LITERACY RATES AND RACE IN THE 1930 HOUSTON CENSUS

An Undergraduate Research Scholars Thesis

by

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Submitted to Honors and Undergraduate Research
Texas A&M University
in partial fulfillment of the requirements for the designation as an

UNDERGRADUATE RESEARCH SCHOLAR

Approved by
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May 2015

Major: Sociology
History

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ABSTRACT

Literacy Rates and Race in the 1930 Houston Census. (May 2015)

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In this project, I will look at the literacy rates of Whites, Hispanics, and Blacks in Houston based on Census data from 1930. This data will allow me to draw conclusions about literacy and education based on race. In doing so, I hope to address the ramifications of race and subsequent inequality on the ability of individuals to obtain education and the ability to read. I intend to frame my research by addressing segregation and the unequal opportunities of whites and African Americans. I will also examine the literacy rates as they pertain to men and women, and I will break down the results further to examine race and sex at the same time. Education and the ability to read open doors for individuals, and those with better access to education will logically become more successful than those denied access. Examining the disparity in literacy rates and education between African Americans and whites in 1930s Houston allows us to draw conclusions about the broader relationship between people of color and whites. Unequal access to education and unequal rates of literacy account for inequality in every aspect of life, and the importance of education cannot be overstated.

ACKNOWLEDGEMENTS

I would like to thank Dr. Mark Fossett, my advisor and mentor throughout this project, for all of his advice, support, and encouragement.

CHAPTER I

INTRODUCTION

I will examine the relationship between literacy rates and race in 1930s Houston, Texas. I will also examine the relationship between literacy rates and sex. Literacy rates and education allow for access to better jobs and life experiences. Unequal access between races furthers the inequality perpetuated by a history of slavery and continued Jim Crow laws. In order to advance in society, one must learn to read. It seems to be a basic concept that many take for granted today, but its importance is undeniable.

Literature Review

Although multiple studies have been conducted in the last few decades on race and literacy or race and education, the 1930 Census has not been used to examine the relationship. The Integrated Public Use Microsample project at the University of Minnesota (Ruggles and colleagues 2010) has recently made detailed microdata from the 1930 census available, enabling researchers to conduct analyses of individual socio-demographic outcomes that previously were not possible. Using the census from 1930 will add a historical perspective to the relationship between race and literacy and will allow for the examination of questions about change over time and the effectiveness of policies to improve literacy.

Daphne W. Ntiri (2013) of Wayne State University researched race and adult literacy rates just last year. She cited a growing literacy crisis and used Critical Race Theory to explain disparities

between whites and blacks in literacy rates and education (Ntiri 2013). Ntiri (2013) argues that urbanization and suburbanization (and subsequent segregation) account for the gap in literacy and education between whites and blacks in America.

Segregation

Pat Rubio Goldsmith (2009) studied 10,827 students longitudinally beginning in 1988. He found that minority students who attended primary and secondary schools composed of primarily other minority students attained lower levels of education on average than more diverse schools or schools made up of mostly white students (Goldsmith 2009). The study demonstrates the negative effects of segregation on people of color. When minorities are clustered together in neighborhoods, schools become organized based on race. Goldsmith (2009) studied this phenomenon and discovered that the minorities who attended schools composed mostly of people of color had lower rates of educational attainment. There is a clear connection between race and education level. Vincent J. Roscigno (1998) also found a relationship between attending segregated schools and education level. Students who attended schools composed mostly of African Americans had lower grades and less chances of continuing their education (Roscigno 1998). Roscigno (1998) blamed de facto segregation for the lower levels of education attained by African American students. In doing so, he brought more attention to the ramifications of race on education.

Summary

Multiple researchers have studied segregation and education, although none have specifically used the 1930 Census data to look at the relationship. Some have applied theories of race

towards educational attainment, while others have argued segregation causes differing levels of attainment and literacy.

I will look at the literacy rates of whites and blacks in Houston based on Census data from 1930. This data will allow me to draw conclusions about literacy and education based on race in southern Texas at a specific point in time. This research will address the ramifications of race and subsequent inequality on the ability of individuals to obtain education and the ability to read. I intend to frame my research by addressing segregation and the unequal opportunities of whites and African Americans.

CHAPTER II

METHOD

Data

The data analyzed in this study is from the 1930 United States Census. The Census collects data from every family in every city in America. The data in this study specifically comes from Houston, Texas. This study will look at the data for race, sex, and literacy in 1930s Houston, Texas. Studying the effect of race and sex on literacy in 1930 will speak to segregation and unequal educational attainment between races and sexes.

Sample Selection

This study will utilize the information provided by the Houston Census. It will study African American, Hispanic, and White respondents. Studying the literacy rates of African American respondents and Hispanic respondents compared to White respondents will demonstrate the saliency of segregation and racism on literacy and education. This study will also address sex and its effects on literacy rates.

Variables

The variables studied are Literacy, Race, and Sex. Literacy measures whether or not the respondent can read, and thus speaks to educational attainment and larger issues of quality of life. The ability to read opens more opportunities for individuals and their families. If one race has lower levels of literacy, the outcome speaks to unjust inequality. Race measures the race of the respondent. This study will primarily focus on Blacks, Hispanics, and Whites. A difference in

literacy between African Americans and whites will allow me to draw conclusions about the effects of segregation and inequality. Sex measures if the respondent is male or female. Inequalities in literacy between males and females in general and by individual race will speak to broader patterns of inequality and intersectionality.

Method

I will use the Chi- Square Test to analyze the data in order to discern a relationship between race and literacy rates. The Chi- Square Test is used when the dependent variable is categorical. Literacy, the dependent variable, is categorical and therefore necessitates the use of the Chi-Square Test. The Chi- Square Test will determine if the variables (Race and Literacy, Sex and Literacy, and Race, Sex, and Literacy) are related to one another or not. It examines all possible combinations between the two variables with the goal of finding an association or relationship. Contingency tables map out all of the outcomes possible. One variable fills the rows, while the second fills the columns. The frequency of each combination is calculated. The contingency table indicates how each variable varies and how the two variables vary together. The goal is to show that the variables are varying together and are not just varying due to chance sampling error. The Chi- Square Test uses marginal totals to calculate expected frequencies. Comparing expected frequencies to observed frequencies works to demonstrate association. If the Chi-Square Test shows statistical significance, the variables are varying together in a systematic way rather than reflecting patters due to chance variation resulting from sampling error.

CHAPTER III

RESULTS

Summary Statistics

The original race variable accounted for White, Black/Negro, and Japanese. Of the 17,744 responses, 14,075 were White, 3,668 were Black, and 1 was Japanese. I manipulated the variable in order to include only White and Black and add Hispanic, making the sample size 17,743. Tabulation of the new variable shows 12,962 respondents to be White, 1,113 respondents to be Hispanic, and 3,668 to be Black. Of the 17,743 responses, 8,975 were male and 8,768 were female. The literacy variable accounts for 17,744 responses as well. Of the responses given, 3,225 claimed N/A, 14,012 claimed literate, and 507 claimed illiterate. In Table 1, I present the summary statistics of the data. I record the total number of respondents surveyed and I break down the total by race and gender between White, Hispanic, and Black in Table 1.1 and Men and Women in Table 1.2. Table 1.3 charts the data based on both sex and race. I then address the literacy rates of each statistic and calculate percentages. These preliminary statistics suggest that there appears to be a disparity between races and gender in literacy rates in 1930s Houston. The next step is to test the relationship between the variables using a Chi- Square Test.

Analysis

In Table 2, I present the results from Chi- Square Tests. I record the expected frequency of literate Whites and compare that statistic to the observed frequency. I also record the expected frequencies of literate Blacks and Hispanics and compare that statistic to the observed frequencies. I also analyze gender and literacy with expected and observed frequencies. Another table breaks down the numbers by both race and gender. Table 2.1 shows the Chi- Square results

of the Race and Literacy relationship. Table 2.2 shows the Chi- Square results of the Sex and Literacy relationship. Table 2.3 shows the Chi- Square results of the Sex, Race, and Literacy relationships. The data implies that Whites had higher literacy rates than they would have if there were no race effect, and Blacks and Hispanics had lower literacy rates than they would have if there were no race effect. There appears to be no significant connection between race and sex, but a statistically significant relationship does exist between race, sex, and literacy altogether.

The Chi- Square Test statistics demonstrate statistical significance. The test statistic for sex and literacy of 3.4419 did not prove to be statistically significant at any level. The test statistic for race and literacy of 961.4374 is statistically significant at the .001 level. The test statistic for sex, race, and literacy of 996.2501 is statistically significant at the .001 level as well. The data shows that there is a significant difference in literacy rates between Whites, Blacks, and Hispanics, which increases when gender is taken into account. Racial disparities exist when considering literacy rates in 1930s Houston. Including sex in the final Chi- Square Test makes a strong case for Intersectionality and the different experiences of racial groups based on gender.

When evaluating the difference between whites and blacks, the Chi- Square Test showed statistical significance, both when evaluating race and literacy and race, sex, and literacy. The statistical significance of the multiple tests used demonstrates the salience of race when considering literacy in 1930 in the South. This research shows that, proportionally, significantly more Whites than Blacks could read. A clear difference in 1930 literacy rates existed between Whites, Hispanics, and Blacks. Disparity persisted between the races in literacy rates, which

likely exacerbated other disparities between races in other aspects of life, like employment, income, or net worth.

CHAPTER IV

CONCLUSION

The Chi- Square Tests demonstrate statistically significant results in two of the three cases. Statistically significant results occurred when examining the relationship between race and literacy rates and the relationship between race, sex, and literacy rates. The only relationship to lack statistical significance was the relationship between sex and literacy rates alone. The results speak to the issue of Intersectionality, especially as the relationship between race, sex, and literacy rates yielded such statistically significant results. Race alone accounted for disparity in literacy rates between individuals. Race and sex work together to explain the disparity between individual literacy rates on an intersectional level. Different sexes of different races faced vastly different literacy rates, meaning that race and sex worked together to advantage some individuals (like White males) and disadvantage other individuals (like Hispanic and African American women).

The disparities found in literacy rates could explain disparities in other significant aspects of life, like economic income, employment, opportunities, and other life outcomes. The ability to read allows one to function at a higher level in society than an individual without the ability. Discerning which groups of people had the ability to read not only explains disparities in other aspects of life, but also demonstrates systemic and structural racism and intersectional inequality. If certain groups (White males in particular) have better access to education and literacy, they have advantages in every aspect of life over all other groups, White women and men and women of other races included.

Limitations of my study include the N/A variable of literacy. Not every person fit into either the "yes" or "no" categories for ability to read and write, so data could be skewed by the existence of the N/A option. The data was also self-reported. Enumerators asked the respondents face-to-face whether they could read and write in any language. Dishonesty or misrepresentation may have occurred. The literacy rate variable also does not measure level of literacy, beyond the ability to write more than one's name. Undoubtedly, some individuals contained far greater mastery of their language than others.

The 1930 census data could speak to issues of segregation. Further research should examine the spatial relationship between race and literacy rates. Perhaps certain neighborhoods, constituted by certain groups of people, have especially high or low literacy rates. This information could speak to de jure segregation of the first half of the 1900s and de facto segregation seen today.

Table 1.1 Summary Statistics: Race and Literacy

Race	N/A	Illiterate	Literate	n
White	2,282 (17.61%)	118 (0.91%)	10,562 (81.48%)	12,962
Hispanic	345 (31.00%)	146 (13.12%)	622 (55.88%)	1,113
Black	598 (16.30%)	243 (6.62%)	2,827 (77.07%)	3,668

Table 1.2 Summary Statistics: Sex and Literacy

Sex	N/A	Illiterate	Literate	n
Male	1,606 (17.89%)	240 (2.67%)	7,130 (79.43%)	8,975
Female	1,619 (18.46%)	267 (3.05%)	6,882 (78.49%)	8,768

Table 1.3 Summary Statistics: Sex, Race, and Literacy

Sex	N/A	Illiterate	Literate	n
White Male	1,125 (17.10%)	64 (0.97%)	5,391 (81.93%)	6,580
Hispanic Male	178 (29.28%)	66 (10.86%)	364 (59.87%)	608
Black Male	303 (16.96%)	110 (6.16%)	1,374 (76.89%)	1,787
White Female	1,157 (18.13%)	54 (0.85%)	5,171 (81.02%)	6,382
Hispanic Female	167 (33.07%)	80 (15.84%)	258 (51.09%)	505
Black Female	295 (15.68%)	133 (7.07%)	1,453 (77.25%)	1,881

Table 2.1: Chi- Square Test of Independence: Race and Literacy

Race	**Literacy**			
	N/A	**Illiterate**	**Literate**	**X^2**
White	2,282 (2,356.0)	118 (370.4)	10,562 (10,235.6)	961.4374**
Hispanic	345 (202.3)	146 (31.8)	622 (878.9)	
Black	598 (666.7)	243 (104.8)	2,827 (2,896.0)	

** = significant at the .001 level

Table 2.2: Chi- Square Test of Independence: Sex and Literacy

Sex	**Literacy**			
	N/A	**Illiterate**	**Literate**	**X^2**
Male	1,606 (1,631.4)	240 (256.5)	7,130 (7,088.1)	3.4419
Female	1,619 (1,593.6)	267 (250.5)	6,882 (6,923.9)	

Table 2.3: Chi- Square Test of Independence: Sex, Race, and Literacy

Sex	**Literacy**			
	N/A	**Illiterate**	**Literate**	**X^2**
White Male	1,125 (1,196.0)	64 (188.0)	5,391 (5,196.0)	996.2501**
Hispanic Male	178 (110.5)	66 (17.4)	364 (480.1)	
Black Male	303 (324.8)	110 (51.1)	1,374 (1,411.1)	
White Female	1,157 (1,160.0)	54 (182.4)	5,171 (5,039.6)	
Hispanic Female	167 (91.8)	80 (14.4)	258 (398.8)	
Black Female	295 (341.9)	133 (53.7)	1,453 (1,485.4)	

** = significant at the .001 level

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