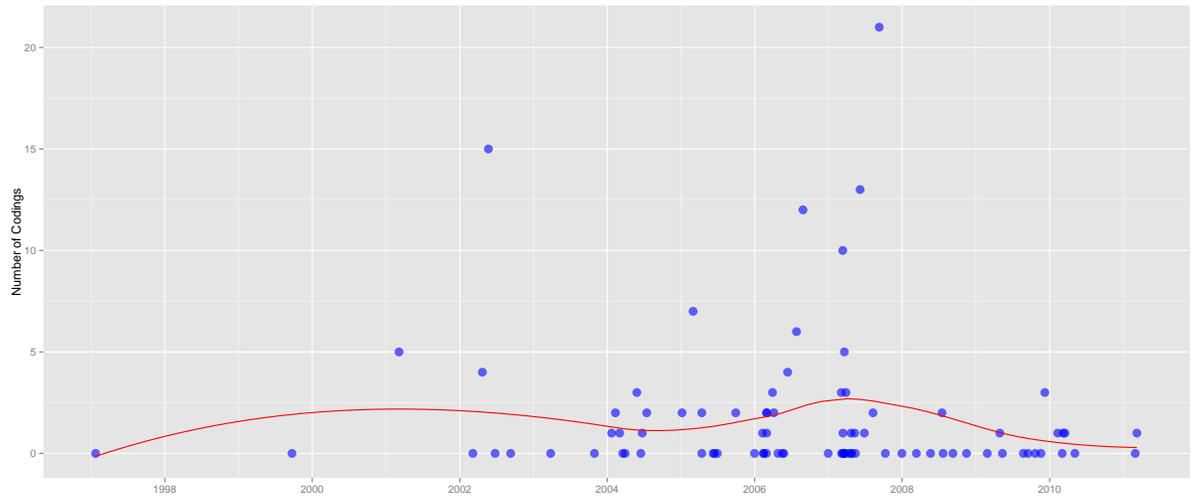


Figure C.37: Congressional Hearings - State Control of Education

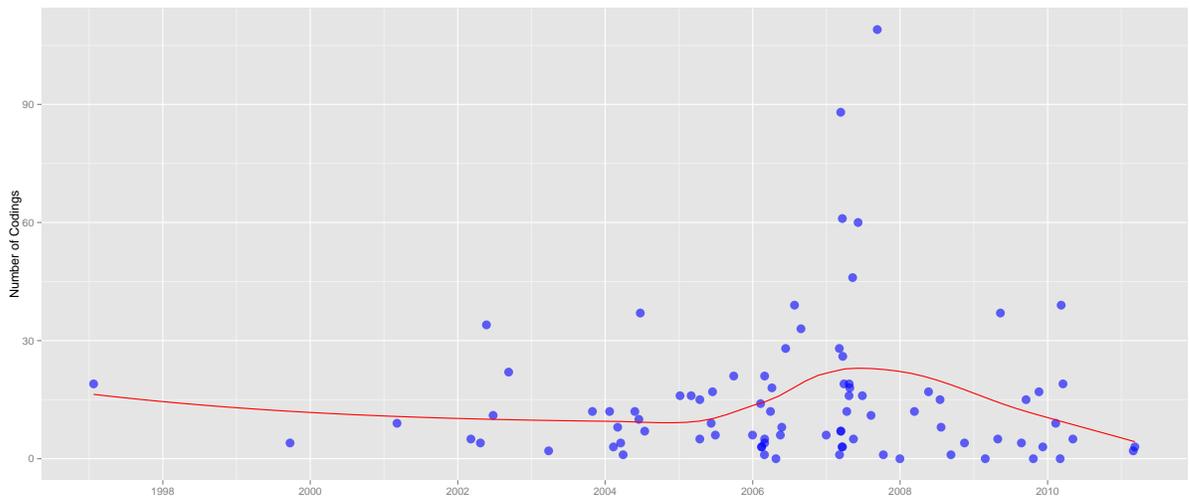


Figure C.38: Congressional Hearings - Education Achievement

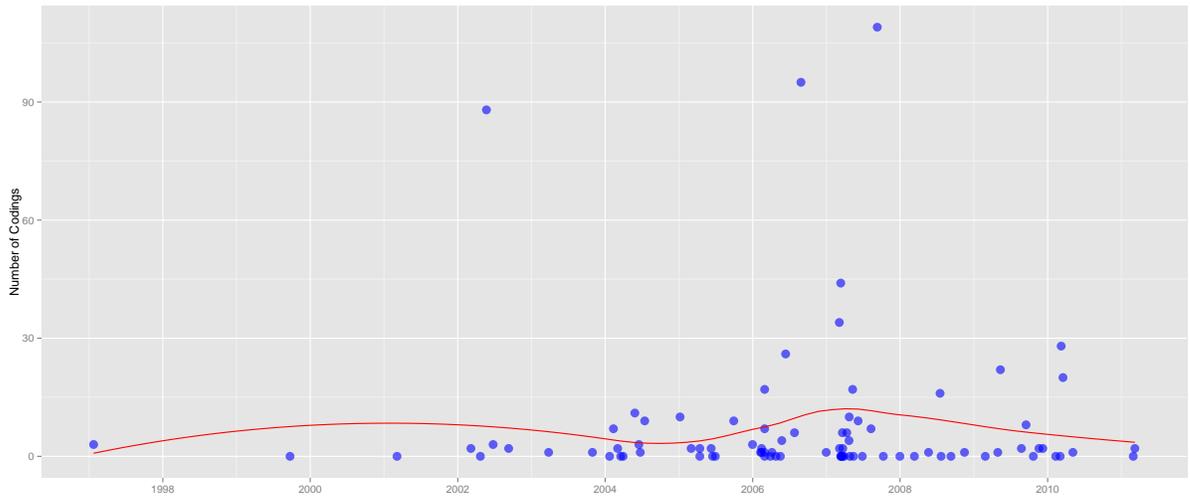


Figure C.39: Congressional Hearings - Education Equity

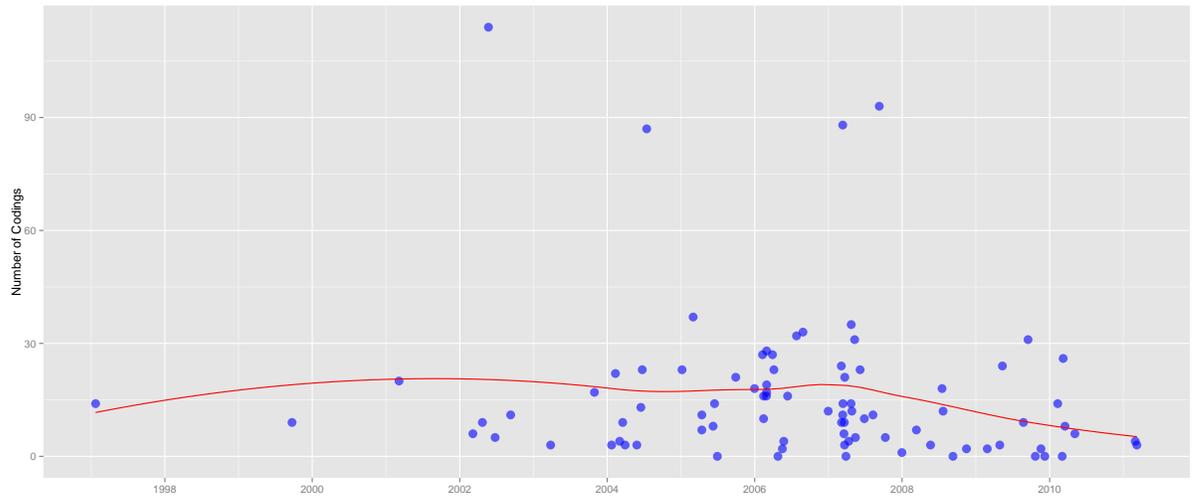


Figure C.40: Congressional Hearings - Funding of Education

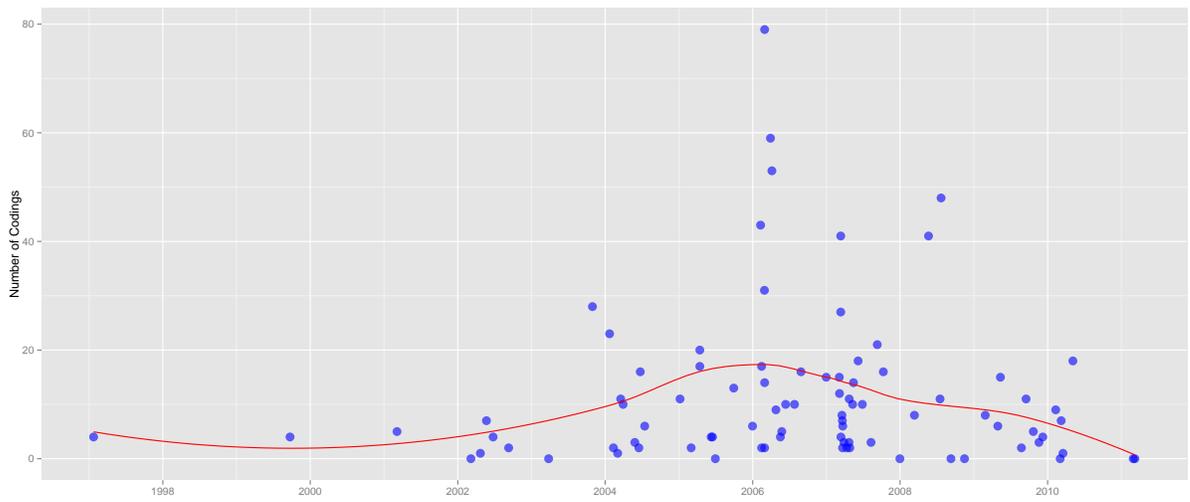


Figure C.41: Congressional Hearings - Education of Math and Sciences

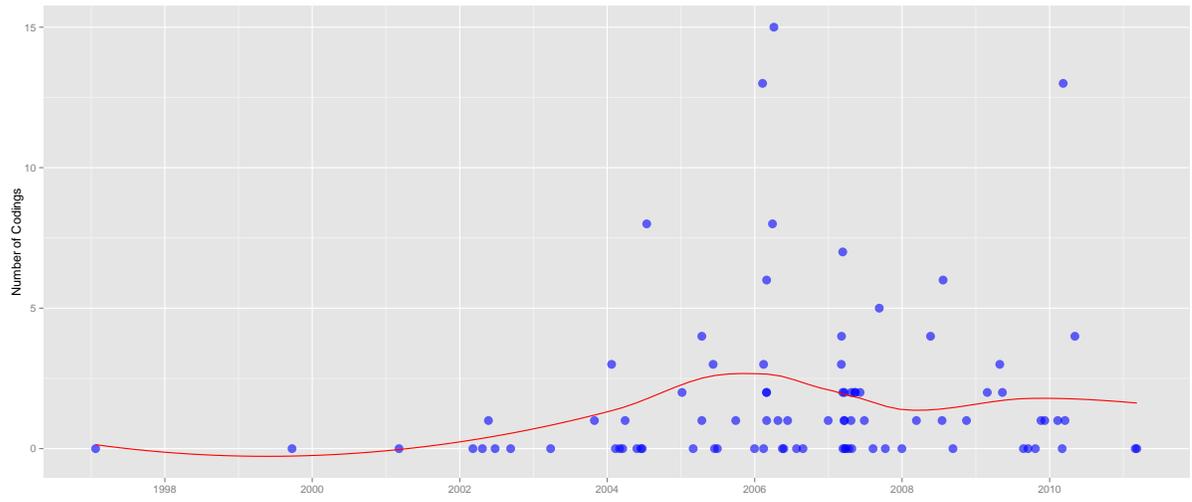


Figure C.43: Congressional Hearings - Primacy of the U.S.

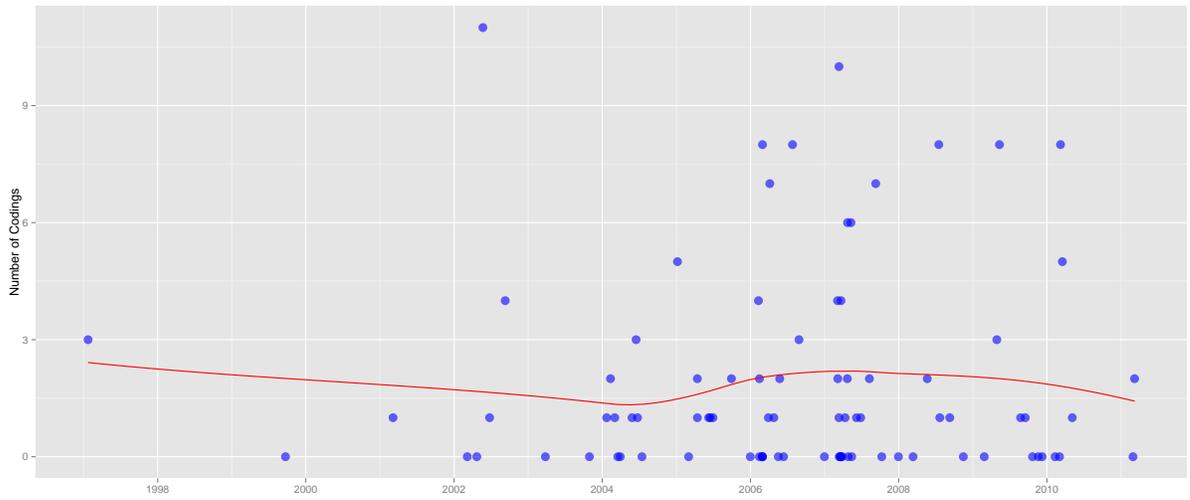


Figure C.44: Congressional Hearings - National Duty

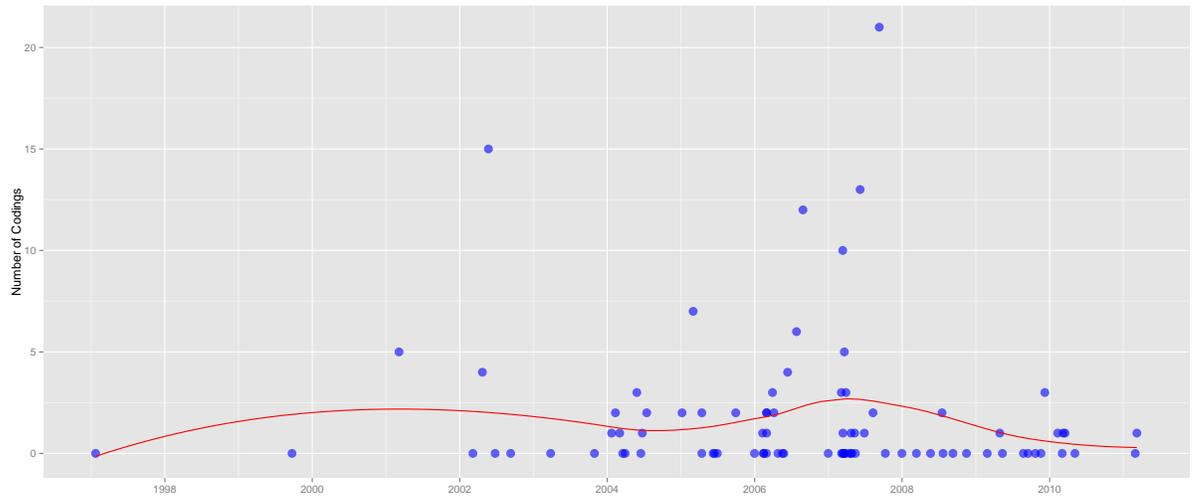


Figure C.45: Congressional Hearings - Education and the Economy

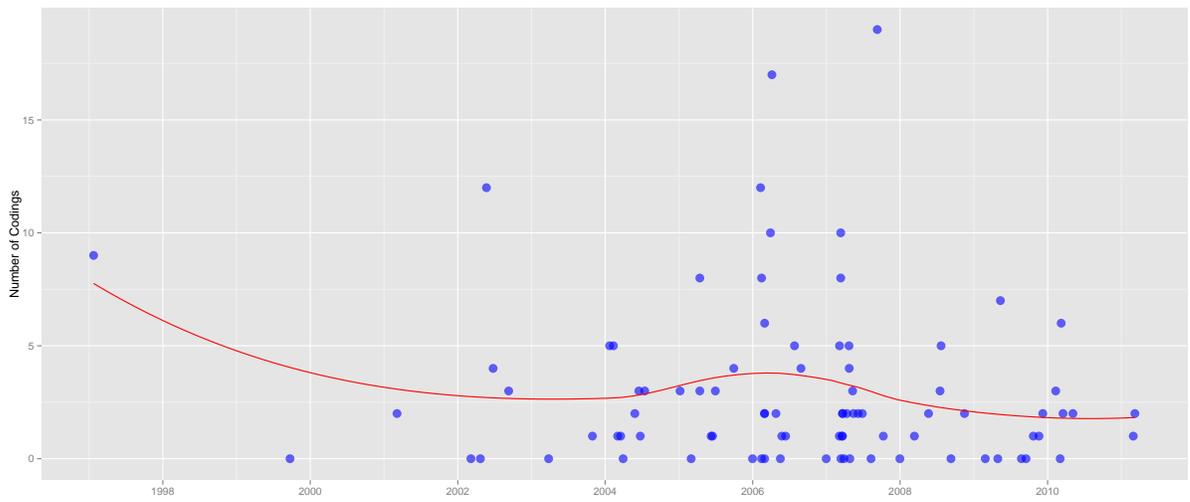


Figure C.46: Congressional Hearings - National Interest

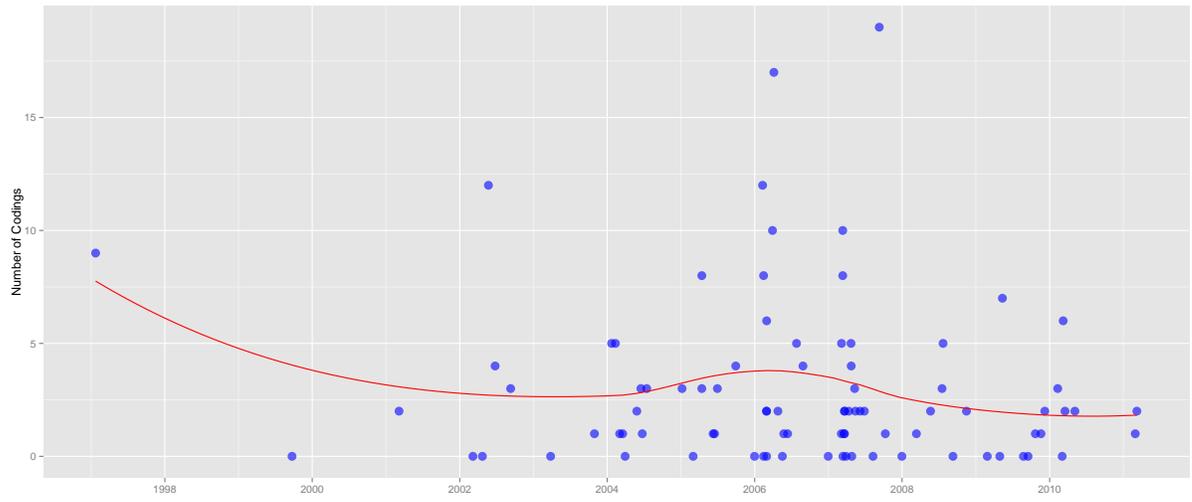


Figure C.47: Congressional Hearings - International Competition

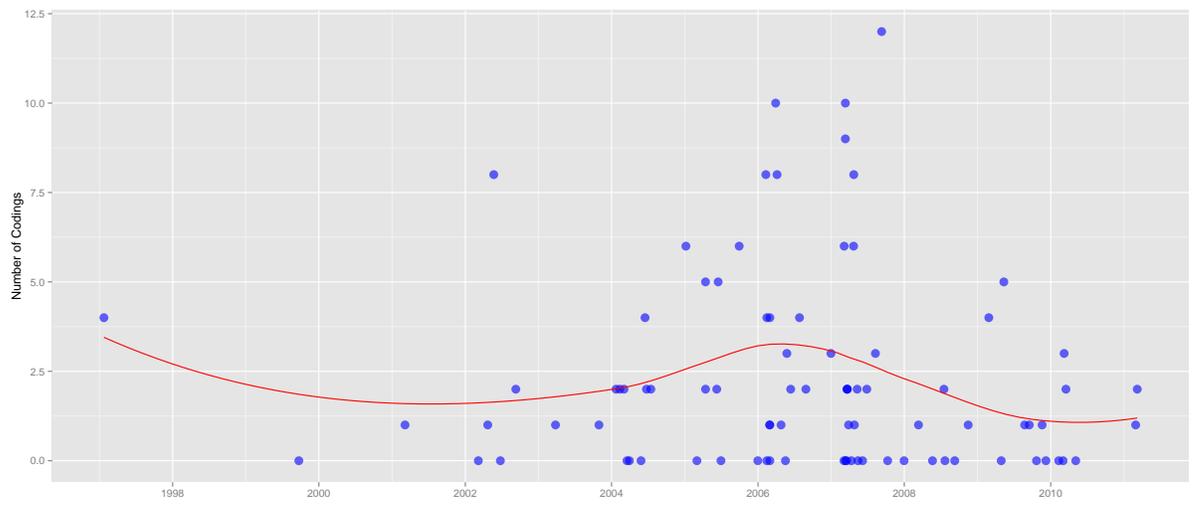


Figure C.48: Congressional Hearings - National Prosperity

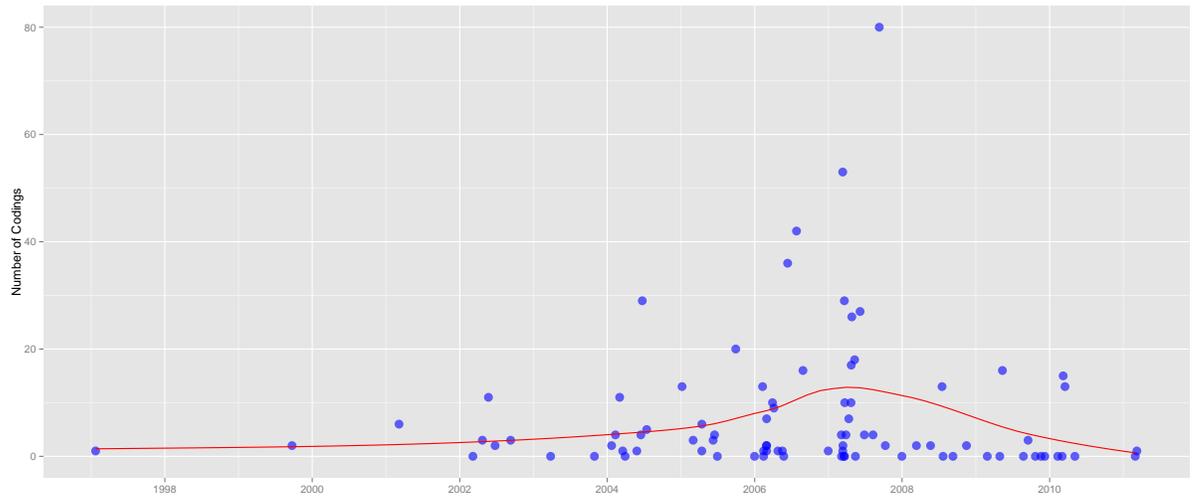


Figure C.51: Congressional Hearings - School Accountability

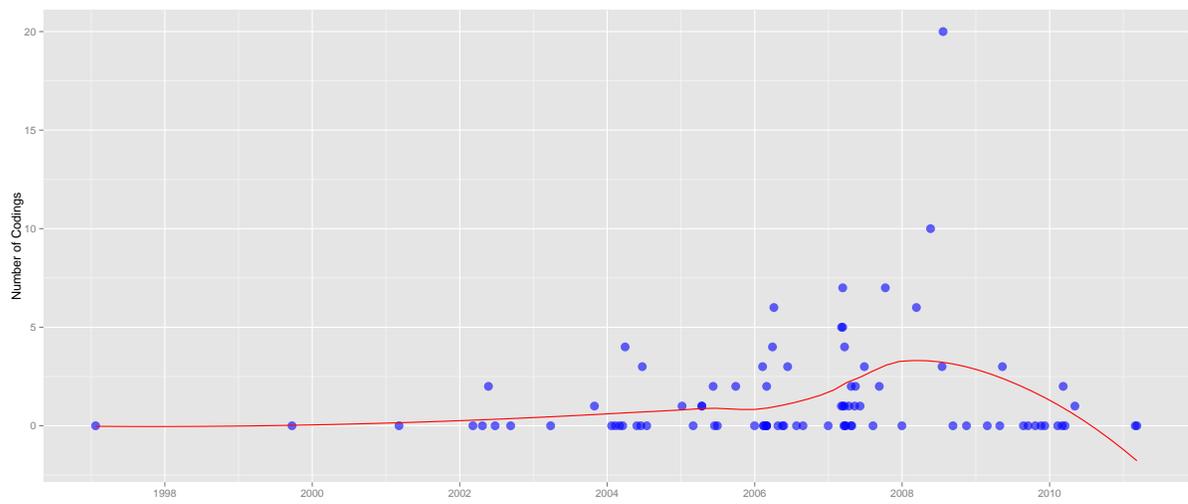


Figure C.52: Congressional Hearings - Business Involvement in Schools

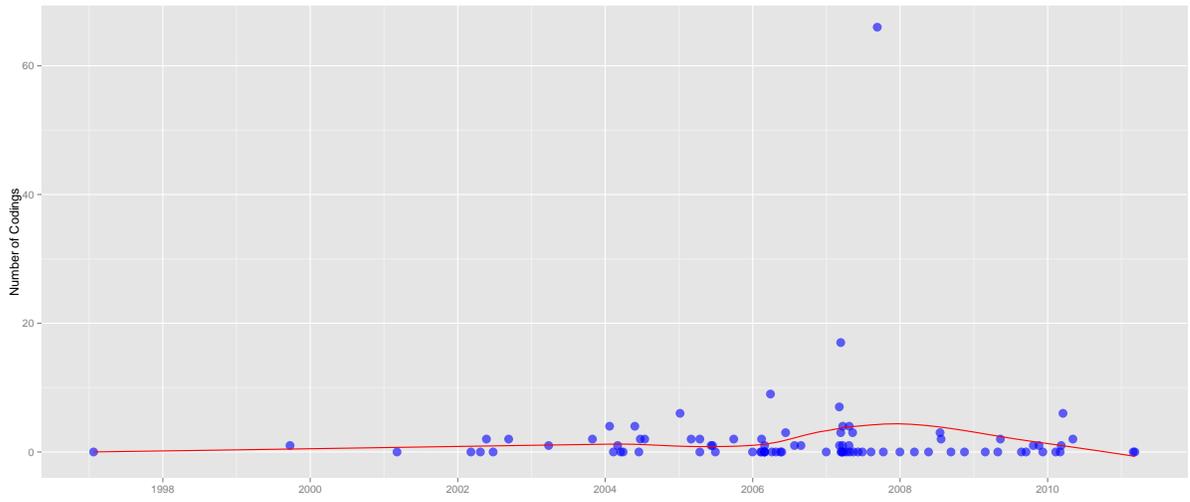


Figure C.54: Congressional Hearings - School Diversity

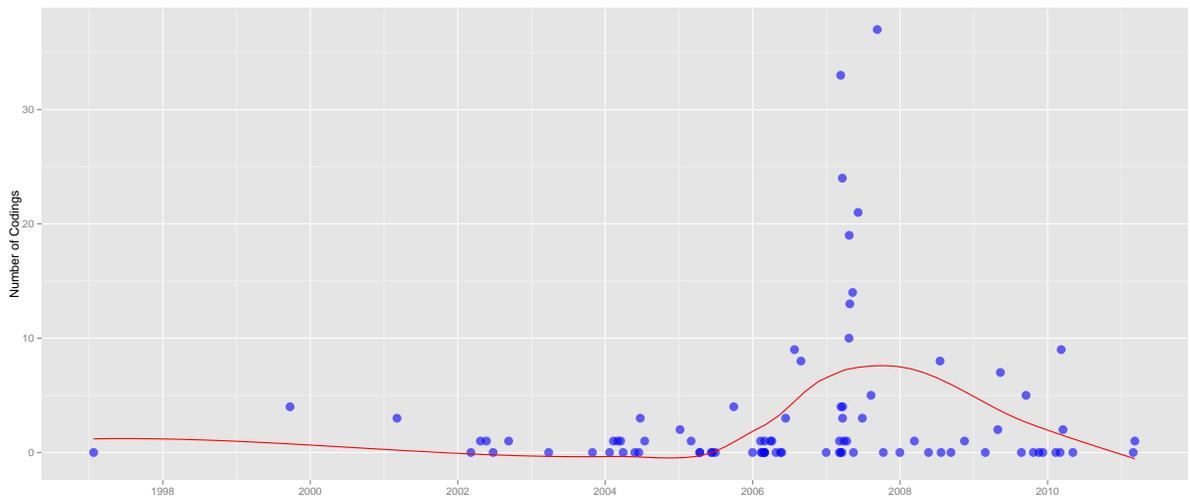


Figure C.55: Congressional Hearings - Fixing and Closing Schools

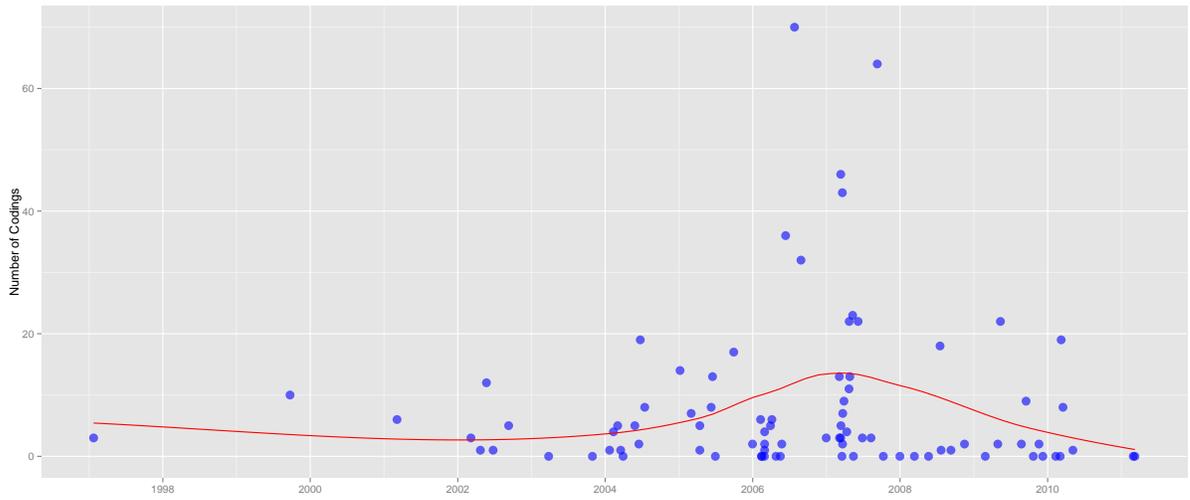


Figure C.56: Congressional Hearings - School Quality

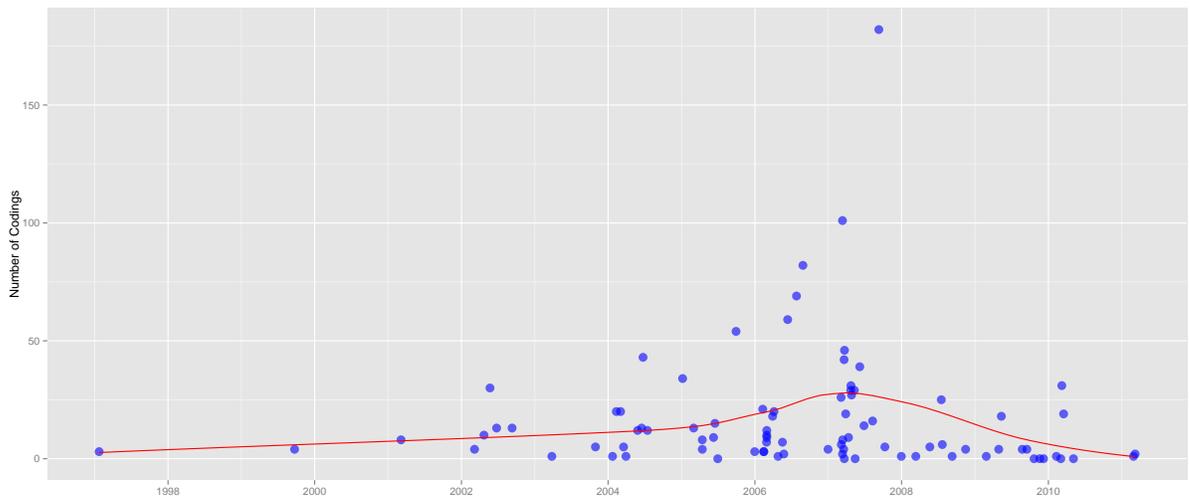


Figure C.57: Congressional Hearings - School Reform

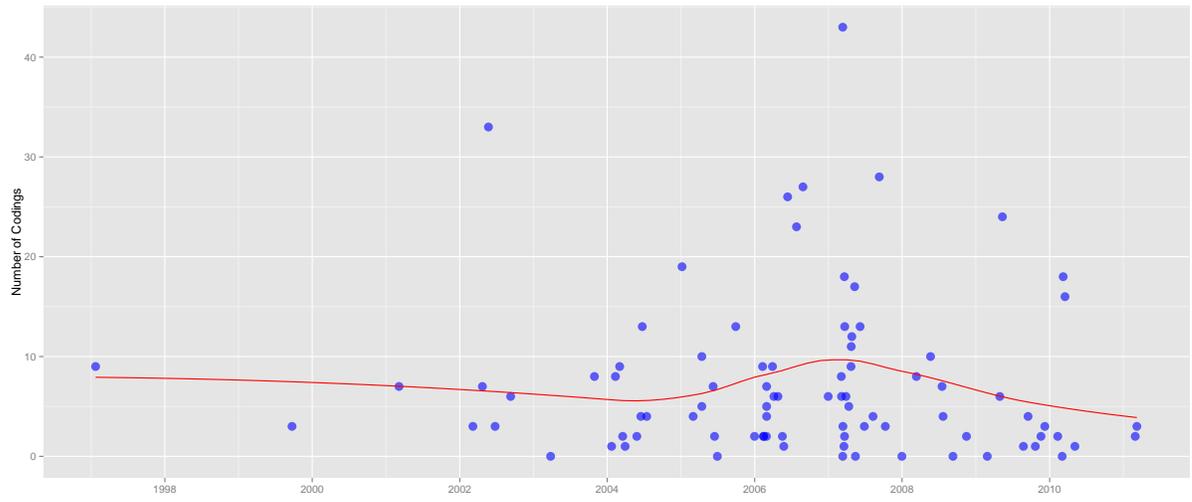


Figure C.58: Congressional Hearings - All Students

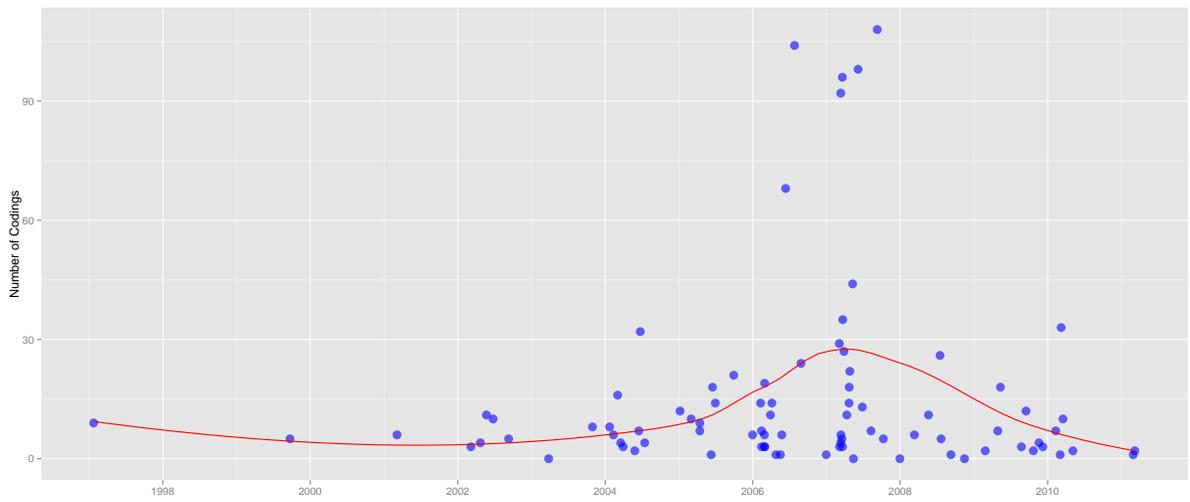


Figure C.59: Congressional Hearings - Student Assessment

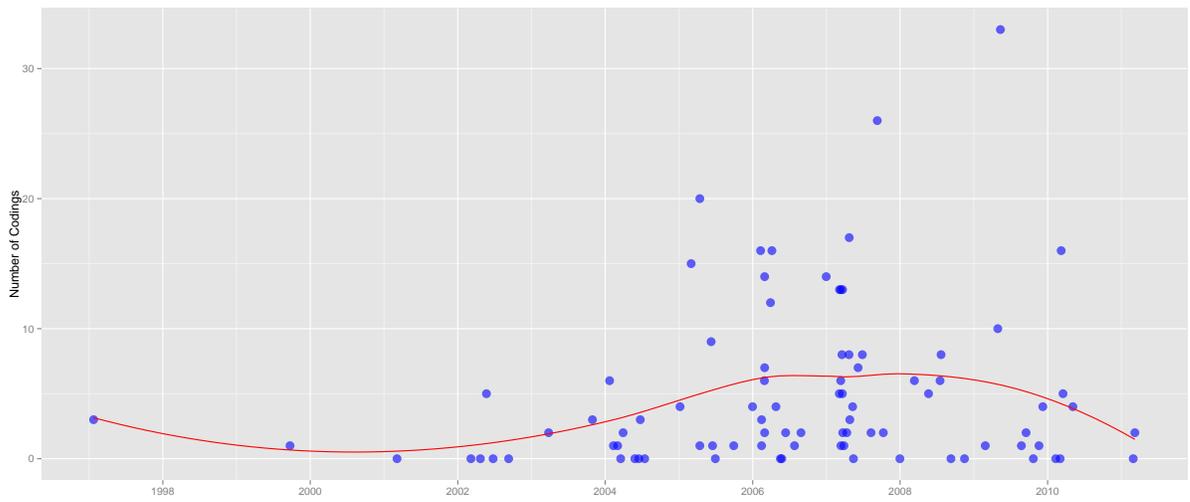


Figure C.61: Congressional Hearings - College Admissions and Success

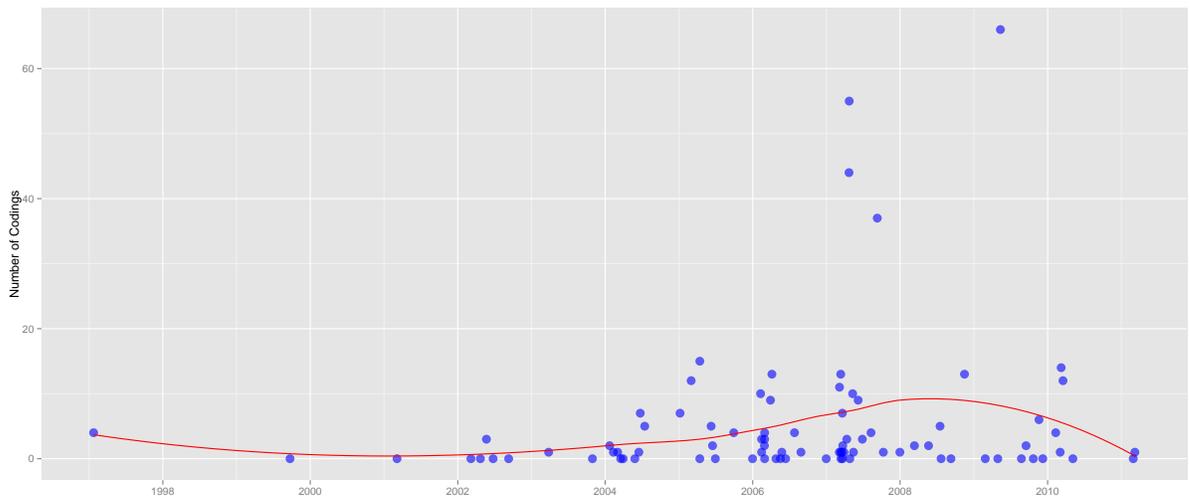


Figure C.63: Congressional Hearings - High School Graduation

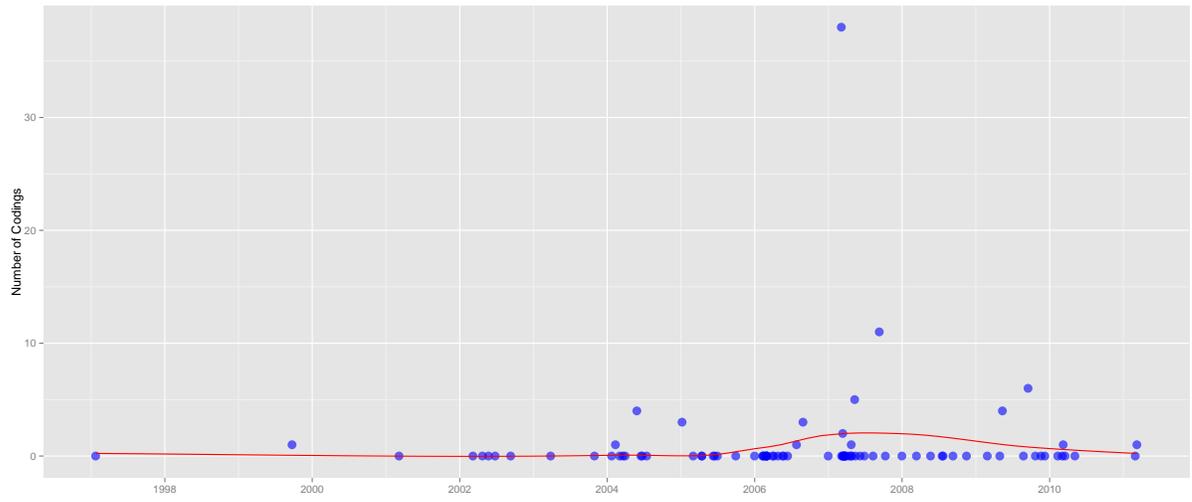


Figure C.65: Congressional Hearings - Teacher Assessment

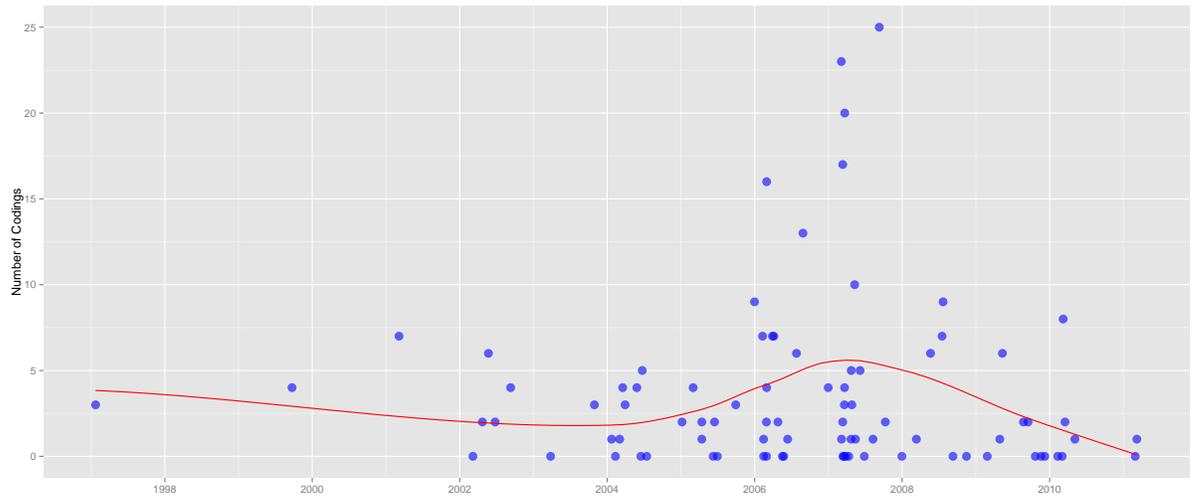


Figure C.67: Congressional Hearings - Teacher Professional Development

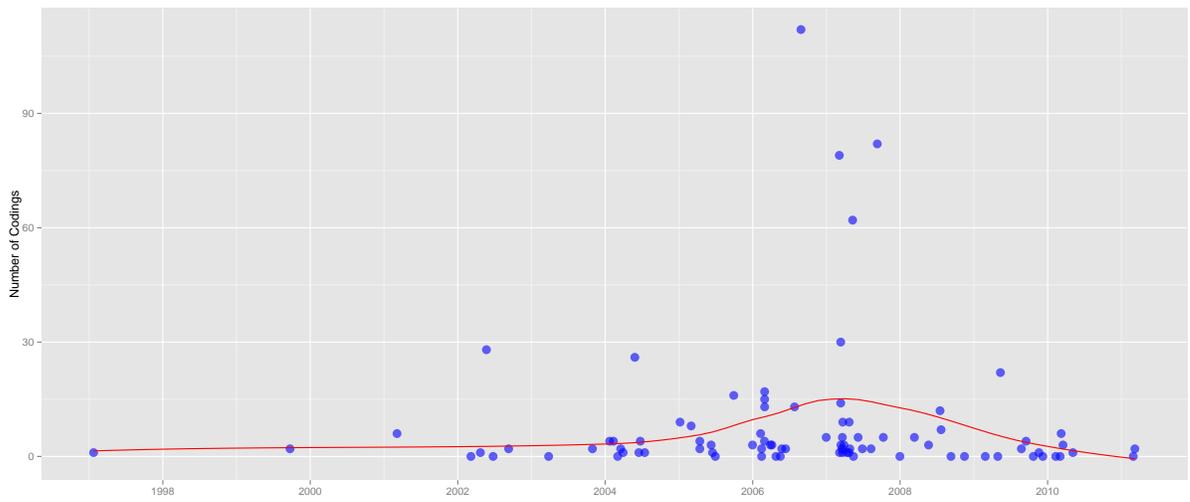


Figure C.68: Congressional Hearings - Teacher Quality

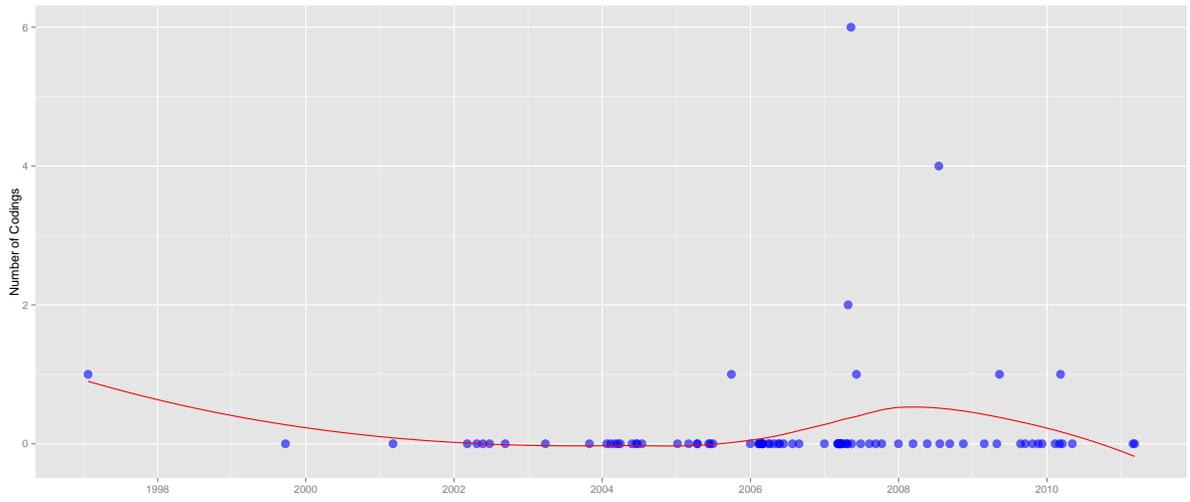


Figure C.69: Congressional Hearings - Teacher Replacement or Dismissal

APPENDIX D

TEXT MINING

D.1 Introduction

The text mining *corpora* were converted into a **document-term** matrix. This was a matrix where the rows corresponded to the documents and the columns to the terms. Statistical analyses are performed on these matrices.

I created a text mining ‘dictionary’ for each document collection that contained terms of interest based on the research question and the results of the reading of the sources that preceded the statistical analysis (see Table D.1, page 561, see also Section 4.5). Notice that the words in the table are “stemmed” as well as “unstemmed” to match the outcome of the stemming that was done during the processing of the documents. The numbers in the columns “Congr. hearings” and “Pres. docs” were used as a cut-off value when association between terms are calculated. The lower the correlation limit, the higher the number of associated terms that are returned by *tm*. The correlation limit was set at a level that yielded about 10 to 20 correlated terms. Each correlated term will have a value associated to it that represents the statistical correlation, i.e. Pearson’s r . Cluster dendrograms were built using Ward’s method (see Everitt, Landau, & Leese, 2011).

See Section 4.5 for a discussion and presentation of these results.

Table D.1: Dictionary for Congressional Hearings and Presidential Documents

Stemmed	Unstemmed	Congr. hearings	Pres. docs
account	accountability	0.110	0.155
achiev	achievement	0.100	0.190
assess	assessment	0.130	0.205
compet	competition	0.080	0.175
disadvantag	disadvantaged	0.090	0.265
economi	economy	0.165	0.175
educat	education	0.150	0.150
equal	equal	0.075	0.250
equiti	equity	0.075	0.140
gap	gap	0.100	0.220
global	global	0.125	0.180
inequ	inequity	0.080	0.200
math	math	0.150	0.200
naep	naep	0.100	0.250
pisa	pisa	0.160	0.320
poverti	poverty	0.075	0.280
reform	reform	0.110	0.240
school	school	0.170	0.160
standard	standard	0.120	0.155
teacher	teacher	0.180	0.190
timss	timss	0.155	0.170

D.2 Presidential Documents

Table D.2: Presidential Documents - Terms Associated with “achiev”

achiev	gap	close	score	america	african	card	report	minor	nation
1.00	0.71	0.56	0.34	0.32	0.29	0.29	0.28	0.27	0.27
grader	alltim	kept	narrow	naep	math	student	white		
0.25	0.23	0.21	0.21	0.20	0.19	0.19	0.19		

Table D.3: Presidential Documents - Terms Associated with “assess”

assess	teamwork	onboard	pencil
1.00	0.33	0.27	0.27
possess	think	entrepreneurship	creativ
0.27	0.27	0.26	0.25
outstand	adopt	pictur	snapshot
0.24	0.23	0.23	0.23
thrive	enforc	heroic	
0.23	0.22	0.21	

Table D.4: Presidential Documents - Terms Associated with “compet”

compet	twentyfirst	centuri	global	skill	world
1.00	0.39	0.38	0.30	0.26	0.25
chines	indian	firewal	bangalor	beij	india
0.23	0.23	0.22	0.21	0.21	0.21
motion	abl	intern	urgenc	tabl	confid
0.21	0.19	0.19	0.19	0.18	0.17
diploma	generat				
0.17	0.17				

Table D.5: Presidential Documents - Terms Associated with “disadvantag”

disadvantag	esea	affluent	alloc	prompt
1.00	0.43	0.37	0.37	0.37
treatment	formula	framework	lowestperform	peer
0.37	0.35	0.35	0.35	0.35
regist	favor	furthest	phase	fewer
0.35	0.33	0.30	0.29	0.27
naep	target	titl	comment	disclosur
0.27	0.27	0.27	0.26	0.26
fiscal	student			
0.26	0.26			

Table D.6: Presidential Documents - Terms Associated with “economi”

economi	dynam	wide	inequ	male	tear	grow	global
1.00	0.46	0.46	0.45	0.40	0.38	0.37	0.34
earn	degre	deliv	incom	job	share	real	recent
0.28	0.24	0.24	0.23	0.23	0.23	0.22	0.22
skill	citizen	key	diploma	respond	studi	benchmark	educ
0.22	0.21	0.21	0.20	0.20	0.20	0.18	0.18
fastest	brainpow	clearer	continu	lowbal	polici	vibrant	
0.18	0.17	0.17	0.17	0.17	0.17	0.17	

Table D.7: Presidential Documents - Terms Associated with “equal”

equal	versa	distract	vice	affluent	alloc	charact	rural
1.00	0.55	0.44	0.38	0.34	0.34	0.34	0.34
treatment	formula	freedom	ideal	line	press	fight	furthest
0.34	0.33	0.32	0.32	0.30	0.30	0.28	0.28
consensus	phase	raza	urban	civil	distribut	hamstr	regard
0.27	0.27	0.25	0.25	0.24	0.24	0.24	0.23
treat	unprepar	includ	leagu				
0.23	0.22	0.21	0.21				

Table D.8: Presidential Documents - Terms Associated with “gap”

gap	close	achiev	america	score	minor	white	african
1.00	0.76	0.71	0.40	0.38	0.37	0.35	0.34
kept	card	narrow	rise	soft	alltim	american	bigotri
0.30	0.27	0.27	0.26	0.25	0.24	0.24	0.24
countri	diagnos	elect	nation	report			
0.23	0.23	0.23	0.23	0.22			

Table D.9: Presidential Documents - Terms Associated with “global”

global	china	economi	india	compet
1.00	0.50	0.34	0.34	0.30
els	competit	foundat	confid	consensus
0.26	0.23	0.23	0.22	0.22
live	world	raza	abroad	protectionist
0.22	0.21	0.20	0.19	0.19
skill				
0.19				

Table D.10: Presidential Documents - Terms Associated with “inequ”

inequ	wide	male	tear	deliv	incom
1.00	0.86	0.76	0.72	0.47	0.46
economi	respond	citizen	studi	share	recent
0.45	0.39	0.37	0.32	0.31	0.29
rise	injustic	key	mob	oblig	worri
0.28	0.27	0.27	0.27	0.24	0.24
real	leav				
0.22	0.20				

Table D.11: Presidential Documents - Terms Associated with “math”

math	scienc	score	grader	panel	record	african	american
1.00	0.55	0.41	0.33	0.33	0.29	0.28	0.24
execut	materi	report	student	nation	read	advis	method
0.24	0.24	0.24	0.24	0.23	0.23	0.22	0.21
old	rigor						
0.20	0.20						

Table D.12: Presidential Documents - Terms Associated with “naep”

naep	framework	lowestperform	regist	esea
1.00	0.81	0.81	0.81	0.72
trend	poverti	integr	current	popul
0.59	0.58	0.49	0.44	0.41
recent	primari	target	adopt	glimps
0.35	0.32	0.30	0.29	0.29
improv	specif	disadvantag	signific	academ
0.28	0.28	0.27	0.26	0.25
press	gain	base		
0.25	0.23	0.21		

Table D.13: Presidential Documents - Terms Associated with “poverti”

poverti	framework	lowestperform	regist	esea
1.00	0.73	0.73	0.73	0.65
naep	trend	integr	current	popul
0.58	0.53	0.44	0.40	0.37
target	plagu	scandal	unabl	disturb
0.34	0.33	0.33	0.33	0.31
erad	processori	primari	affair	canada
0.31	0.31	0.29	0.27	0.27
exacerb	exoffend	paraprofession	zone	adopt
0.27	0.27	0.27	0.27	0.26
barrier	crime			
0.26	0.26			

Table D.14: Presidential Documents - Terms Associated with “school”

school	public	charter	parent	manag	shut	civic
1.00	0.34	0.28	0.25	0.23	0.21	0.20
elementari	intervent	leeway	district	junior	diploma	perform
0.20	0.20	0.20	0.19	0.19	0.18	0.18
restart	involv	bullet	famili	kept		
0.18	0.17	0.16	0.16	0.16		

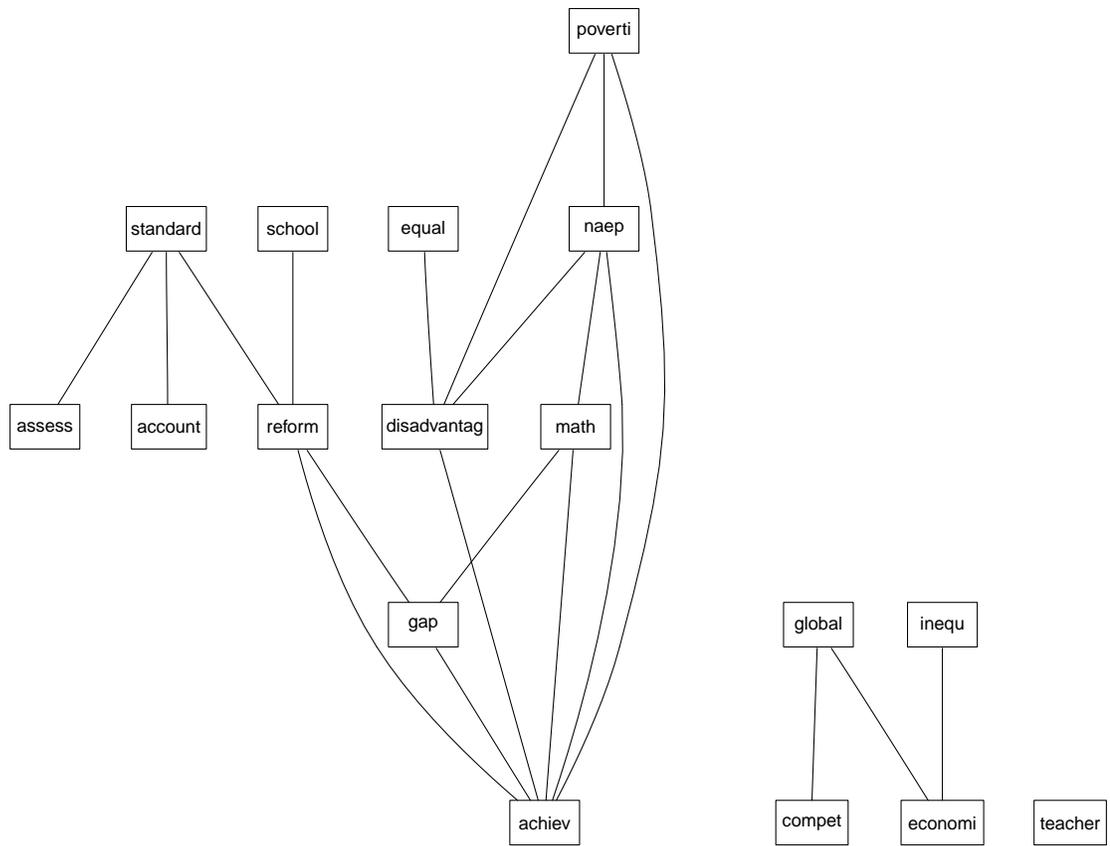


Figure D.1: Presidential Documents - Correlation Plot of Dictionary Terms

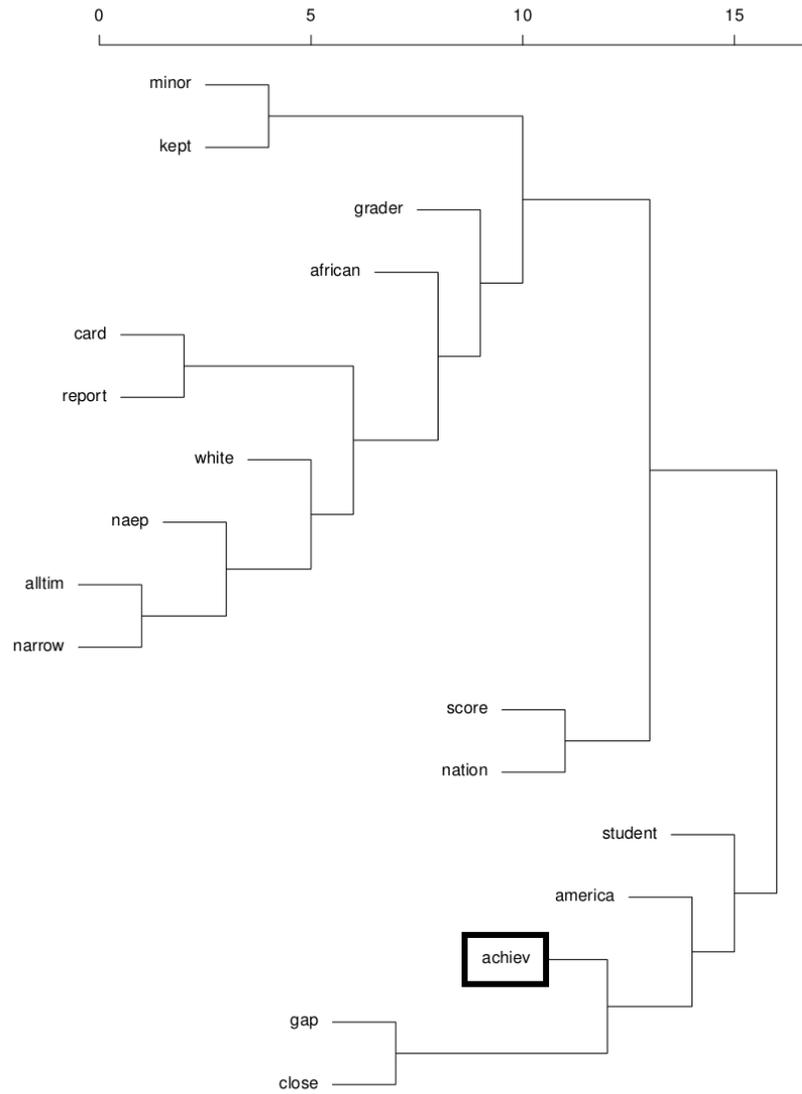


Figure D.2: Presidential Documents - Dendrogram of “achiev”

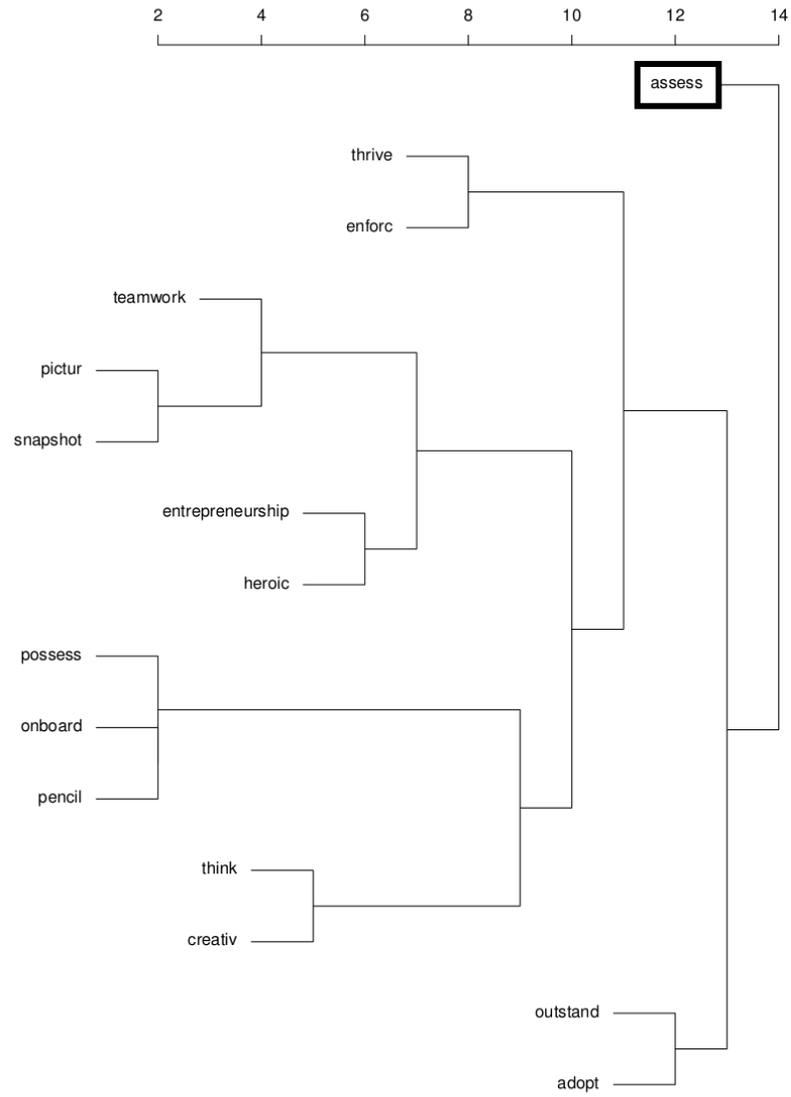


Figure D.3: Presidential Documents - Dendrogram of “assess”

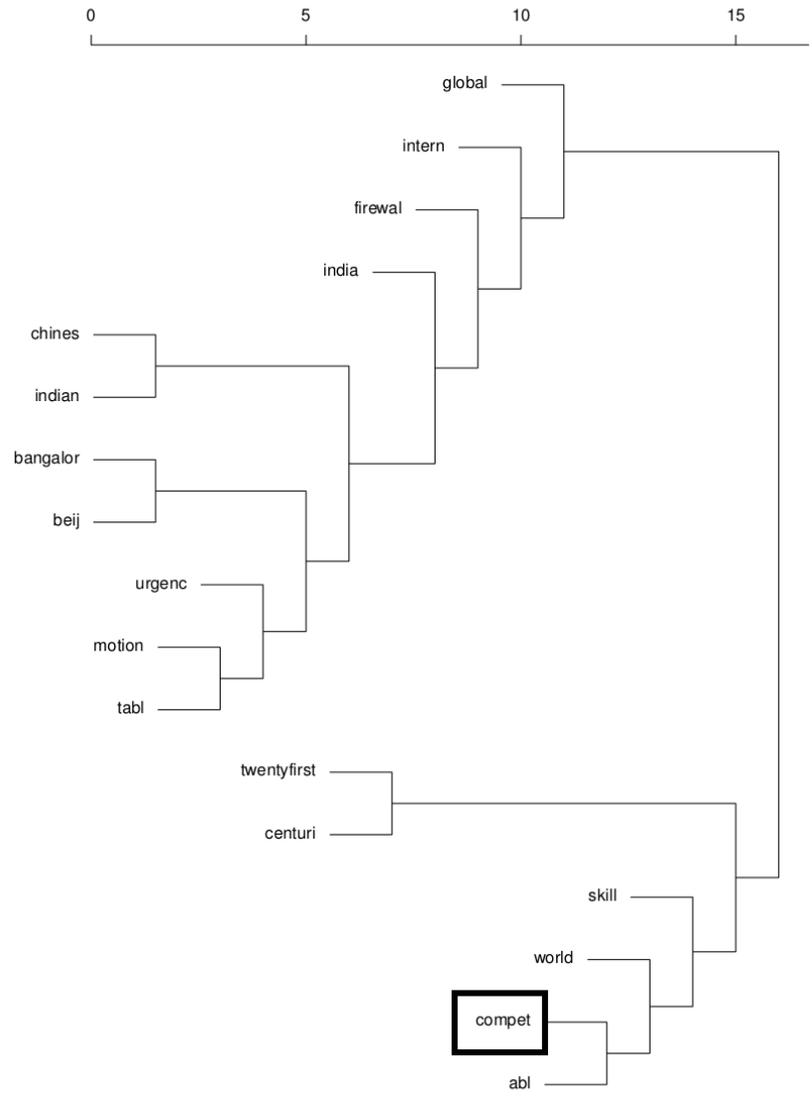


Figure D.4: Presidential Documents - Dendrogram of “disadvantage”

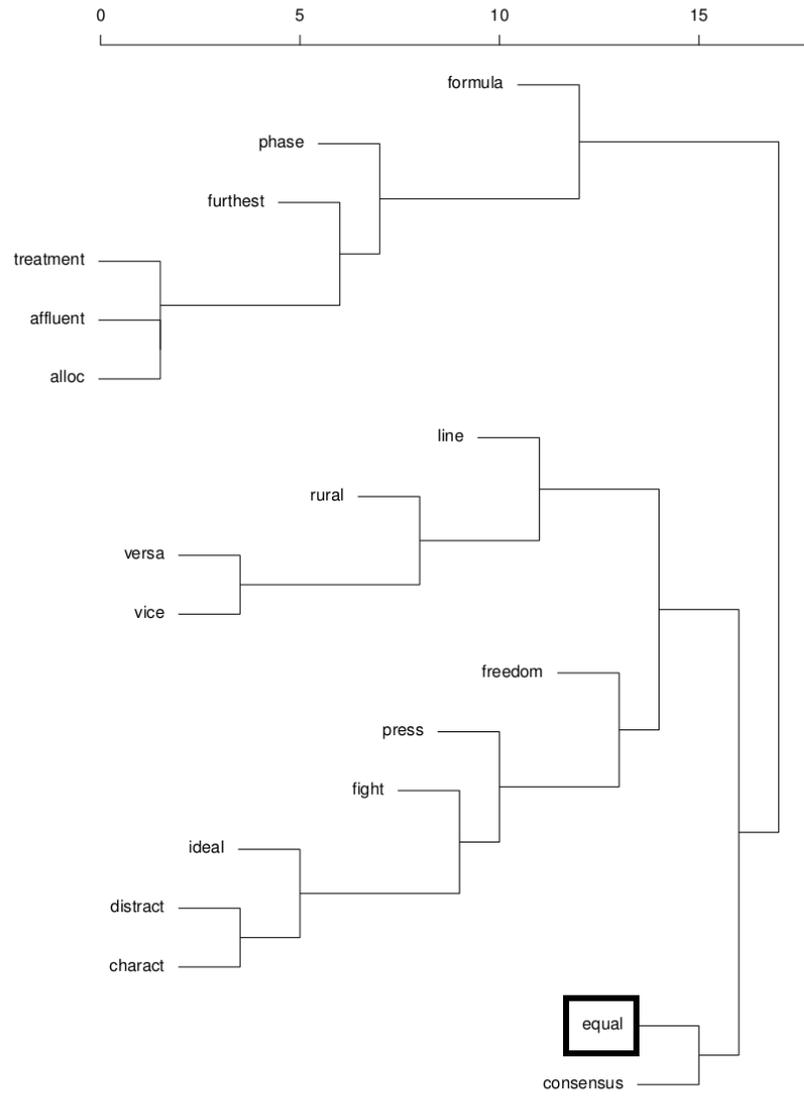


Figure D.5: Presidential Documents - Dendrogram of “equal”

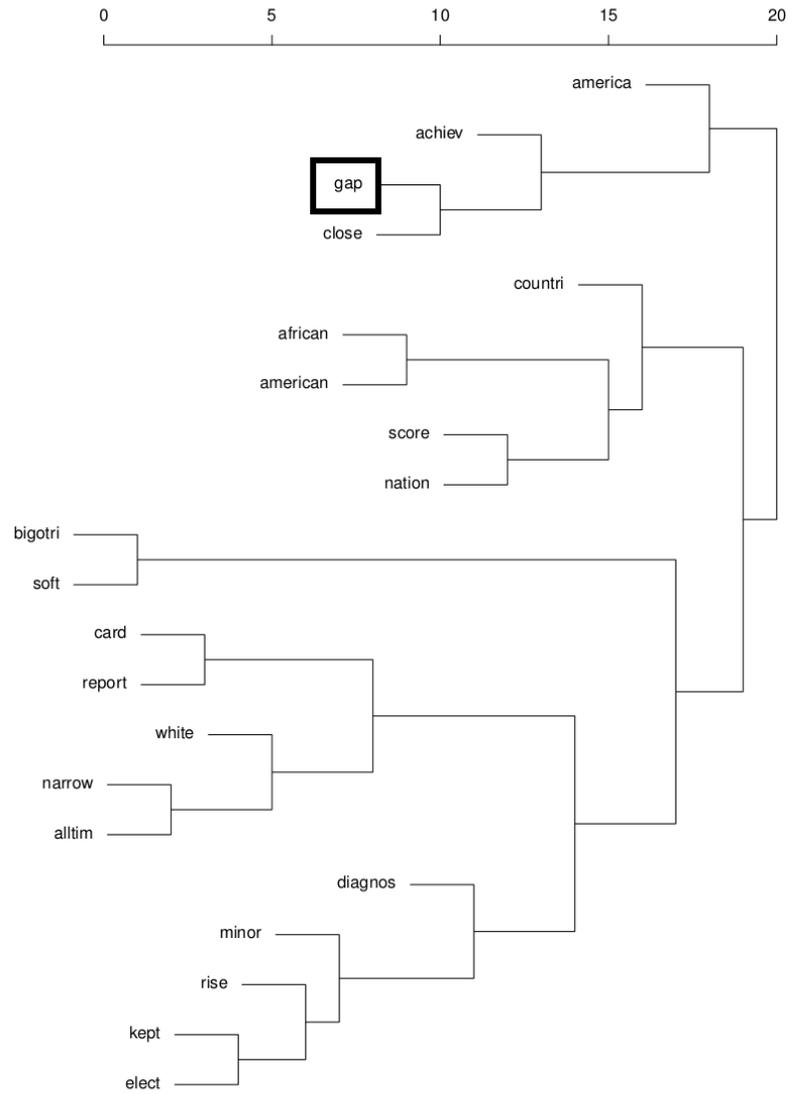


Figure D.6: Presidential Documents - Dendrogram of “gap”

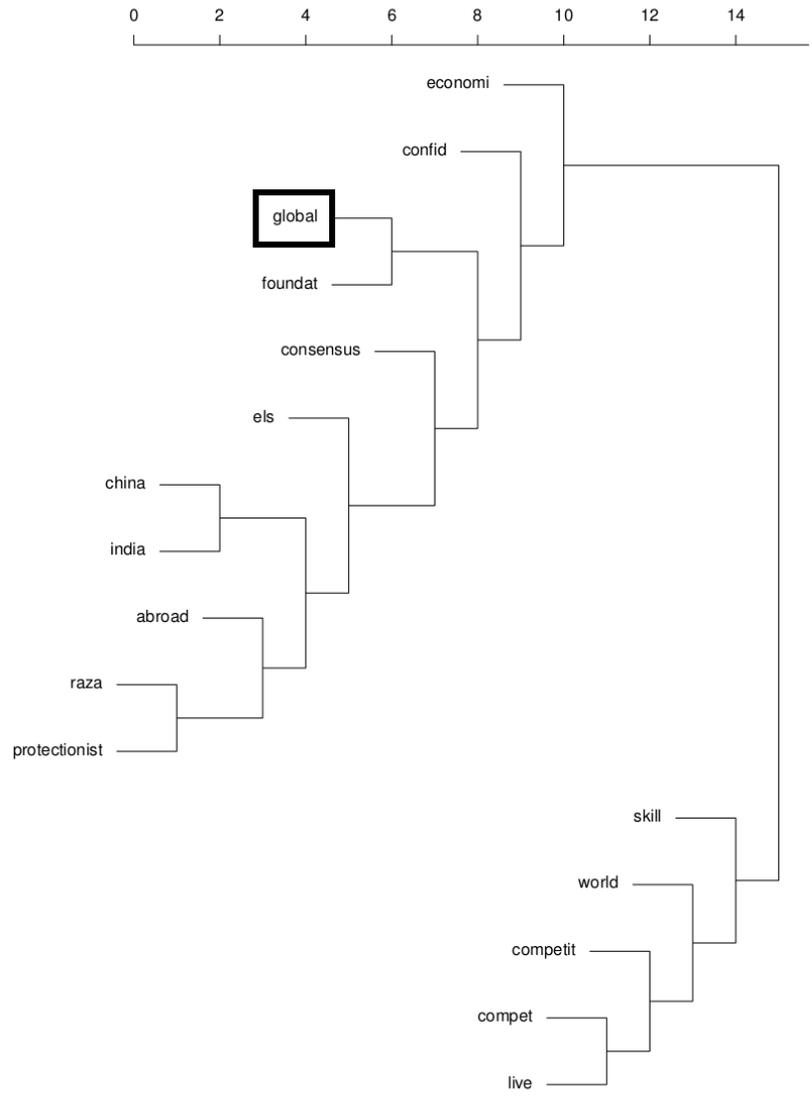


Figure D.7: Presidential Documents - Dendrogram of “global”

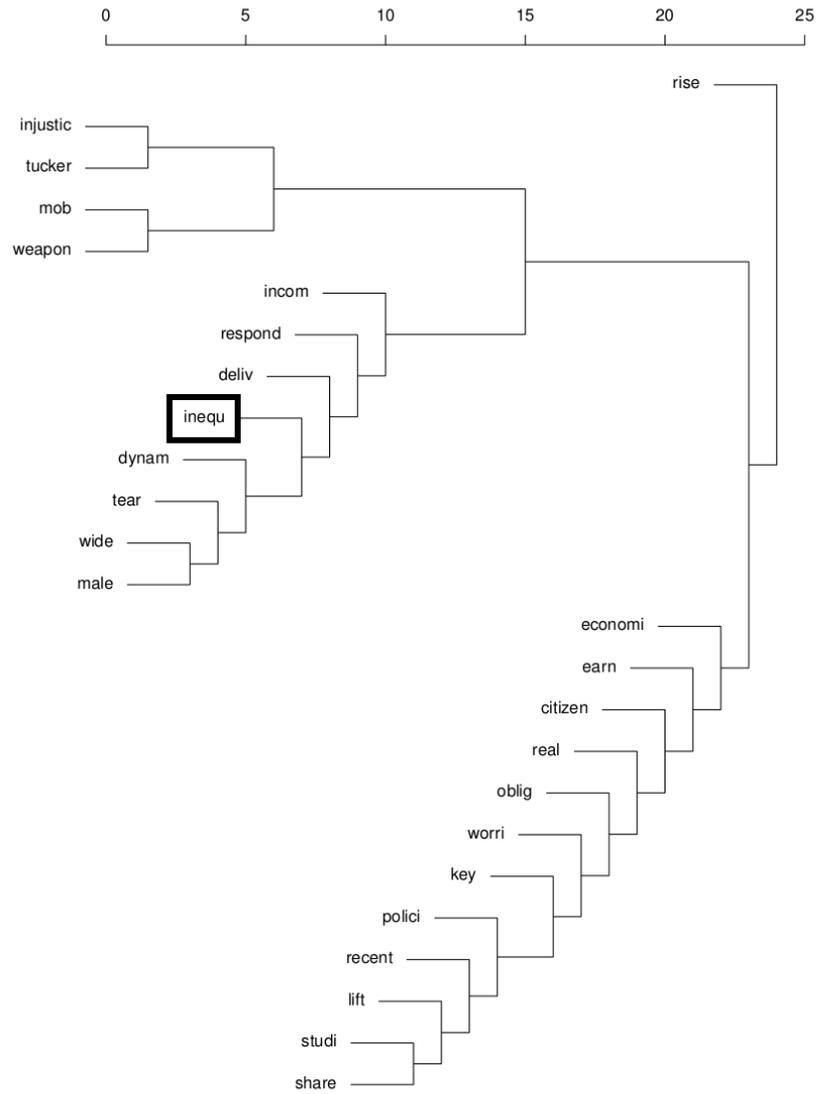


Figure D.8: Presidential Documents - Dendrogram of “inequ”

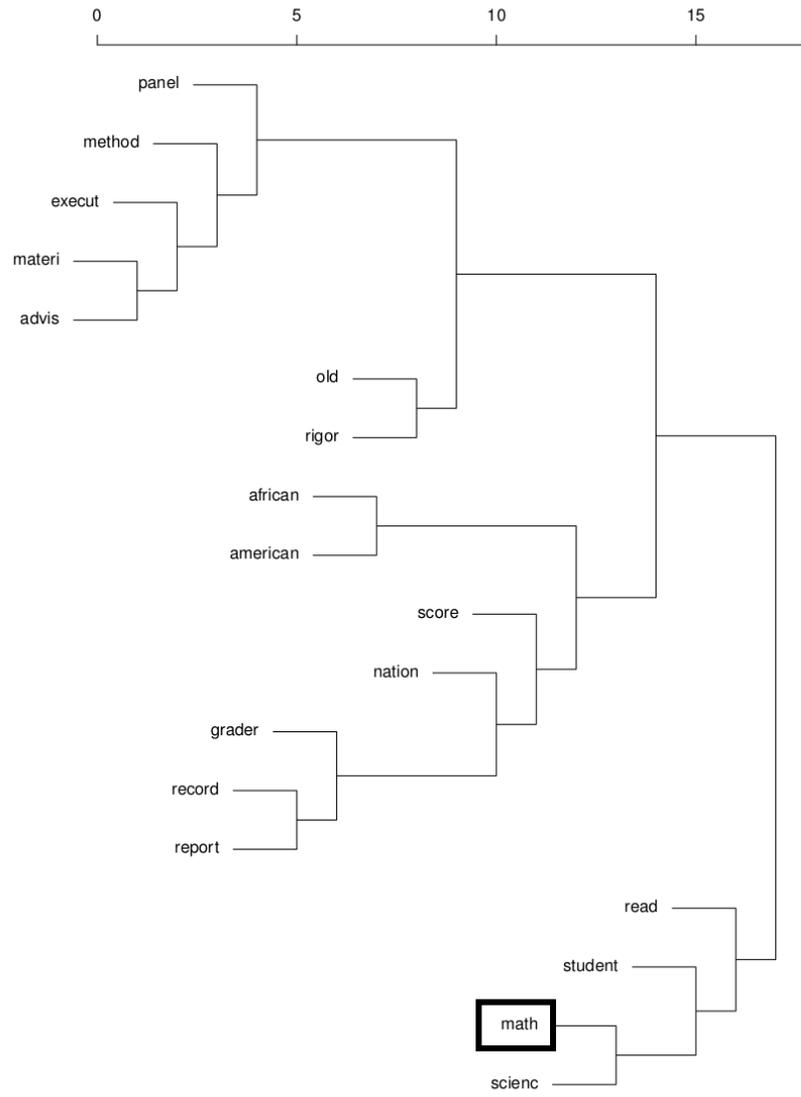


Figure D.9: Presidential Documents - Dendrogram of “math”

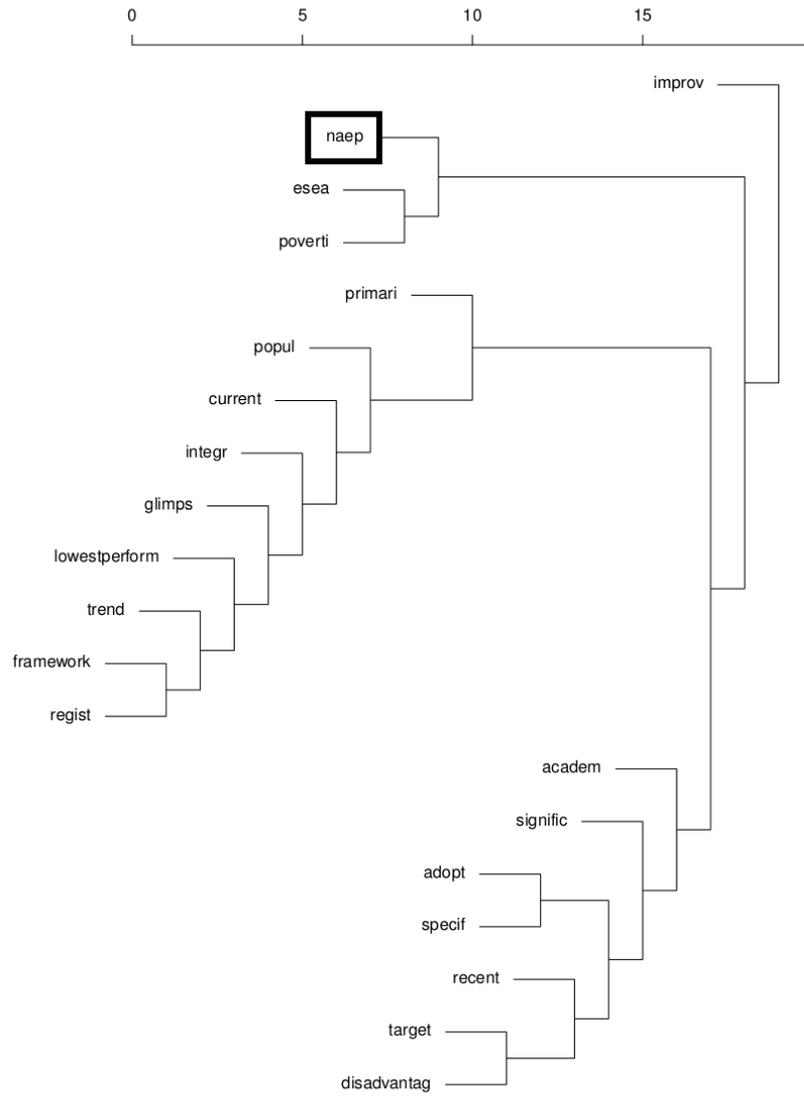


Figure D.10: Presidential Documents - Dendrogram of “naep”

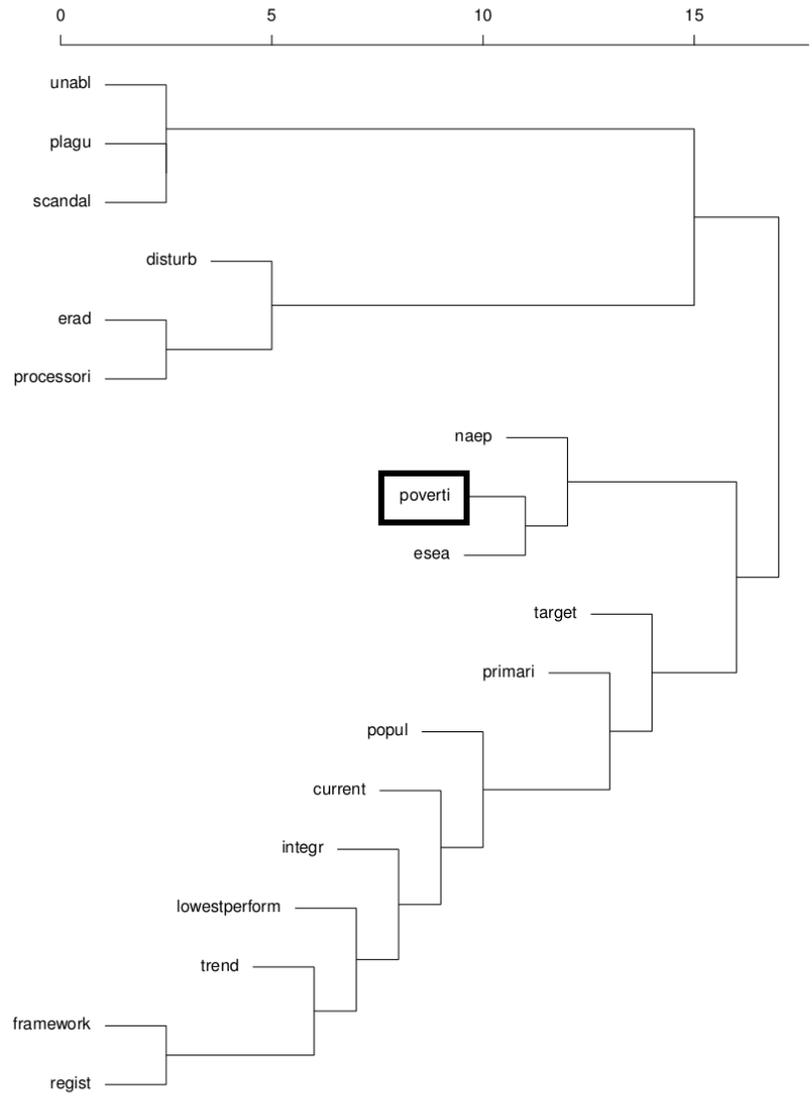


Figure D.11: Presidential Documents - Dendrogram of “poverti”

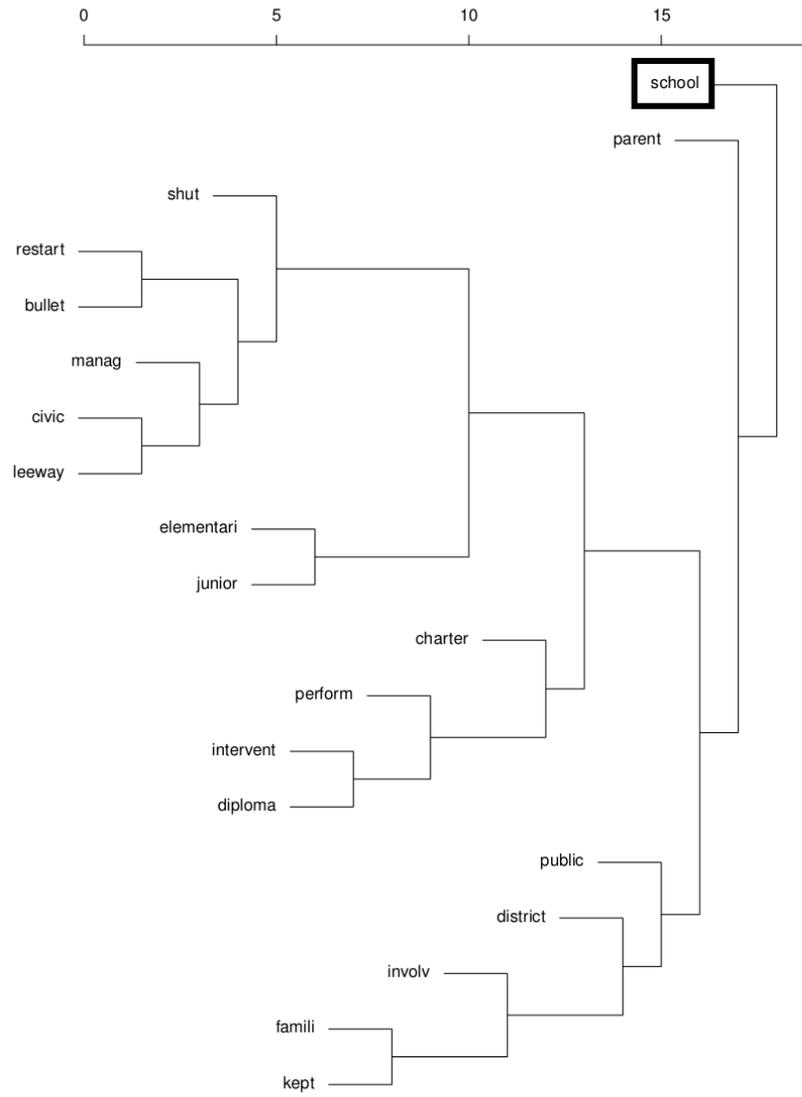


Figure D.12: Presidential Documents - Dendrogram of “school”

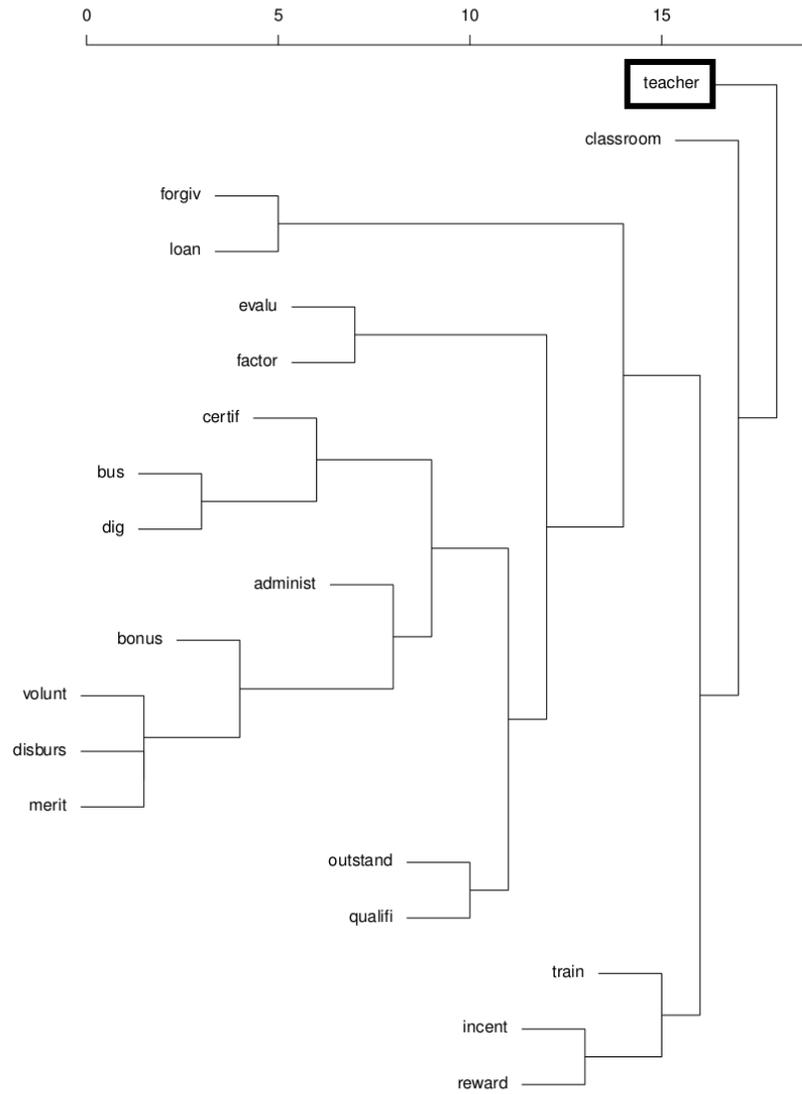


Figure D.13: Presidential Documents - Dendrogram of “teacher”

D.3 Congressional Hearings

Table D.15: Congressional Hearings - Terms Associated with “achiev”

achiev	gap	close	student	rais	narrow	improv	gain
1.00	0.53	0.38	0.29	0.23	0.21	0.19	0.16
level	academ	goal	nclb	success	demonstr	help	support
0.16	0.15	0.14	0.12	0.12	0.11	0.11	0.11
account	intervent	overall					
0.10	0.10	0.10					

Table D.16: Congressional Hearings - Terms Associated with “assess”

assess	standard	includ	measur	altern	perform	learn	valid
1.00	0.23	0.21	0.21	0.20	0.18	0.17	0.17
align	develop	multipl	system	grade	student	test	think
0.16	0.16	0.16	0.16	0.15	0.15	0.15	0.15
appropri	content	use	inform	reliabl			
0.14	0.14	0.14	0.13	0.13			

Table D.17: Congressional Hearings - Terms Associated with “compet”

compet	global	economi	prepar	world	citizen	competit	educ
1.00	0.33	0.22	0.16	0.16	0.14	0.11	0.11
subject	stem	countri	object	pisa	skill	environ	high
0.11	0.10	0.09	0.09	0.09	0.09	0.08	0.08
live	technolog						
0.08	0.08						

Table D.18: Congressional Hearings - Terms Associated with “disadvantag”

disadvantag	pell	student	econom	advantag	view
1.00	0.15	0.15	0.14	0.13	0.13
kid	gap	peer	hispan	poor	serv
0.12	0.11	0.11	0.10	0.10	0.09

Table D.19: Congressional Hearings - Terms Associated with “economi”

economi	global	competit	worker	compet	econom
1.00	0.45	0.26	0.23	0.22	0.22
job	twentyfirst	centuri	skill	american	futur
0.20	0.20	0.19	0.18	0.17	0.17
nation	workforc				
0.17	0.17				

Table D.20: Congressional Hearings - Terms Associated with “equal”

equal	opportun	educ	congress	access	right	board	assur
1.00	0.20	0.18	0.16	0.11	0.10	0.09	0.08
decis	equiti	govern	ignor	monitor	public	respect	salari
0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08

Table D.21: Congressional Hearings - Terms Associated with “equiti”

equiti	plan	distribut	equit	excel	provis	dispar	outcom
1.00	0.16	0.13	0.13	0.13	0.12	0.10	0.10
citizen	depart	govern	color	commiss	equal	final	persist
0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08

Table D.22: Congressional Hearings - Terms Associated with “gap”

gap	close	achiev	narrow	white	student
1.00	0.60	0.53	0.30	0.21	0.13
peer	persist	rais	disadvantag	signific	black
0.12	0.12	0.12	0.11	0.11	0.10
elimin					
0.10					

Table D.23: Congressional Hearings - Terms Associated with “global”

global	economi	competit	compet	technolog	nation	world	prepar
1.00	0.45	0.37	0.33	0.20	0.19	0.19	0.17
workforc	america	secur	critic	innov	econom	futur	job
0.17	0.16	0.16	0.15	0.15	0.14	0.14	0.13

Table D.24: Congressional Hearings - Terms Associated with “inequ”

inequ	latino	educ	remedi	societi	acknowledg	act
1.00	0.13	0.11	0.11	0.11	0.10	0.10
lowincom	resourc	civil	feder	fundament	opportun	racial
0.10	0.10	0.09	0.09	0.09	0.09	0.09
right	address	follow	spend			
0.09	0.08	0.08	0.08			

Table D.25: Congressional Hearings - Terms Associated with “math”

math	scienc	engin	read	advanc	grade
1.00	0.64	0.25	0.23	0.18	0.18
partnership	cours	intern	initi	technolog	grader
0.18	0.17	0.17	0.16	0.16	0.15
physic					
0.15					

Table D.26: Congressional Hearings - Terms Associated with “naep”

naep	grader	basic	score	read	white	old	percent	differ	profici
1.00	0.31	0.21	0.21	0.18	0.18	0.14	0.14	0.13	0.13
result	trend	grade	level	releas	math	accord	gain	half	nation
0.13	0.13	0.12	0.12	0.12	0.11	0.10	0.10	0.10	0.10

Table D.27: Congressional Hearings - Terms Associated with “pisa”

pisa	intern	unit	outcom	perform	econom
1.00	0.38	0.31	0.26	0.25	0.24
countri	socioeconom	averag	old	bring	rank
0.21	0.21	0.20	0.18	0.17	0.17

Table D.28: Congressional Hearings - Terms Associated with “poverti”

poverti	minor	teacher	concentr	school	acknowledg	taught
1.00	0.18	0.16	0.15	0.13	0.11	0.11
matter	titl	distribut	incent	class	experi	live
0.10	0.10	0.09	0.09	0.08	0.08	0.08
low	qualifi	qualiti				
0.08	0.08	0.08				

Table D.29: Congressional Hearings - Terms Associated with “reform”

reform	school	bipartisan	congress	standardsbas	educ
1.00	0.17	0.16	0.15	0.15	0.14
implement	initi	improv	proven	success	call
0.14	0.14	0.13	0.12	0.12	0.11
comprehens	process				
0.11	0.11				

Table D.30: Congressional Hearings - Terms Associated with “school”

school	district	improv	fail	choic	student	lowperform
1.00	0.36	0.33	0.28	0.27	0.27	0.23
ayp	attend	intervent	public	miss	progress	sanction
0.22	0.20	0.20	0.20	0.19	0.18	0.18
servic	strategi	titl	year	contain	perform	
0.18	0.18	0.18	0.18	0.17	0.17	

Table D.31: Congressional Hearings - Terms Associated with “standard”

standard	align	assess	common	content	meet	set	measur
1.00	0.24	0.23	0.22	0.21	0.17	0.17	0.16
rigor	test	establish	benchmark	curricula	singl	think	control
0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.12
develop							
0.12							

Table D.32: Congressional Hearings - Terms Associated with “timss”

timss	cyprus	shortliv	africa	intern	farther	rank
1.00	0.49	0.46	0.44	0.41	0.40	0.34
lth	calculus	fearprovok	sacr	ahead	physic	reded
0.32	0.26	0.24	0.24	0.21	0.20	0.20
stark	precipit	predomin	quibbl	automobil	south	
0.20	0.19	0.19	0.19	0.18	0.18	

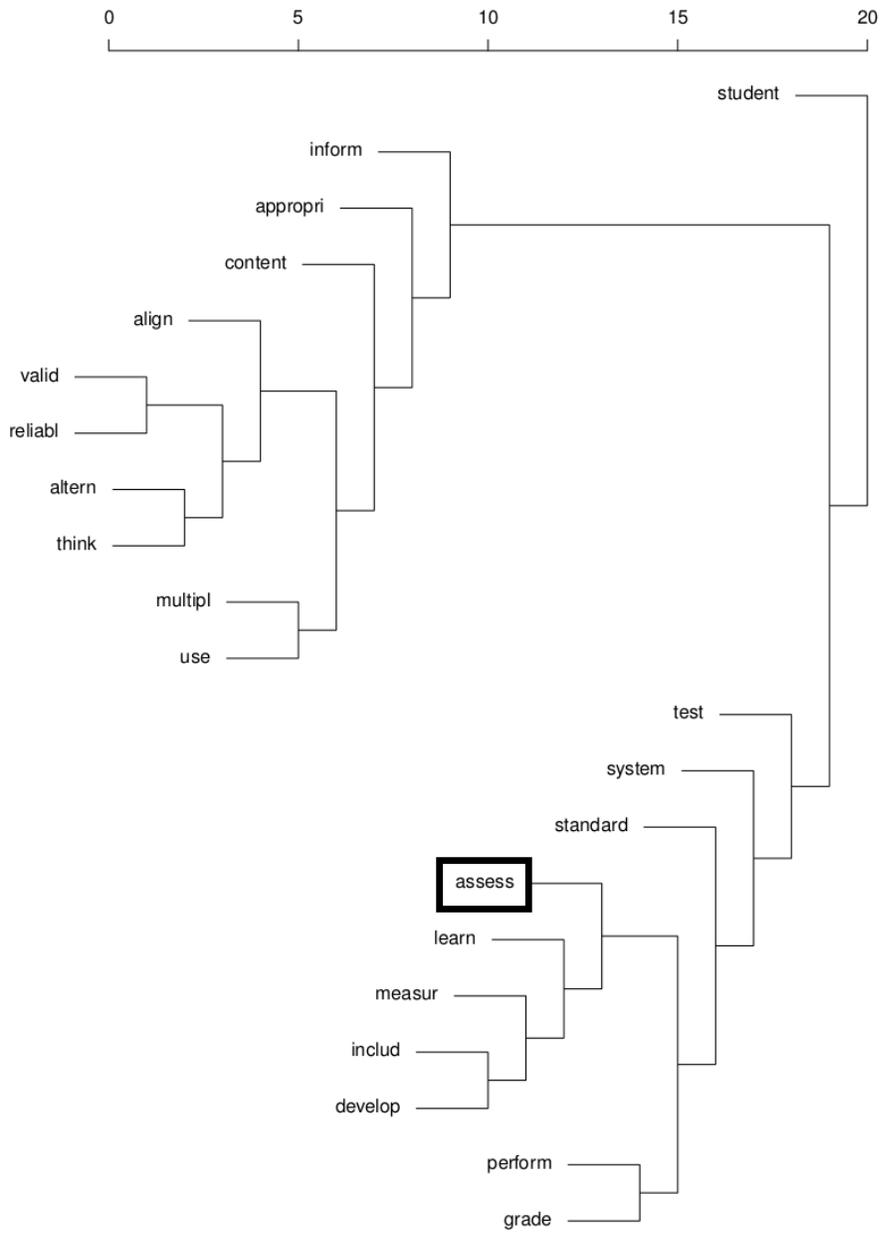


Figure D.15: Congressional Hearings - Dendrogram of “assess”

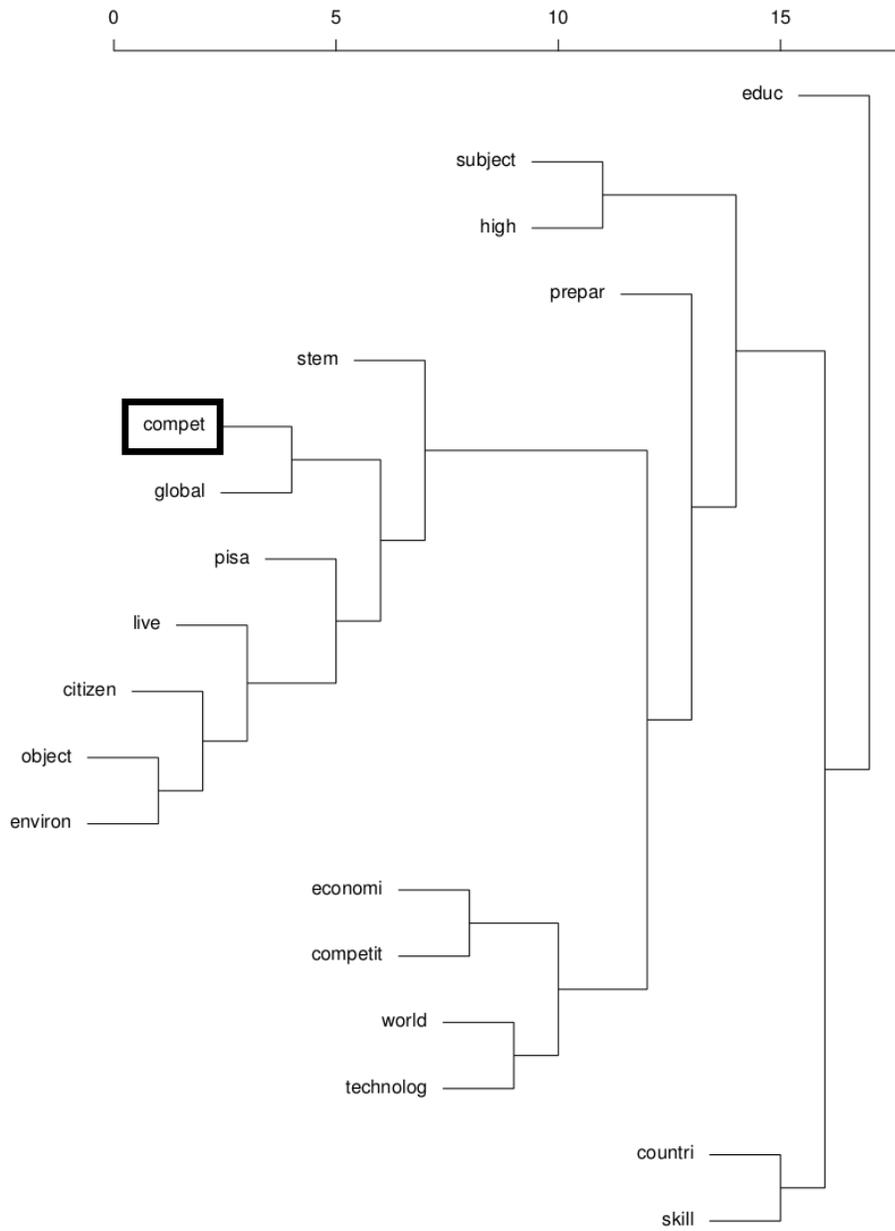


Figure D.16: Congressional Hearings - Dendrogram of “compet”

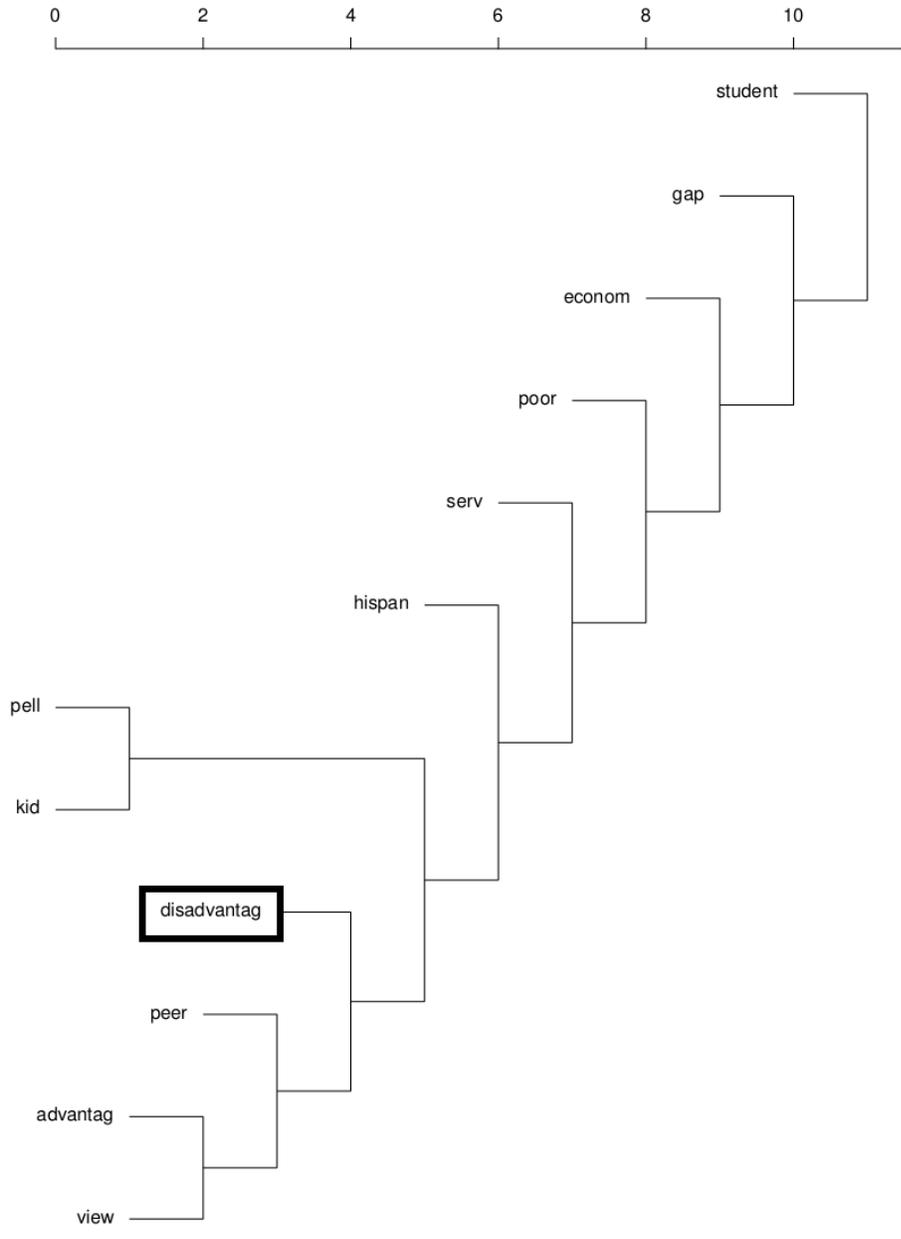


Figure D.17: Congressional Hearings - Dendrogram of “disadvantag”

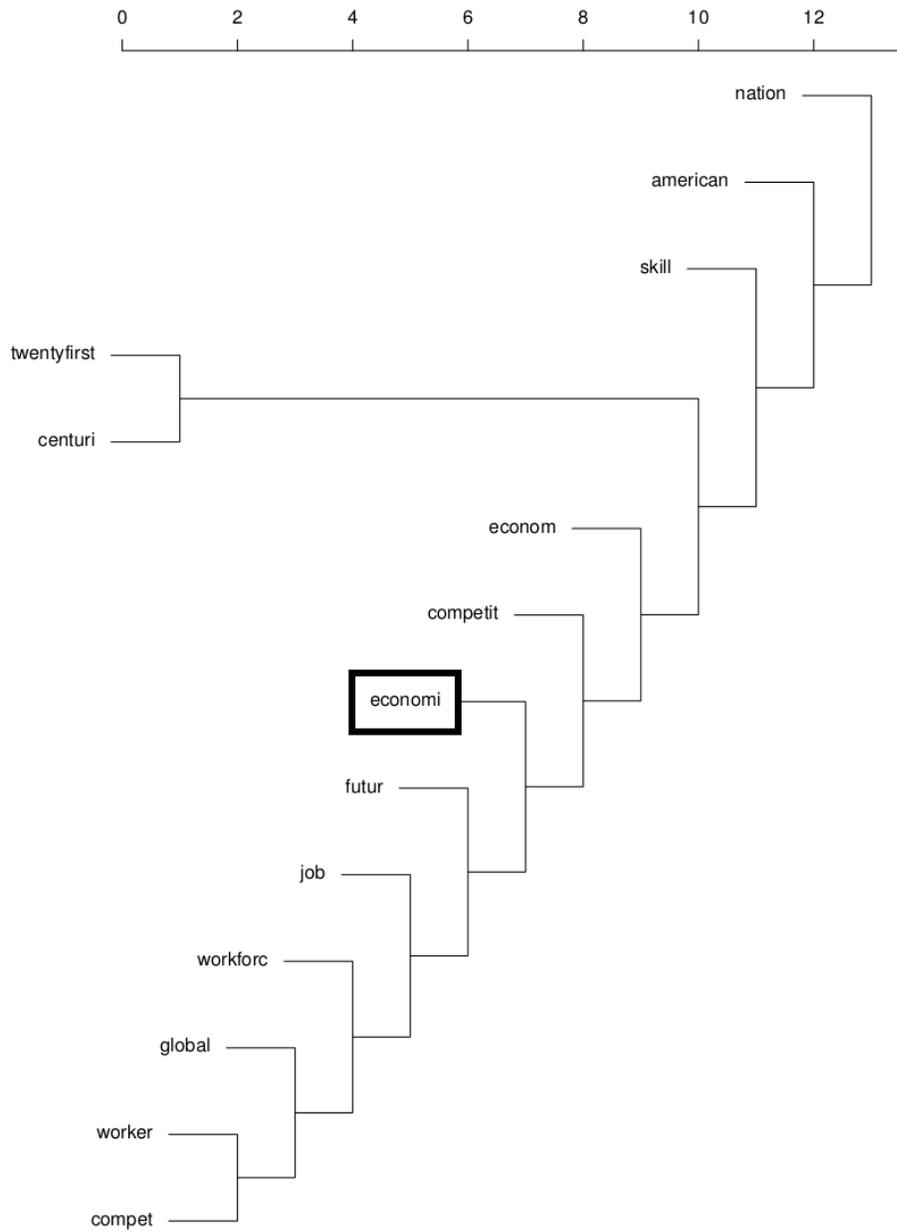


Figure D.18: Congressional Hearings - Dendrogram of “economi”

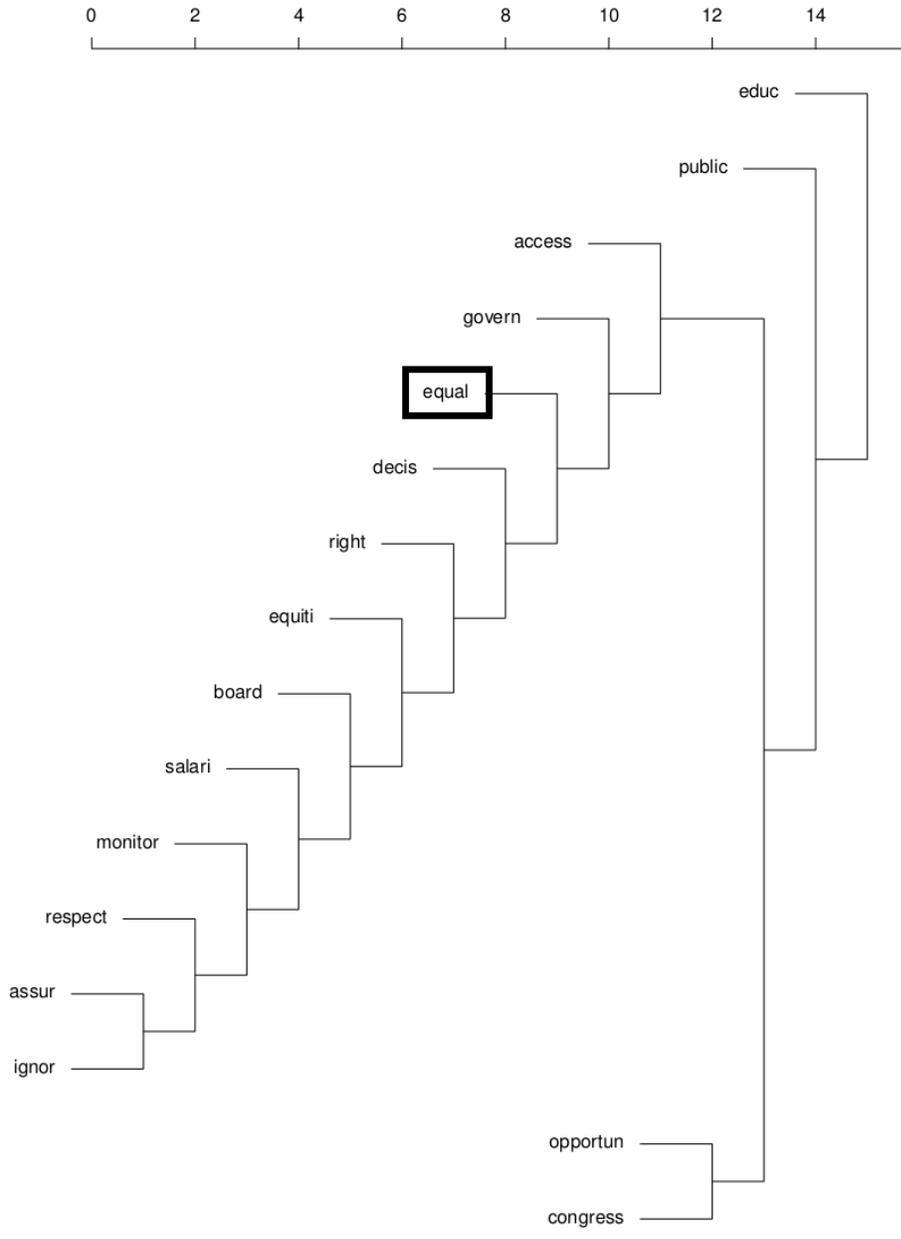


Figure D.19: Congressional Hearings - Dendrogram of “equal”

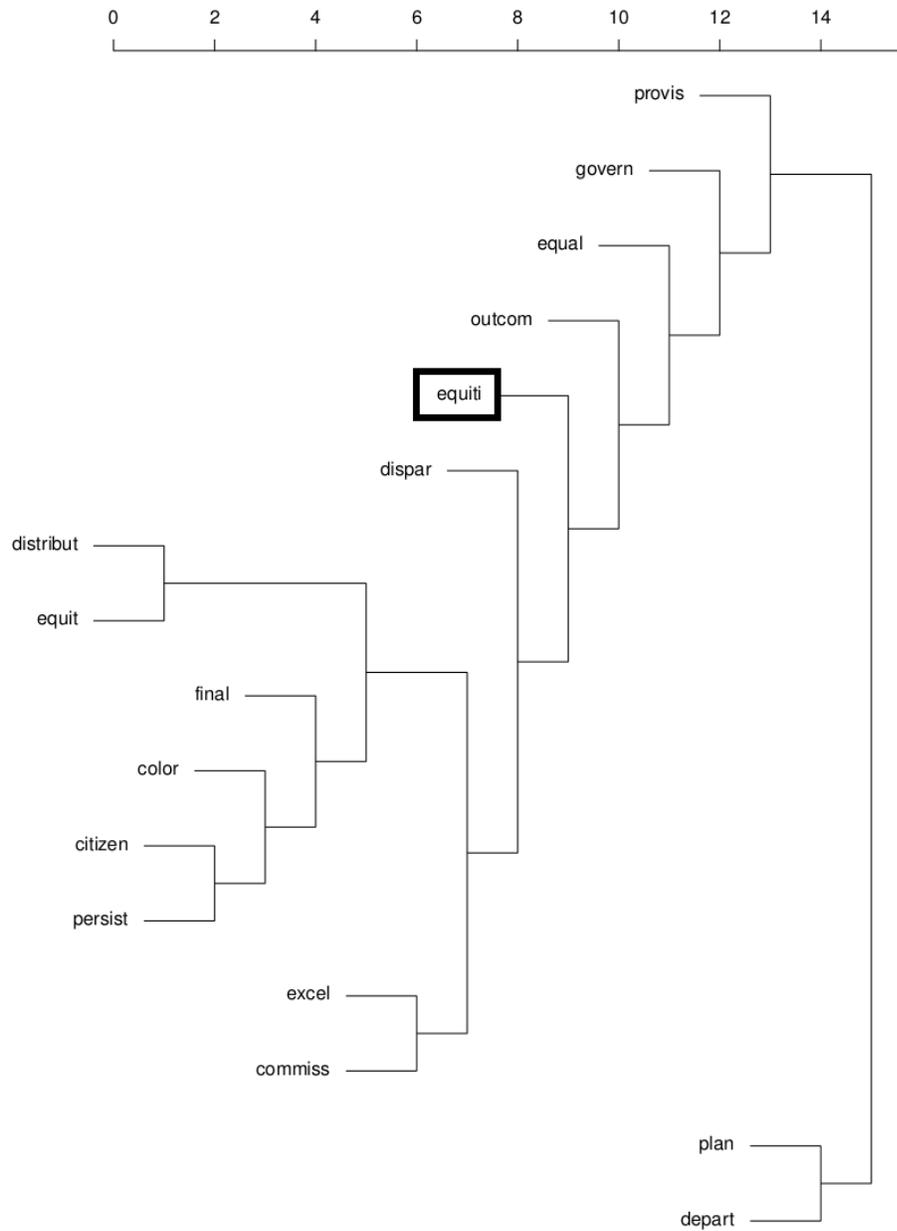


Figure D.20: Congressional Hearings - Dendrogram of “equiti”

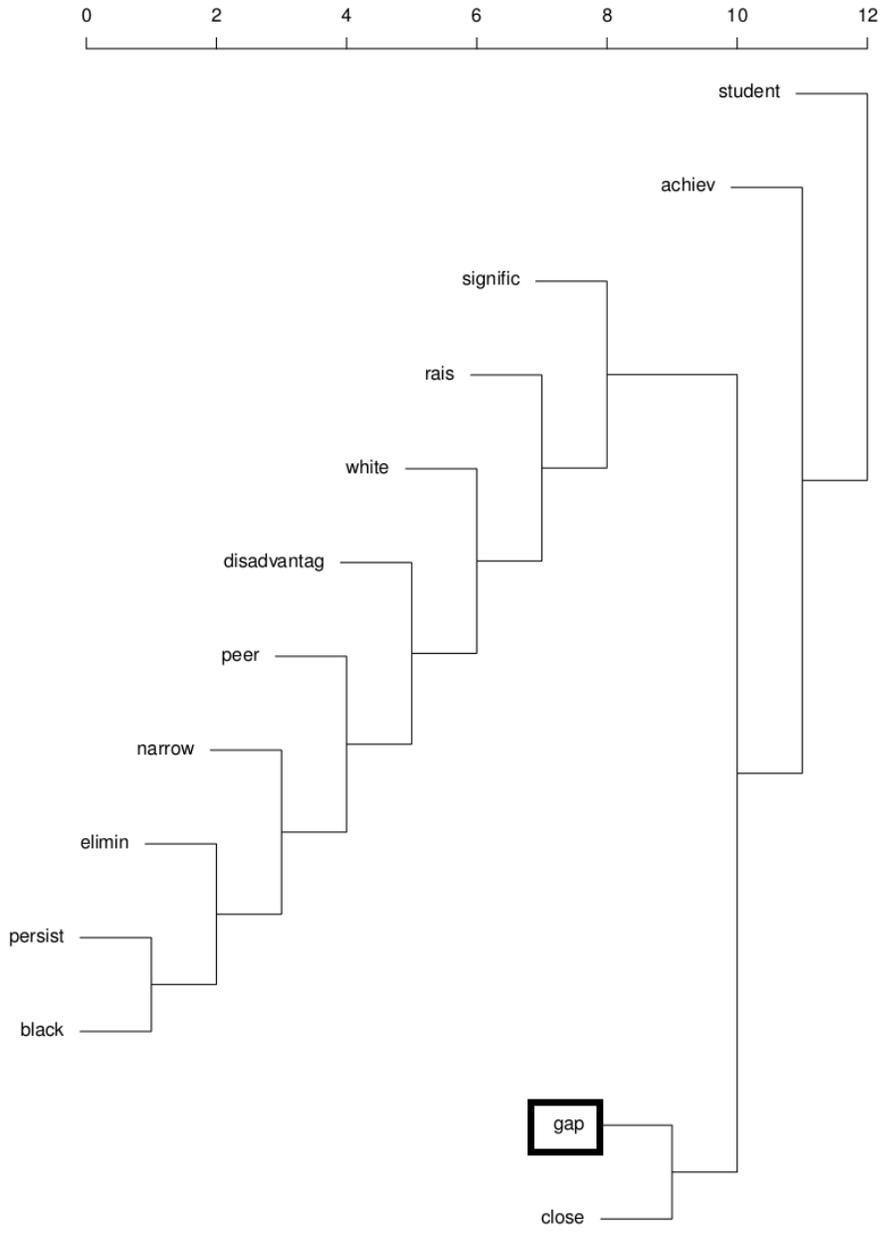


Figure D.21: Congressional Hearings - Dendrogram of “gap”

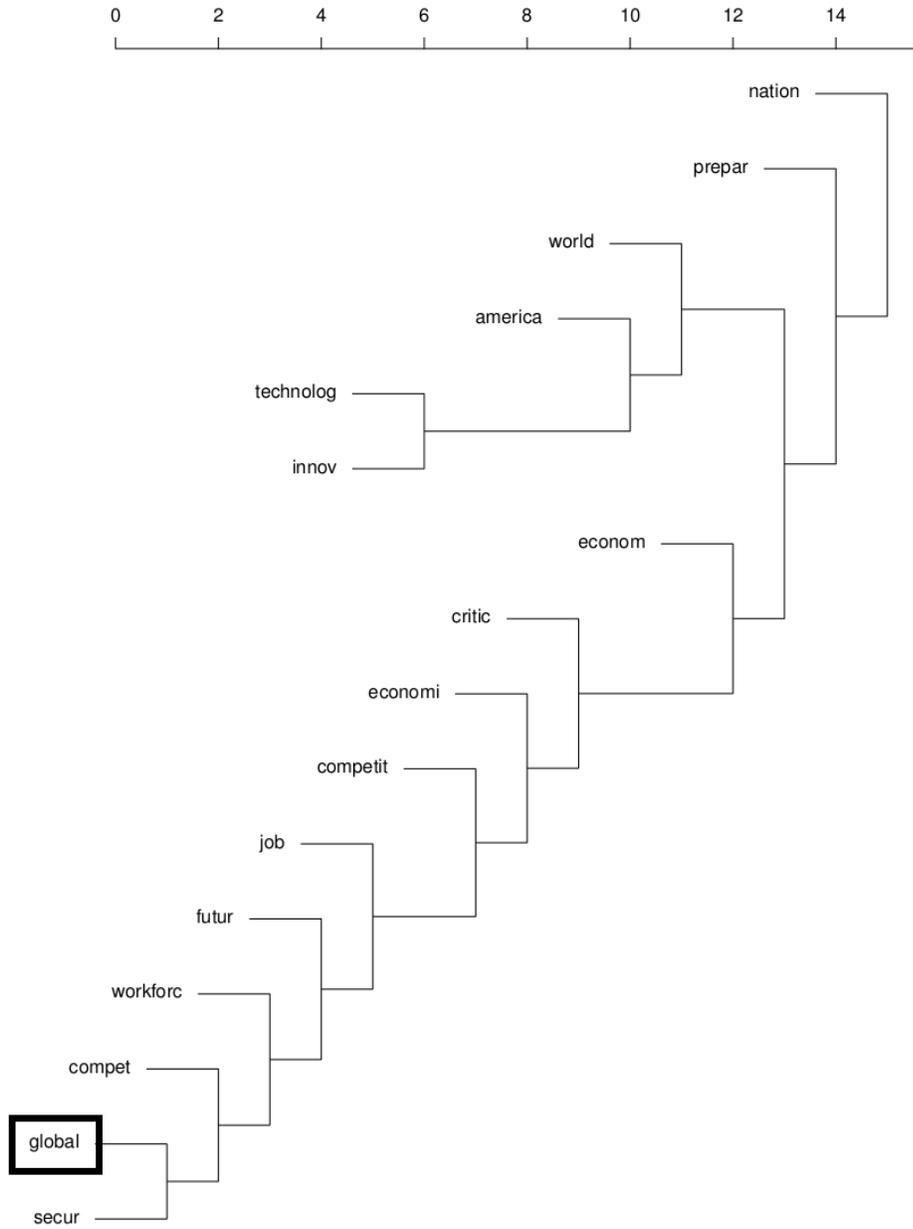


Figure D.22: Congressional Hearings - Dendrogram of “global”

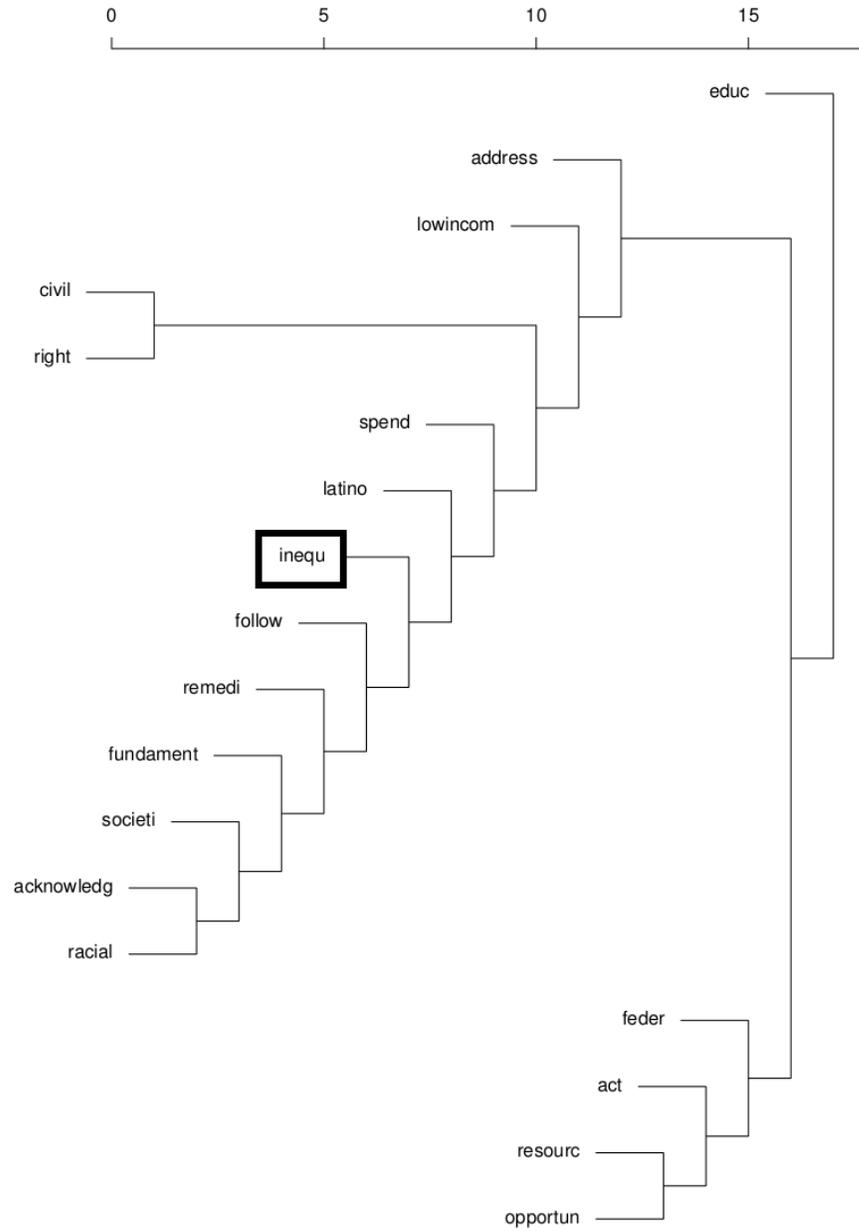


Figure D.23: Congressional Hearings - Dendrogram of “inequ”

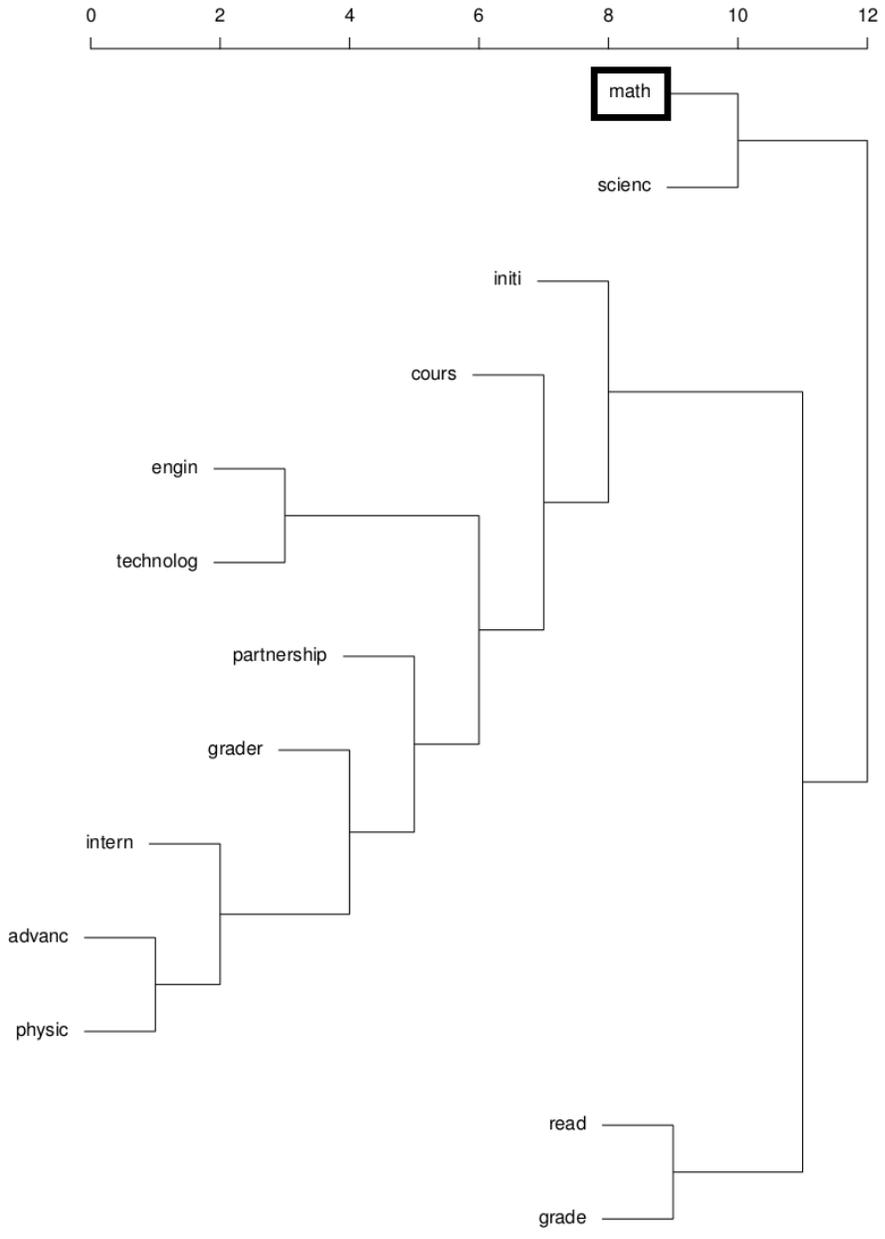


Figure D.24: Congressional Hearings - Dendrogram of “math”

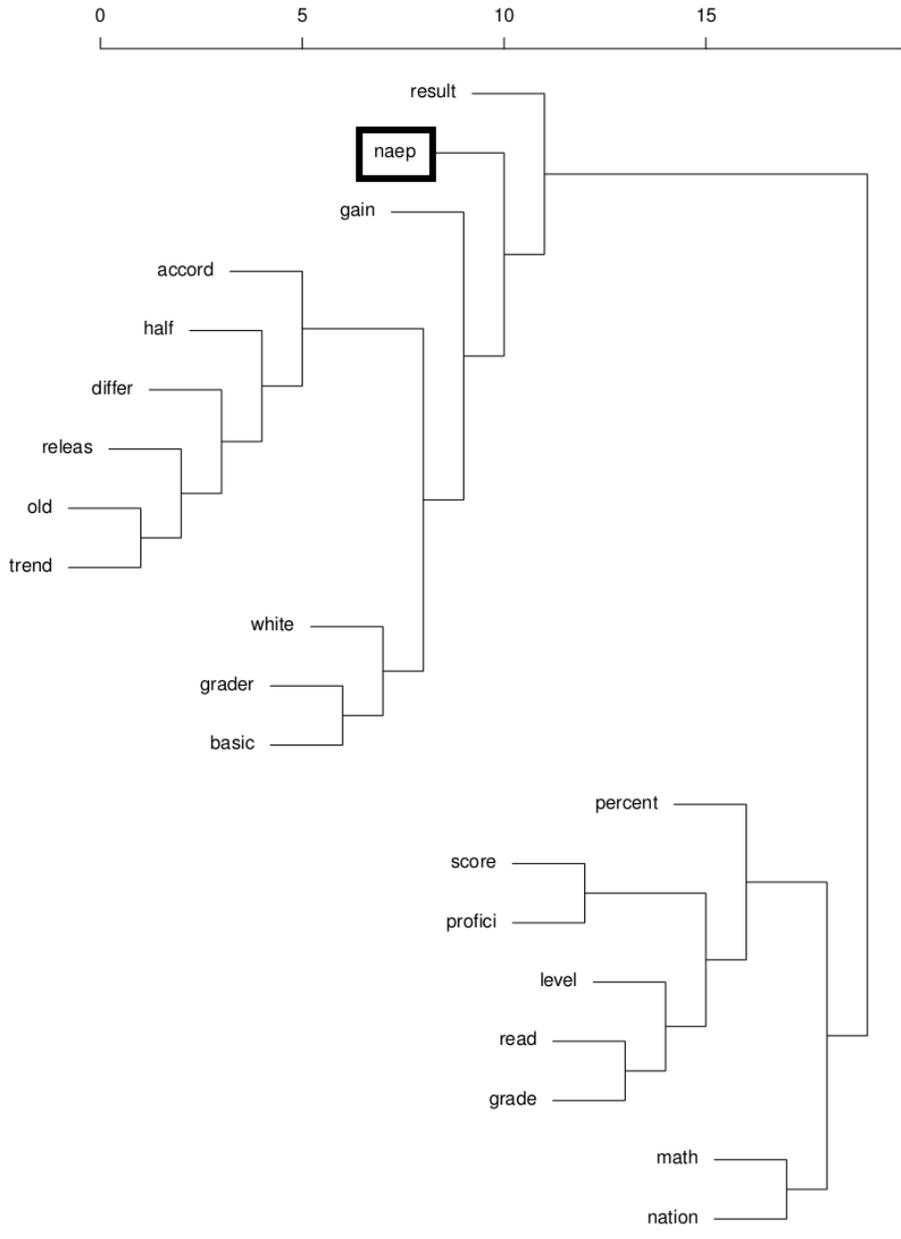


Figure D.25: Congressional Hearings - Dendrogram of “naep”

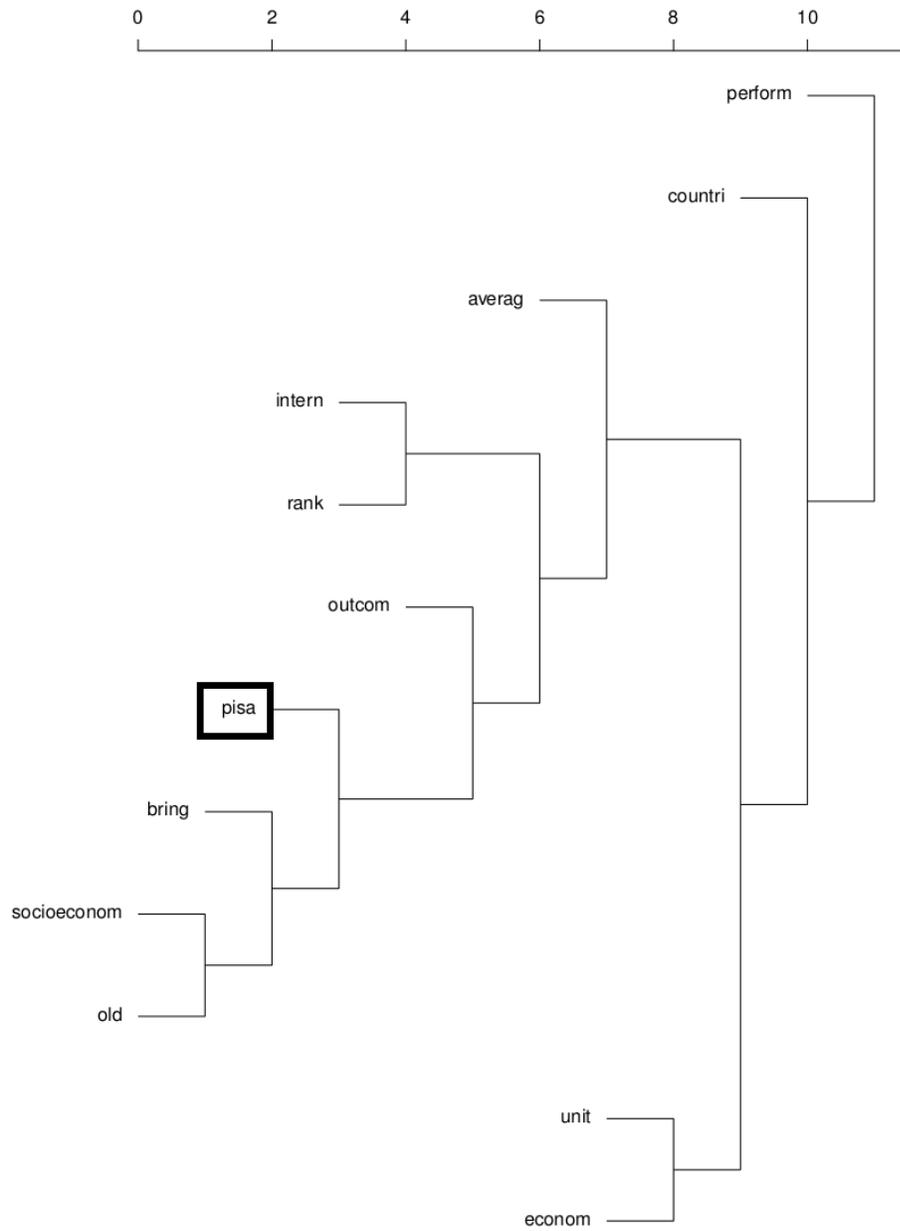


Figure D.26: Congressional Hearings - Dendrogram of “pisa”

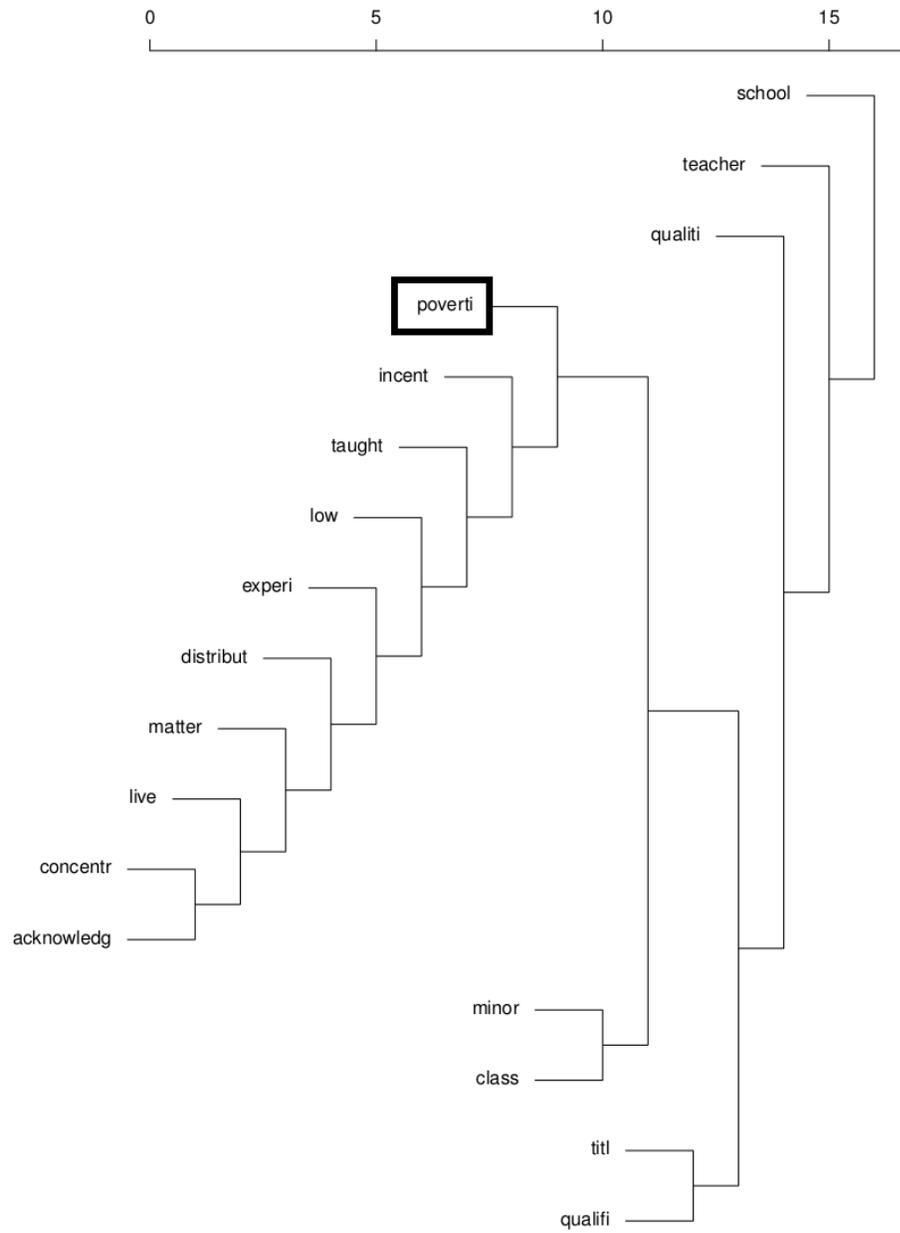


Figure D.27: Congressional Hearings - Dendrogram of “poverti”

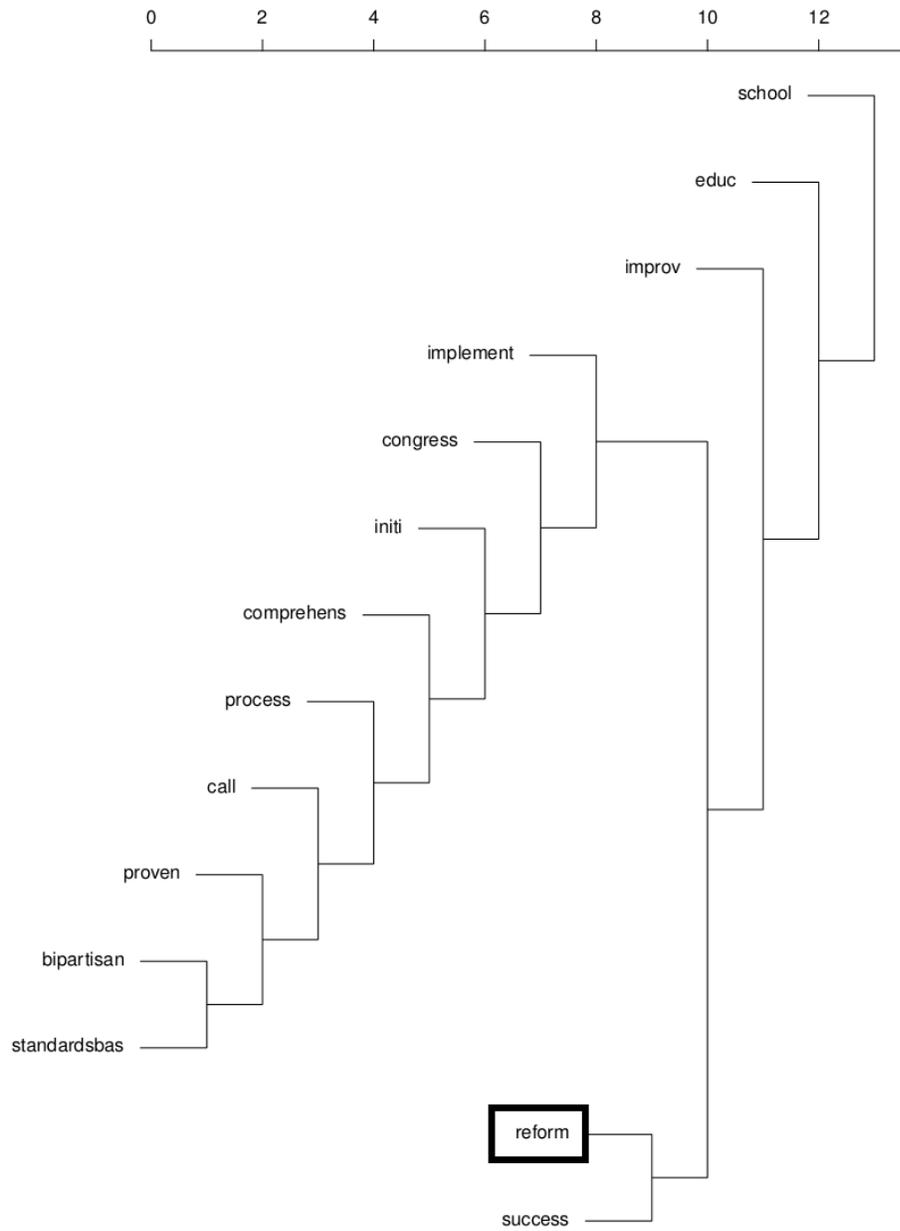


Figure D.28: Congressional Hearings - Dendrogram of “reform”

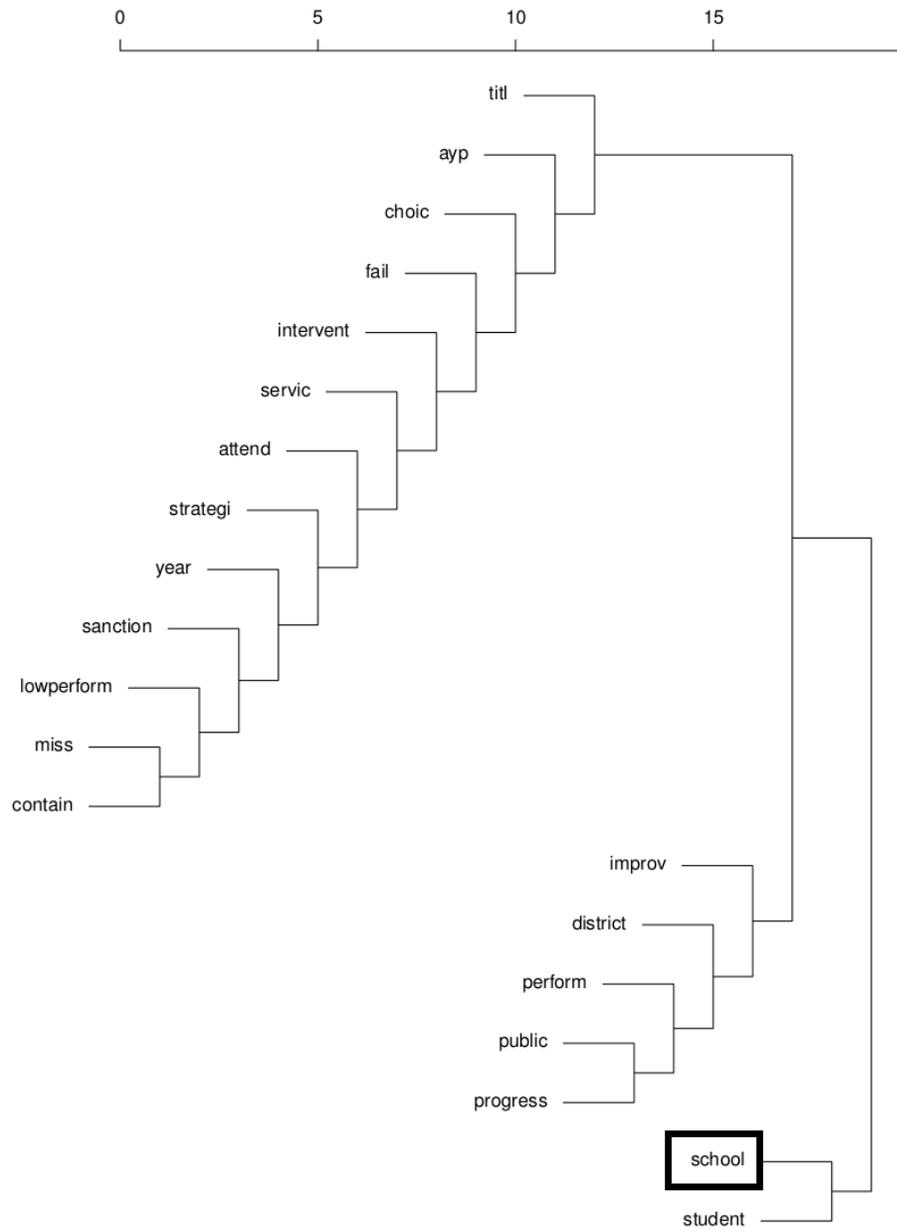


Figure D.29: Congressional Hearings - Dendrogram of "school"

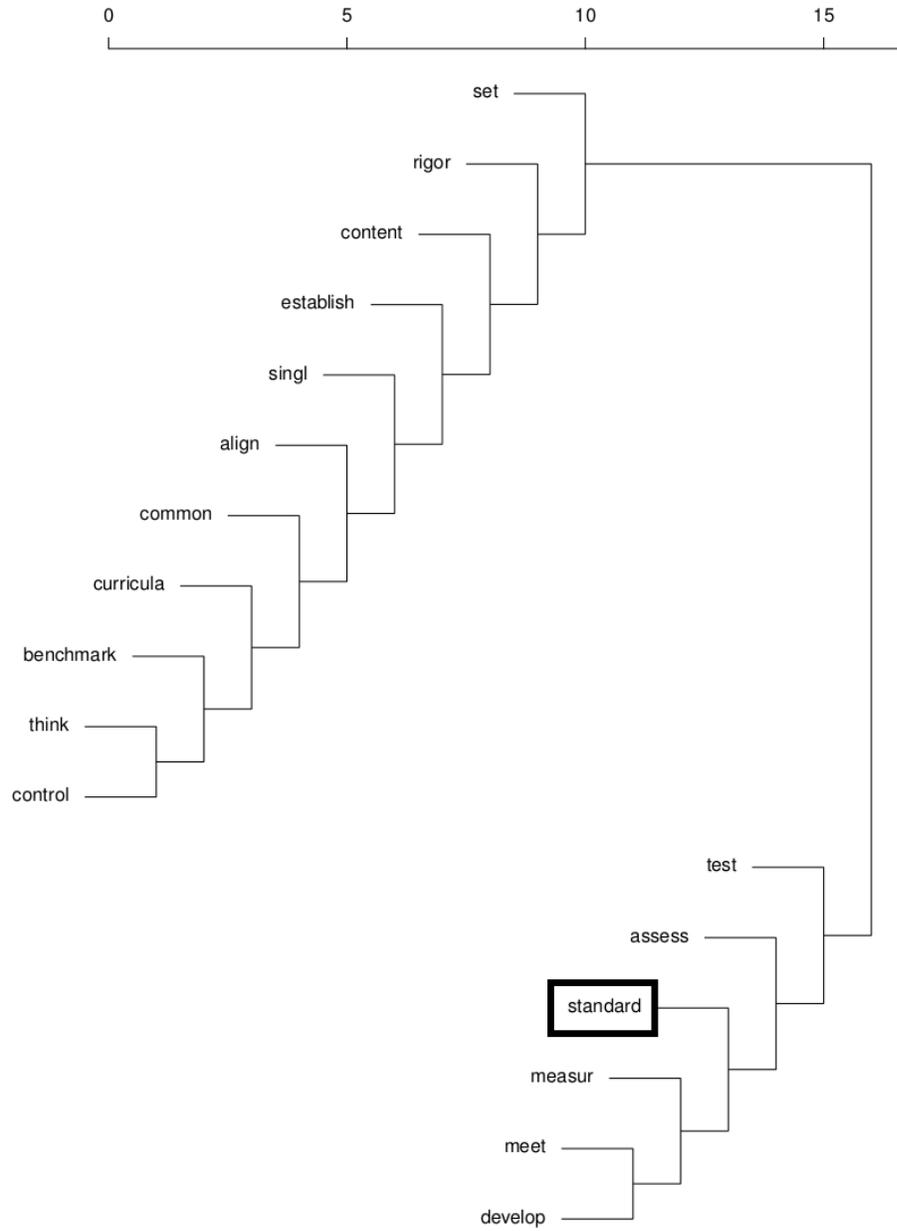


Figure D.30: Congressional Hearings - Dendrogram of “standard”

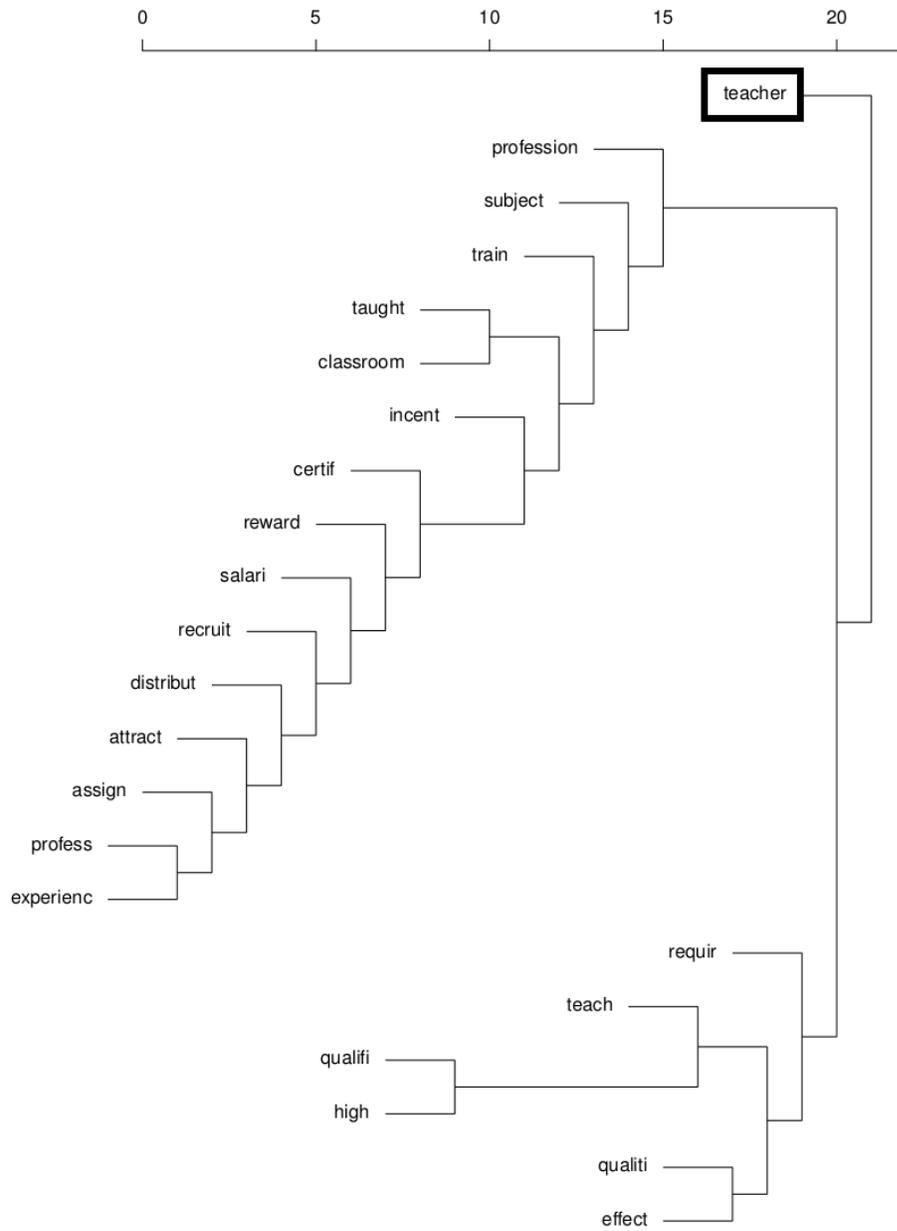


Figure D.31: Congressional Hearings - Dendrogram of “teacher”

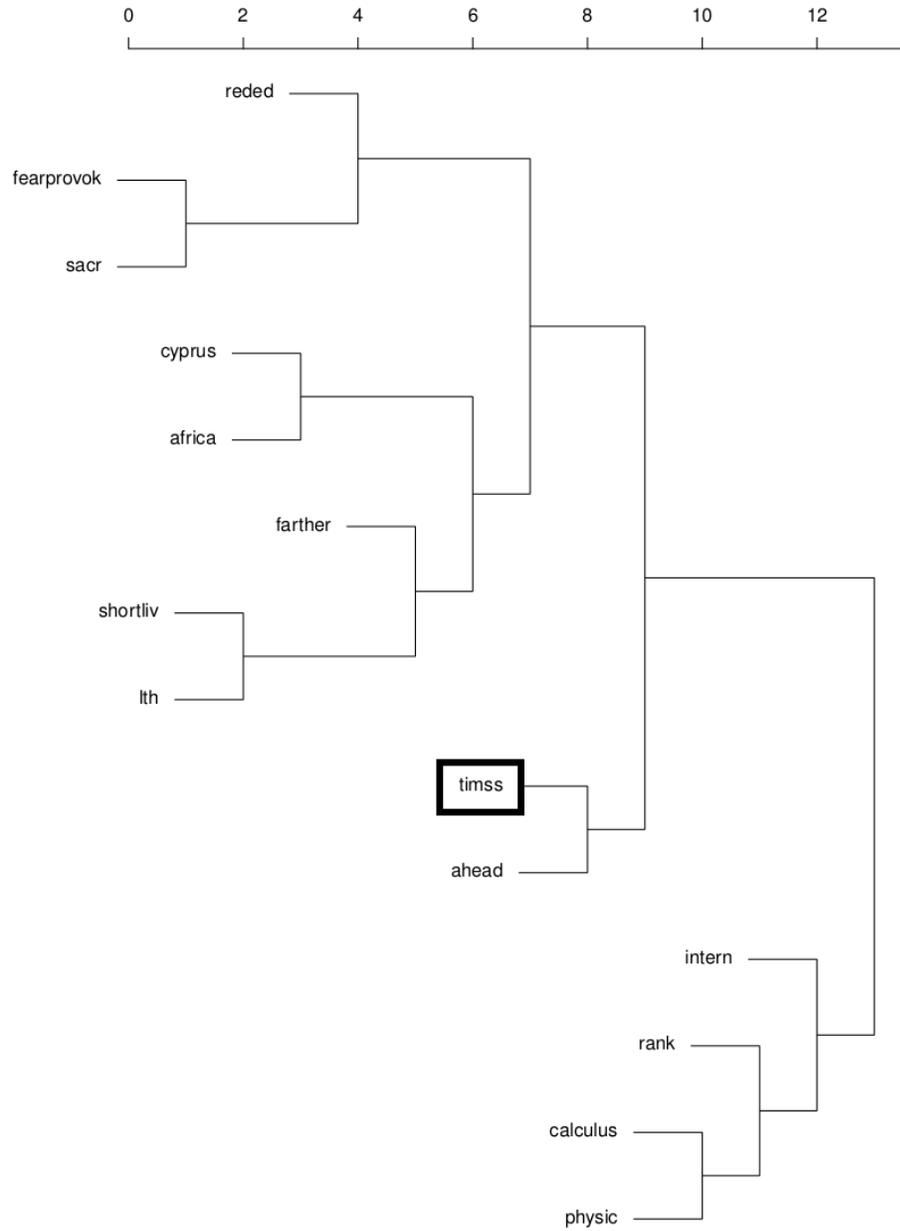


Figure D.32: Congressional Hearings - Dendrogram of “timss”