RESIDENTIAL SEGREGATION OF CHINA'S MINORITY NATIONALITIES FROM THE HAN, 2000

A Thesis

by

XIAODAN DENG

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 2010

Major Subject: Sociology

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Approved by:

Chair of Committee,	Dudley L. Poston, Jr.
Committee Members,	Rogelio Saenz
	William Alex McIntosh
Head of Department,	Mark Fossett

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ABSTRACT

Residential Segregation of China's Minority Nationalities from the Han, 2000.

(December 2010)

Xiaodan Deng, B.S., Remin University of China

Chair of Advisory Committee: Dr. Dudley L. Poston, Jr.

Although a relatively large amount of literature dealing with the demography of the People's Republic of China has been published in recent decades, few sociologists and demographers have engaged in comparative studies of China's ethnic minority populations. In fact, one of the major problems associated with China's attempts at modernization today has been the uneven development of the Han majority, and its 55 different minority nationalities. This paper is an attempt to fill this void. I focus on the residential segregation of China's minority populations from the Han majority in 2000. I calculate dissimilarity indexes of the degree of residential segregation from the majority Han for each of the 55 minority groups. I conduct my analyses at both the provincial and county levels. I then analyze the variation in residential segregation with independent variables, measuring for each minority group its levels of socioeconomic and demographic development and women's status. Major contributions of my paper are advancing our understanding of the patterns of residential segregation of China's minority nationalities from the Han majority and rethinking some of the possible causes of ethnic conflict in China today.

ACKNOWLEDGEMENTS

This thesis was finally finished in the fall of 2010. It means a lot to me. I feel I am getting closer to my dream. I would like to express the deepest appreciation to my family, my professors, my colleagues and my friends. I am so lucky to be supported and loved by so many wonderful people.

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I would like to thank my committee members. To my advisor, Dr. Dudley Poston, you taught me demography and statistics; you showed me how to conduct my research; and you encouraged me to go conferences. Thanks for showing me how wonderful it is to be a demographer. I will always have passion for my research just like you. And a special thanks also goes to your wife, Pat Poston. Thanks for being so nice and supportive to me. Dr. Rogelio Saenz, thank you for all your help with this thesis. I learned a lot from the classes I took from you. Dr. William McIntosh, thank you for your incredible patience and support. Your help made my graduate school life much easier.

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Last, but not the least, I thank my great family: my parents, Yingying Deng and Lihe Deng, for giving me life, for educating me, for unconditional support and the encouragement to pursue my dream, even when the dream went beyond the boundaries of country and language; and for my parents and sister-in-law, Trinidad Morales Jr., Patricia Morales, and Elisa Morales, for giving me a warm and cute family in the U.S.

After I finished this thesis, my daughter, Patricia Shuxia(淑夏) Morales was born. She is the best gift in the world. I wish her a happy and healthy life.

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CHAPTER I

INTRODUCTION

In this chapter, I first introduce Chinese minorities, identification and culture. I next discuss the fast growth of minority population in China. Then, I discuss demographic compositions of the 55 minority groups in China. I focus on their age and sex structures and fertility levels. In the last section I focus specifically on geographic distribution and residential segregation of minority populations in China. And also, I talk about my personal interests in this chapter.

Minorities in the Context of China

All nationality groups in China, including the Han majority and the 55 minorities, are referred to as nationalities or "*minzu*" (民族). In Chinese, the term "*minzu*" (民族) is a concept referring to the presence of legal equality among all the groups and represents as well the fact that "all of China's nationalities are subordinate to a higher authority" (Heberer 1989, 12). Indeed some 200 years before Christ, Qinshihuang, the First Emperor of China, accomplished the historic mission of founding a centralized, unified state. This marked a great beginning. Since then, China's various nationalities have lived together in a unitary country. In this way, China's many nationalities have over long years lived together in close proximity.

This thesis follows the style of *American Sociological Review*.

As a result, according to the definition of race, the minority peoples in China today are not considered to be separate races. In Figure 1, we notice that Chinese minority people are not distinguished solely on the basis of physical or anthropometric criteria. In fact, their identification depends to a much greater degree upon cultural and linguistic differences that over time have been relatively persistent (Dreyer 1976; Fei 1981; Eberhard 1982; Poston and Shu 1987).

Figure 1: Chinese Minority People
Source: http://hi.baidu.com/gxs0702_/album/item/fa20637b9d514ace2f73b326.html

Indeed the most outstanding national feature distinguishing the nationalities in China is language. Generally speaking, people of the same nationality speak more or less the same language. And more than half of the nationalities have their own languages. Linguistically, most of the minority languages belong to the Han-Tibetan family. People speaking these languages comprise almost three-fourths of all the minorities; they live mainly in the southcentral and southwestern regions of the country. Furthermore, around one-fifth of the minority peoples speak languages of the Altai family; they live chiefly in the northwestern and northeastern regions. A few nationalities speak languages belonging to the South Asian or Indo-European families. A very few, such as the Hui, Manchu and She, use the Han language as their own language. Many of the nationalities in the Xinjiang region use the Uygur language (see Figure 2).

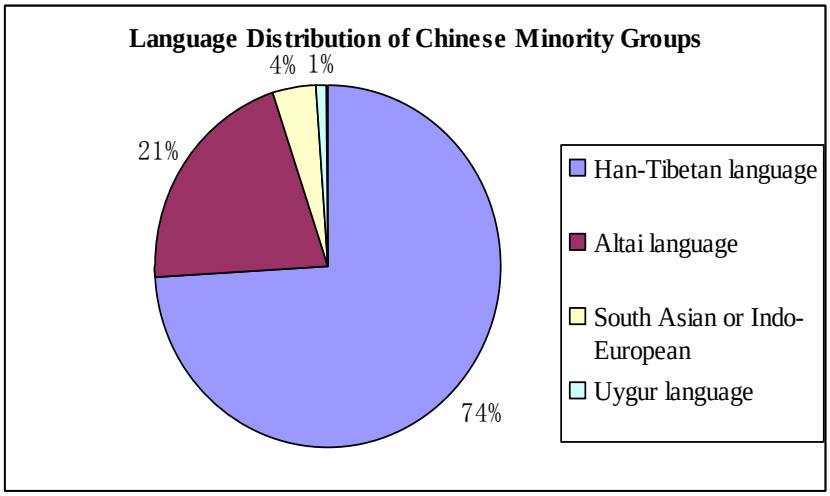

Figure 2: Language Distribution of Chinese Groups

Besides language, religion is another factor of variation among the different nationalities in China. The prevalent religions are as follows: Islam for the Hui, Uygur

and Kazak peoples; Lamaism for the Tibetan and Mongolian peoples; and Buddhism for the Dai and Bulang peoples. Quite a few nationalities worship Nature or ancestors and believe in gods and ghosts. Also Protestant and Catholic Christianity were brought to several nationalities one or two centuries ago by western missionaries.

The customs and habits of the minority groups also differ . Certain nationalities have various taboos because medical facilities are lacking. With some nationalities, there is an inequality between the sexes which has been in their customs and habits and have become apart of their marriage institution (Fei 1981).

It is clear that in China the actual identification of the minority population is difficult. Fei Hsiao Tung, a social anthropologist who received a doctoral degree in the late 1930s at the London School of Economics, has carried out extensive sociological and social anthropological research in China. He traveled widely throughout China, penetrating into the almost inaccessible mountains, and he visited remote villages to talk to people of various nationalities. His first wife accompanied him on an expedition to Guangxi soon after their wedding in 1935. She was drowned in a mountain torrent while trying to find help for her husband who had fallen into a pit which had been dug to trap wild animals. Essentially, as the result of Fei's and others' recommendations, the government has endeavored to distinguish many of the minority nationalities from the Han majority.

Population and Growth Rate

At present, the Chinese government has identified 56 nationalities including the Han majority. In addition, the government acknowledges two residual minority groups: the "unknown or unidentified nationalities" and "foreigners with Chinese citizenship". China's nationalities differ greatly in size. The Han are the most numerous – more numerous than all the rest put together. They constituted almost 92 percent of China's total population in 2000. All the rest combined to make up just over 8 percent (Economic & Development Department State Ethnic Affairs Commission, 2004). The small total percentage the minorities comprise of China's population is why they are referred to as minorities.

On the other hand, according to 2000 United States census data, for the year of 2000, Hispanics accounted for 12.5% of the U.S. population; African Americans accounted for 12.3%; Asians, 3.6%; and 2.4% of total U.S. population are multiracial. Obviously, the relative number of Chinese minority populations in China is much smaller than the relative number of American minorities in the U.S for the year of 2000 (Figure 3). However, the absolute number of the Chinese minorities, 106 million, greatly outnumbers the total population of all minority groups in the U.S. in 2000.

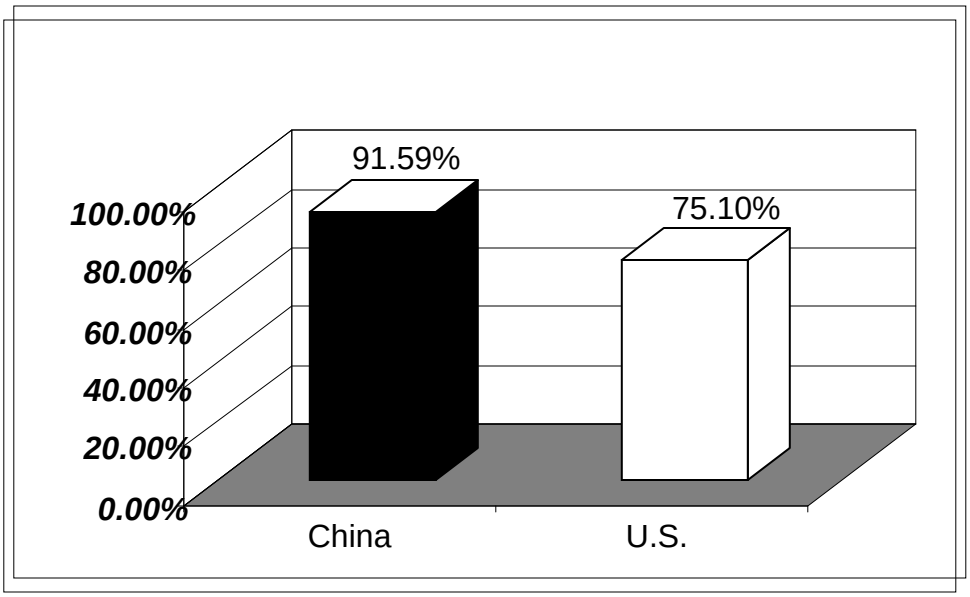

Figure 3: Percentage of Majority Population in China and the U.S. in 2000
Source: 2000 Chinese Census; 2000 United States Census

Actually, the Chinese minority population is larger than either the total population of Great Britain, France, Germany, or Italy. If the minorities of China were a single country, they would be the twelfth largest country in the world, outnumbered only by India, the United States, Indonesia, Brazil, Pakistan, Bangladesh, Nigeria, Russia, Japan, Mexico, and the Han population of China.

Meanwhile, China's minorities have increase very rapidly. The minority population in China was found to be 34.01 million in 1953 census which was the first time that China counted its minority population for several thousands of years. By 2000, the number reached 104 million, an increase of 2.07 times over that of 1953. On the other hand, the total population of China increased by 1.15 times on average, and the Han population was up by 1.10 times during this period. It seems that the growth rate of China's minority population has significantly exceeded the average growth rate of the

total population and of the Han population over the past 50 years. Indeed from 1953 to 2000 the net increase in China's minority population was 70.48 million. With this growth rate, the minority population could double in a period of only 43 years (Economic & Development Department State Ethnic Affairs Commission 2004). Considering its huge absolute number and its rapid growth rate, more attention should be paid to China's minority populations.

Demographic Composition

Among the 55 minority nationalities in 2000, their age structures differ greatly. In terms of the "child dependency ratio", which refers to the ratio of population aged 0-14 to the population aged 15-64, the highest ratio is found among the Lhoba, 65.00. This means that in 2000 among the Lhoba, there were 65 people under the age of 15 per 100 people aged 15 to 65. The index value was also 65 for the Menba, and slightly lower, 59.for the Tajik, 55 for the Bonan and 55 for the Kirgiz; seven other minority groups have child dependency ratios higher than 50.00. Usually, people aged 0-14 and above 65 are considered to be dependent, that is, they typically do not participate in the labor force and depend on the population aged 15-64, who are most often in the labor force, for their sustenance and survival. So among the above twelve minority groups, at least two adults are responsible for supporting one child under 15 years. On the other hand, the Korean child dependency ratio is only 20. Koreans are the only minority group in China with a child dependency ratio under 30.00; its ratio is even lower than the ratio of 31 of the Han majority.

When we turn attention to the aged dependency ratios, other minority groups attract major attention, such as the Jing and the She. Their aged dependency ratios are 11.12 and 10.99, and these are higher than the Han's 10.31. This means that there are more than ten old people aged 65 or above per every 100 persons aged 15-64 among the Jing and among the She. In addition, another 35 minority groups have aged dependency ratios higher than seven. In general, this is an indication that population aging has begun spread to more than half of China's minority groups. The lowest aged dependency ratios are found among the Oroqen, the Ewenki, the Kazakh, the Daur and the Tatar. All these minority groups have aged dependency ratios lower than 5.00. These low values are largely due to their higher fertility rates.

In addition, several nationalities deserve particular attention for their distinguished age and sex structures. The Kazakh are moving from a growing population to a declining population. The Korean minority group is encountering population aging because of its increasing number of older people, as well as the declining youth. And, the Yi has a relatively stable population.

Also, there is extensive diversity in fertility among the minorities of China. The "TFR" is a cross-sectional estimate of the number of births that a woman would have during her reproductive lifetime, i.e., between the ages of 15 and 49, if her childbearing in each of her reproductive years followed the age-specific fertility rates for a given period of time. The Korean nationality has the lowest TFR of all the minority groups, a TFR of 0.7. The Lhoba minority group has the highest TFR, a value of 2.74. This means that if a hypothetical woman was subjected to the age-specific fertility rates of the Lhoba

minority nationality in China in 2000, this woman at the end of her childbearing lifetime would have produced, on average, 2.7 children. In contrast, were this hypothetical woman to follow the fertility patterns of the Korean nationality in 2000 in China, she would produce 0.7 children.

As noted the TFR ranges from a low of 0.7 (Koreans) to a high of 2.74 (Lhoba). Eight minority groups have TFRs lower than the Han's TFR value of 1.18. The Manchu, the Mongolians, the Koreans, the Xibe, the Daur, the Jino, the Russians and the Menba all have TFRs below 1.18. As already noted, the lowest is that of the Koreans. Also, the Xibe, the Daur, the Russians and the Menba all have TFRs below. 0.9. Another seven have TFRs above the replacement level of 2.1, namely, the Buyi, the Dongxiang, the Shui, the Jing, the Drung, the Gaoshan and the Lhoba.

One of China's minority groups, the Dongxiang, has a fertility rate of 2.13, just above replacement level. The Dongxiang is the only Muslim minority population with replacement level fertility.

Geographic Distribution and Ethnic Segregation

In China, the minority peoples live over a vast area of the country, inhabiting around 50%- to 0% of China's total land area. However, they are mostly concentrated in the country's western half. China's famous Great Wall runs roughly from Beijing in the east to Gansu Province in northwestern China. If one were to draw a perpendicular line from the western extremity of the Great Wall in the upper part of Gansu Province south to the provincial boundaries of Sichuan, Yunnan and Tibet in southwestern China, inner

China would lie to the south of the Great wall and to the east of the drawn line. In this half of China lives about 95% of China's population, and most of them are Han. In the other half, live only one in twenty of China's people, and most of them are minorities. Also, there are a large number of minorities that reside in the southwestern provinces of Guangxi, Guizhou and Yunnan (see Figure 4).

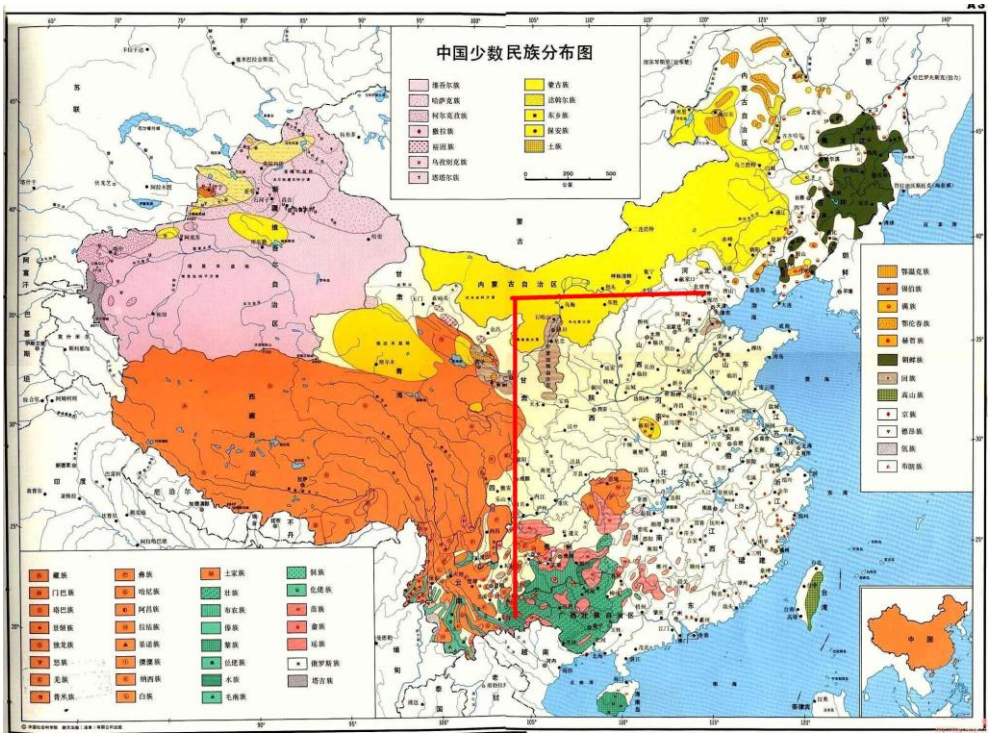

Figure 4: Distribution of Chinese Minority Population

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China's long borders are chiefly populated by minorities. Among them are the Gaoshan in Taiwan; the Li and Miao on Hainan Island in the south; in the northeast, the Koreans along the Tumen River, the Hezhe along the Wusuli River, the Ewenki and

Oroqen along the Heilongjinag River; the Mongolians in Inner Mongolia; the Kazak, Uygur and Kergez in Xinjiang; the Tibetans, Menba and Luoba in Tibet; the Lisu, Dulong, Jinpo, Va, Dai and Yi in Yunnan; and the Zhuang and Jing in Guangxi. Many of them live in key defense areas of China. Generation after generation, they have developed the border areas and have defended the country.

Due to the working of special historical factors, some minority groups are dispersed all over the country such as the Hui. Some of the Hui live in a compact community in the Ningxia area, but the rest are scattered all over China, in virtually all the big cities and even in Xinjiang and Tibet. However, most of the other minority groups are segregated in some provinces or counties.

Different Patterns of Residential Segregation: China and the U.S.

In the United States, ethnic segregation and the residential locations of the racial groups largely result from migration. Patterns of immigration to the country, and the length of time the groups have been in the U.S., both greatly influence the patterns of residential segregation of ethnic groups in the U.S. In "The Growth of the City," Ernest W. Burgess (1923), pointed out that immigrant groups tended to concentrate in segregated areas around the Central Business District (CBD) when first arriving in an American city, but they later tended to adopt American patterns of behavior and assumed high-status social positions; they would then move out of the center of the city, and then other new ethnic groups would move in.

However, patterns and processes of ethnic segregation are not always the same in different eras and in different countries. Unlike in the United States, the geographic locations of the minority populations in China have been to a significant degree invariant for centuries. Therefore the patterns of ethnic segregation in China are more associated with historical factors rather than with migration. For example, the locations of the majority Han today living in the Northeast, Northwest, and Southwest, undoubtedly are indeed a consequence of the expansion of the Han Chinese over the centuries. And in these areas, many ethnic groups have been absorbed into the Han majority. Other good examples are the Koreans and Uygurs in China. As one of the minority groups, most Koreans are concentrated in Northeastern China which is next to North Korea. During the Japanese occupation of Korea from 1905 to 1945, many Koreans came to China to seek refuge and finally settled in Northeastern China. Compared with the Koreans, the segregation of Uygur people in Xinjiang were more caused by China's own national wars and conquests. Beginning in the Han dynasty, Han Chinese fought for hegemony along the Yili and Tarim caravan routes through this region, but it was not until the Qing dynasty that the area was fully incorporated into the Chinese state. Since then, the Uygur have become one of the ethnic groups in China and have been living in Xingjiang for centuries.

Different Analyses of Residential Segregation: China and the U.S.

The study of the geographic distribution patterns of ethnic groups has long been of interest to demographers and sociologists in the U.S. Such interest extends back to the

early part of this century when sociologists at the University of Chicago mapped the residential patterns of ethnic groups in Chicago (Burgess 1923; Park 1926). Current research has continued the tradition of examining the residential patterns of ethnic groups in metropolitan areas (for a discussion of the history of such studies, see Massey 1985). And the data used to measure geographic segregation in this research are almost always based at the Census Tract or the Block level.

However, as Rogelio Saenz and Jaime Vinas (1990) argued in their paper, the emphasis on metropolitan areas led to a lack of information about the residential segregation patterns of American ethnic groups across larger areal units (e.g. states). They pointed out that previous research failed to show the full spectrum of the geographic dispersal of ethnic groups. Therefore in their study, they examined the geographic segregation patterns of Chicanos from Anglos across counties in the 50 United States using data from the 1980 census. But other than their paper, few other studies on residential segregation in the U.S. focus on the population distributions across counties.

When examining residential segregation of minority populations in China, we cannot just focus on metropolitan communities. Because, first of all, there are not available data about population distributions at Census Tract or Block level within metropolitan areas. Secondly, given the unique pattern of ethnic segregation in China, from the research just focusing on metropolitan areas, we cannot get enough information about the distribution patterns of the minority populations across the whole country. Indeed, for ethnic studies in China, it is much more important to know the extent to

which minority and majority groups share similar physical environments in areas more diverse than metropolitan areas. Therefore, instead of studying ethnic segregation in several metropolitan areas, in this thesis I will conduct my analysis about the residential segregation of each of the Chinese minorities from the majority Han at provincial and county levels across the whole country.

Personal Interests

At last, I have a great interest in studying the minority populations of China because of my personal experiences. I was born in Yunnan province which is in the Hengduan mountain areas in southwest China where there are high mountains and deep valleys. During China's long history, various nationalities moved into this area because of their conflicts with Han. They tended to live in their own compact communities and to develop their own characteristic features in isolation. In 2000, Yunnan province had fifty-one minority groups residing in the province. And according to the census data in the same year, Yunnan's minority population accounted for about one-third of the total minority population of China.

Although my family is Han, we have many minority friends. My father is a geologist. He has traveled through almost the whole of Yunnan province. He has always said that during his hard trips in the high mountains, the minority people living there always helped him. He likes his minority friends. When I was eight years old, I visited are mote Yi village with my father. We had a wonderful time there. Yi people are so nice. They are good at singing and drinking. At night, we danced in a circle holding a

torch to celebrate the traditional Yi festival, Torch Festival. My mother has worked in an ethnic University in Dali in the Bai Autonomous Prefecture of Yunnan; thus most of her students were members of the Bai nationality. She thinks they are smart and have a gift for business. And one of my best friends is a member of the Dai nationality. We went to the same high school, and she has many physical similarities of my features, so she and I look the same. But her family name is very special. Actually in her hometown, all females have the same family name. She is a very good dancer, and her favorite dance is the Dai's traditional dance, "The Peacock Dance".

Following this introductory chapter, Chapter II reviews previous and current studies dealing with residential segregation. In Chapter II, I discuss the concept and the measurement of residential segregation and the basic sociological proposition positing a relationship between physical distance and social distance. I also introduce studies about residential segregation in the U.S., China, and several other countries. Chapter III focuses on the distribution of the ethnic minorities among China's provincial administrative regions, including the provinces and ethnic autonomous regions, and also provides a detailed description of the values of the D-index for each of the minority groups among province-level administrative regions and among county-level administrative regions in the year of 2000. Chapter IV discusses three theoretical models which are used in examining the research questions. I end the chapter by discussing the results of multiple regression equations. Finally, Chapter V offers the conclusion, implications, and future direction for my research.

CHAPTER II

LITERATURE REVIEW

In this chapter, I first discuss the concept of residential segregation and its measurement. I next the basic sociological proposition positing a relationship between physical distance and social distance. Then, I discuss some of the research on residential segregation that has been undertaken internationally; although most of the research has been conducted in the United States, some studies have been conducted elsewhere. I focus on research in several countries. In the last section I focus specifically on studies of residential segregation in China.

Residential Segregation

Residential segregation is a topic of considerable interest to sociologists and demographers. For decades, researchers have used several alternative indices to measure the degree of residential segregation. Duncan and Duncan's (1955) work showed that all of the various indices could be regarded as functions of a single geometrical construct, the "segregation curve." They also demonstrated that the index of dissimilarity contained almost all the information of other prevailing indices. Ten years later, Taeuber and Taeuber (1965) used the dissimilarity index in their major work on *residential segregation and neighborhood change*. After that, the dissimilarity index served as the standard measurement to measure spatial segregation between social groups.

But in the 1970s, a torrent of papers began to appear that considered a variety of definitions and measures of segregation once again. For example, Cortese and his colleagues (1976) were concerned with the limitations of the dissimilarity index. In their article, they explored the difficulties in the use and interpretation of the index of dissimilarity, demonstrated some of the systematic biases resulting from these inadequacies, and provided a mathematical refinement that overcomes some of the major problems inherent in the use of the index. All the while, the debate on the definitions and measures of segregation continued.

Undoubtedly, before Massey and Denton (1988) published their major paper, there was some theoretical and methodological disarray in the field of segregation studies. Researchers seldom agreed about which measure of segregation is best to use and under what circumstances. After decades of lively debate, however, Massy and Denton ushered in a long era of peace by designating residential segregation as a multidimensional phenomenon varying along five distinct axes of measurement. In their article, twenty indices of segregation were surveyed and related conceptually to one of the five main dimensions. They used data from a large set of U.S. metropolitan areas, the indices were intercorrelated and factor analyzed. Based on the factor analysis and other information, one index was chosen to represent each of the five dimensions, and these selections were confirmed with a principal components factor analysis. Massey and Denton recommended adopting these five indices as standard indicators in future studies of segregation.

According to Massey and Denton's research, residential segregation is a global construct that subsumes five underlying dimensions of measurement, each corresponding to a different aspect of spatial variation: evenness, exposure, concentration, centralization, and clustering. Among them, evenne**ss** refers to the differential distribution of two social groups among areal units in a city. A minority group is said to be segregated if it is unevenly distributed over areal units (Blau 1977). Although the debate on the relative merits of the dissimilarity index (D Index) has continued since 1976, Massey and Denton still stated it was the most useful measure of evenness. "It has been the mainstay of segregation research for thirty years, and its further use would preserve continuity in the research literature" (Massey and Denton, 1988). Another important dimension is exposure which refers to the degree of potential contact, or the possibility of interaction, between minority and majority group members within geographic areas of a city. And the P* indices (exposure index) are the preferred measures of exposure since they have the simple and straightforward interpretations.

Therefore, according to Massey and Denton, dissimilarity index and exposure index are two main indices used to measure evenness and exposure. However, the Dissimilarity index focuses more on the differential distribution of two groups among areal units. Therefore, if a minority group is unevenly distributed from the majority group over the areal units, the group is said to be segregated in terms of evenness. But indices of exposure measure the extent to which minority and majority members physically confront one another by virtue of sharing a common residential area. So rather than measuring segregation as departure from some abstract ideal of "evenness,"

as in the Dissimilarity index, exposure indices measure the actual experience of segregation as felt by the average minority or majority member. And also indices of exposure are conceptually distinct from indices of evenness because the former depend on the relative size of the groups being compared, while the latter do not.

Ethnic Segregation and the Consequences

According to the theorists of human ecology, differences in the degree of residential segregation between groups are the result of differences in socioeconomic variables such as income, education, and occupation (Burgess, 1923; Park, 1926). In fact, several researchers have reported significant correlations between ethnic segregation and various indicators of socioeconomic status. It seems the hypothesis is amply confirmed by many studies of ethnic segregation.

Many earlier studies documented the persistent and high degree of black residential segregation in U.S. metropolitan areas (Duncan and Duncan, 1955; Farley, 1977; Sorensen, Taeuber, and Hollingsworth, 1975; Taeuber and Taeuber, 1965). Later, Massey and Denton's research (1989) demonstrated that, not only are blacks more segregated, they are also likely to be segregated on all five dimensions simultaneously. A couple of studies of black segregation also illustrated that the black population's high level of segregation is problematic because it isolates blacks from amenities, opportunities, and resources that affect social and economic well-being (Logan, 1978; Schneider and Logan, 1982).

Recently, lots of attention has focused on Hispanic segregation. Like the black population, the Hispanic population represents a large, highly visible urban minority with a history of discrimination and socioeconomic exploitation. Using 1960 census data, Grebler and his colleagues (1970) presented evidence to suggest an aggregate-level correlation between economic factors and Spanish-Anglo segregation across thirty-five southwestern cities. Kantrowitz (1973), however, found that among Puerto Ricans in the New York metropolitan area, segregation was unaffected by social class. And Massey's study (1979) revealed a marked dissimilarity between patterns of black and Hispanic segregation; the high degree of segregation between blacks and whites cannot be accounted for by socioeconomic factors alone. In contrast, patterns of Spanish-white segregation are very highly related to social class.

Over 1980-2000 period, ethnic segregation in the United States is being accompanied by great integration. But Iceland's study (2004) indicates that segregation has been decreasing, mainly due to declines in African American segregation. While at the same time, there was little change or even slight increases in Asian and Hispanic segregation. For Hispanics and Asians, it was the growth in Hispanic and Asian and Pacific Islander populations, respectively, that were associated with increases in segregation, suggesting that this population growth likely buttressed ethnic enclaves.

Research in Other Countries

It is clear that ethnic residential segregation is not limited to the U.S. Actually studies have been carried out in other countries. A. Gordon Darroch and Wilfred G.

Marston (1971) employed census data for Toronto in 1961 to determine the patterns of residential segregation in Canada. In their article, data were used to generate the "expected" patterns of segregation based on differences in education, occupation, and income composition between various groups. But SES differences by themselves accounted for only relatively small proportions of the ethnic residential segregation in all cases. Therefore, they argued that the process of increasing socioeconomic similarity between ethnic groups to decrease residential segregation between them could not be directly examined from the data. Vivian Z. Klaff (1973) carried out a study of ethnic residential segregation in the three largest cities in Israel. Despite the different demographic, topographical and functional characteristics of the three cities, fairly similar patterns of ethnic segregation were found in the final analysis. Also the patterns of ethnic segregation were then related to the SES of sub-quarters to determine the nature of the internal structure of the cities. Aside from these, many other studies on ethnic residential segregation have been conducted in different countries by Jones (1969) in Melbourne, Australia; Warwick (1966) in Singapore; Musil (1968) in Prague, Czechoslovakia; and Mehta (1968) in Poona, India. More recently, Edward E. Telles (1992) examined residential segregation by skin color in 35 of the largest metropolitan areas in Brazil, using census tract data from the 1980 Brazilian census. And the final results show that in Brazil's metropolitan areas, white-black dissimilarity is the highest, followed by brown-black and then white-brown dissimilarity. It is important to study residential segregation in Brazil because Brazil's African origin population is the second largest in the world only after Nigeria's. Unlike the United States, Brazil has had no race

based laws that encourage residential segregation since Abolition in 1888, yet segregation by skin color is prevalent. In his study, Telles argued that there should be more studies about racial residential segregation outside of the United States.

Chinese Minority Studies

Chinese demographers have devoted considerable attention to investigating the population of China's minority populations. For instance, Emily Hannum (1998) explored rising occupational stratification by ethnicity in the Xinjiang Autonomous Region. Their analyses of census data from 1982 to 1990 pointed to educational disadvantages faced by the minority groups in China. Pyong Min (1992) demonstrated that compared to Korean Japanese, Koreans in China have maintained high levels of ethnic autonomy and positive ethnic identity. Also there are some studies on residential situations of specific Chinese minority groups. Rong Ma (1991) suggested that there is to a certain extent both residential and school segregation between Han and Tibetans in Lhasa. Ethnic residential segregation exists among both permanent and temporary residents.

However aside from these studies, there has been no systematic attempt to study the 55 minority groups, and most current work lacks standardization in concepts or methodology, so the findings are not directly comparable from one group to the next. On the other hand, non-Chinese scholars have used Western theories and standard measurements to study China's minority population. Using data from the 1982 census of China, Dudley L. Poston and Jing Shu (1987) have developed socioeconomic and

compositional variables for each of several minority groups on characteristics dealing with age, education and literacy, fertility, occupation and industry, and geographic differentiation. They use the D index to measure the degree of difference between the Han and the minority group in their patterns of residential distribution across provinces of China. Their results revealed that most of the minorities have very high levels of residential differentiation from the Han, and there is considerable variability in the index. For example, the Hui nationality are the least segregated from the Han, while the Bai and the Hani are the most segregated.

In another research paper several years ago by Poston and Micklin (1994), they calculated segregation scores for the 55 minority groups using data from the 1982 census. Their results reveal that in 1982, almost 97 percent of the minority peoples, on average, would have to move to other provinces for their minority group residential distributions across the provinces of China to be the same as that of the Han majority. At that time, the Hui minority was the least segregated from the Han, and the Tajik group was the most segregated from the Han.

In another paper by Poston, he determined the extent to which age heaping and digit preference were present among the minority population of China in 2000 (Poston, 2004). He found that a group or subgroup's proclivity to prefer or not prefer ages with certain terminal digits is not random or idiosyncratic, but tends to be associated with the group's position of privilege in the society.

To sum up, my study attempts to fill a gap in the field of residential segregation of China's 55 minority groups. Based on what we know about the possible causes and

potential consequences of racial and ethnic segregation in the U.S., it might be interesting to see if similar patterns exist in China in the year 2000. Are those Chinese minority groups who are the most residentially segregated from the majority Han also the least advanced in regards to socioeconomic and demographic characteristics? Is there any evidence suggesting that more developed minority groups experience lower levels of segregation in China?

In light of the previous literature, I propose three general hypotheses which this chapter intends to investigate, all for the year 2000 in China: First, highly residentially segregated minority groups should be characterized by lower socioeconomic development compared to less residentially segregated groups. Second, minority women from highly segregated minority groups should have lower social status than minority women from less segregated minority groups. Finally, highly segregated minority groups are more likely to have traditional demographic characteristics than less segregated groups. I will be using the **socioeconomic model**, the **women's status model**, and the **demographic model** to test these three general ideas. I will discuss the three models in Chapter IV.

CHAPTER III

ETHNIC DISTRIBUTION AND RESIDENTIAL SEGREGATION IN CHINA

In this chapter, I first discuss the concept of residential segregation, and then the calculation of the dissimilarity index (the D-index), a popular index of residential segregation. Then, I will discuss the 2000 Chinese census data. In the section of this chapter titled "Provincial Level," I will focus on the distribution of the ethnic minorities among China's provincial administrative regions, including the provinces and ethnic autonomous regions. I will provide a detail description of the values of D-index for each of the minority groups among province-level administrative regions in the year of 2000. At the end of this chapter, I will discuss ethnic distribution and residential segregation of the ethnic minorities at a lower level of geography, namely, among China's county-level administrative units.

Index of Dissimilarity

Previous studies of ethnic spatial distribution in China have limited themselves to mapping minorities' distribution patterns. Little work has been undertaken to analyze the residential segregation of the Chinese minority populations in a systematic fashion. As mentioned previously, one of the more common measures of residential segregation is the index of dissimilarity (D-index), which is defined as:

$$D=1/2\sum(Mi/M-Hi/H)$$

where Mi and Hi are the numbers of minority and Han persons living in areal unit i, and M and H are the total number of minority and Han persons, respectively, in the population of China. The absolute differences between Mi/M and Hi/H are summed over all the areal units, and one-half of the sum of these differences is obtained. This calculation is performed for every one of China's 55 minority populations. The resulting value of the D-index for any one minority group, when multiplied by 100, represents the percentage amount of persons in that minority that would need to move to certain other residential areas in order to for them to have the same residential distributions with the Han majority over the whole country. In this thesis chapter I will calculate D-indexes for each minority, compared to the Han, using province-level data, and then using county-level data.

The value of the dissimilarity index ranges from 0, indicating perfectly even residential distribution of the minority with the Han, to 100, indicating perfectly uneven residential distributions of the two groups. That is to say, the higher the value of the index, the more uneven the minority's residential distribution from the Han; therefore, the higher the value of the D-index, the greater its degree of residential segregation from the Han.

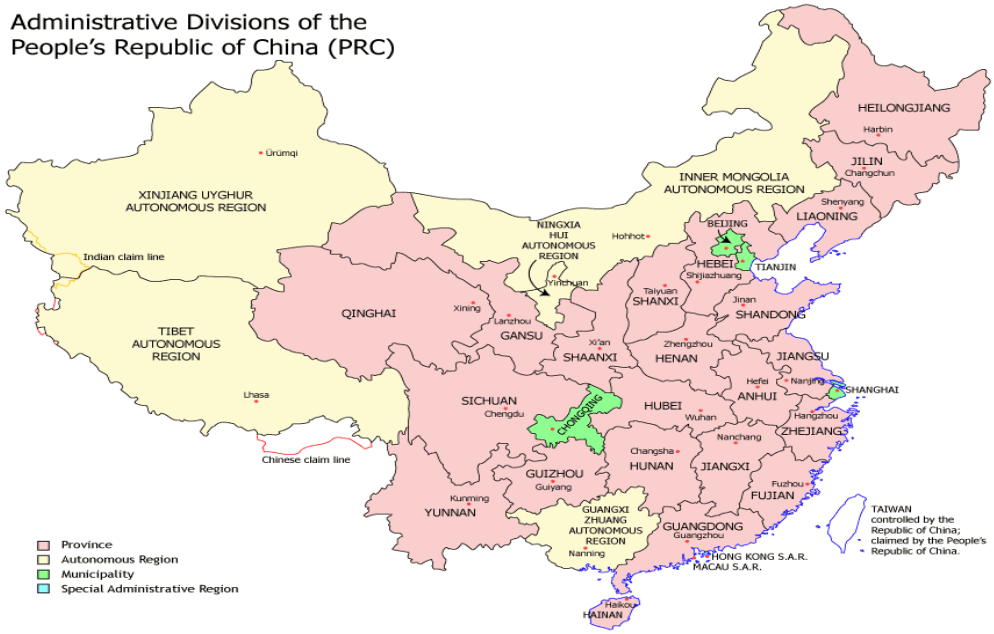
Data

All the data used in this paper are from the 2000 Census of China. The 2000 Census was the fifth national population census conducted in China and the largest of its kind in Chinese history. It was carried out on November 1, 2000 by the Population

Census Office under the State Council and National Bureau of Statistics of China. It enumerated people in all the different administrative regions; census data were obtained for the following characteristics of the population: sex, age, nationality, education, age, employment, industry and occupation, migration, marriage, recent birth and housing.

The 2000 Census provides data at both the provincial and county levels. At the provincial level, China is divided into 31 administrative regions, consisting of 22 provinces, 5 autonomous regions, 4 independent municipalities, and 2 special administrative regions (see Map1). “Province” is the most common province-level division. A standard provincial government is usually led by a provincial committee, headed by a secretary. An “autonomous area” refers to an administrative province-type unit inhabited by a large number of persons of a particular minority ethnic group; it is governed by its own local government, and the governor of the autonomous region is appointed from the respective minority ethnic group. Next, an “independent municipality” is a very large city that is directly under the Chinese government, with status equal to that of a province. The four independent municipalities of Beijing, Shanghai, Tianjin, and Chongqing have their own local governments and enjoy a political status comparable to the 22 actual provinces. The comparable entity in the United States is Washington, D.C. In addition, there are two special administrative regions (SARs), namely, Hong Kong and Macau. Each has a governmental chief executive as head of the government and a codified constitution know as the Basic Law, which provides the regions with a high degree of autonomy, a separate political system, and a capitalist economy under the principle of "one country, two systems," as proposed

by Deng Xiaoping. Hong Kong became an SAR in 1997; Macau became an SAR in 1999. Census data for the two special administrative regions were not directly a part of the 2000 census. Map1 shows us all the province-level divisions in China.



Map1: Province-Level Administrative Divisions of China, 2000
Source: Image: China administrative. png

Ethnic Distribution and Residential Segregation: The Provincial Level

As previously stated, the five autonomous regions of China were established partly to recognize the residential dominance of certain ethnic minorities in the areas; thus, the names of those five autonomous regions reflect the dominance of certain ethnic groups. The names of these five autonomous areas are as follows: the Inner Mongolia Autonomous Region (dominated by Mongolians), the Xinjiang Uygur Autonomous Region (dominated by Uygur people), the Guangxi Zhuang Autonomous Region

(dominated by Zhuang people), the Ningxia Hui Autonomous Region (dominated by the Hui minority population), and the Tibet Autonomous Region (dominated by Tibetans). From Map1, it is clear that most of the autonomous regions are located in the western half of China and on its borders. All the autonomous regions are small in terms of total population size except Guangxi, the largest of all of the autonomous regions. However, the percentages of the dominant minority population in each autonomous region are relatively high. Figure 1 shows the population distributions of the five autonomous regions. In 2000 in China, 93% of the population of Tibet were Tibetans; 45% of the population in Xinjing were Uygur; 32% of the population of Guangxi were Zhuang; and 17% of the population of Inner Mongolia were Mongolians. Undoubtedly, there are persons from many other minority populations residing in the autonomous regions, especially the larger minorities. And also, astonishingly, we find that in some of the autonomous regions, the Han people are not in the majority. The Han are a very small group (6%) in Tibet, and the Han comprise less than half (41%) of the population in Xinjiang (Figure 5).

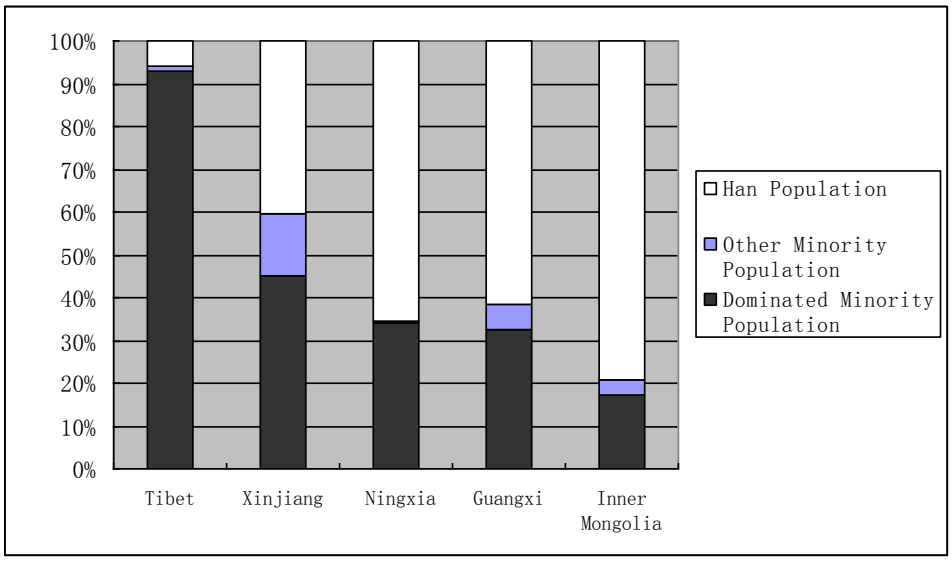


Figure 5: Distribution of Populations in the Five Autonomous Regions in China, 2000

Next, let us look in more detail at the five dominant minority groups, the Uygur, the Zhuang, the Mongolians, the Hui, and the Tibetans. Figure 6 gives us an idea about the population distribution of these five minority groups in their autonomous regions and in the other provinces in China. Generally speaking, most of them are concentrated in their own autonomous areas. Specifically, in 2000, among all the province-level administrative regions (except Hong Kong and Macau), about 99% of Uygur people are living in Xinjiang; 88% of Zhuang people live in Guangxi; 69% of Mongolians live in Inner Mongolia; 45% of Titans in Tibet; and 19% of Hui in Ningxia.

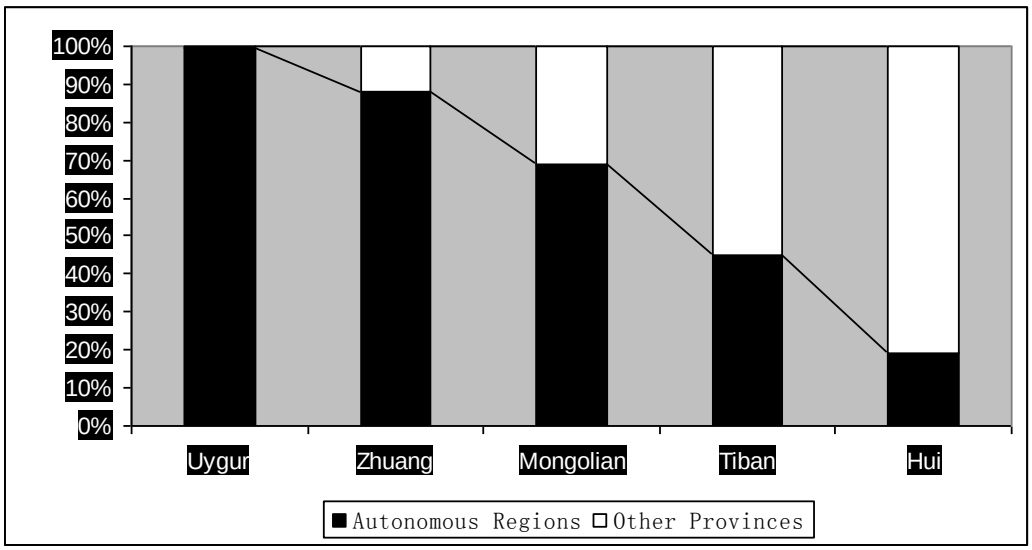


Figure 6: Geographic Distributions of the Five Dominated Minority Groups in China, 2000

On the other hand, the relative minority population sizes are small in the 22 provinces and in the 4 independent municipalities. According to data from the 2000 Census, the average percentage of minority populations in the provinces in is about 9%. Among them, only 6 provinces are more than 10% minorities; while 7 provinces have less than 1% minority population. However, there are still three western provinces with relatively large proportions of minorities (Figure 7). They are Qinghai (46%), Guizhou (36%), and Yunnan (33%). Among the 4 independent municipalities, the percentages of minorities are much lower. For example, in 2000 in Shanghai, only 0.6% of the population is minority.

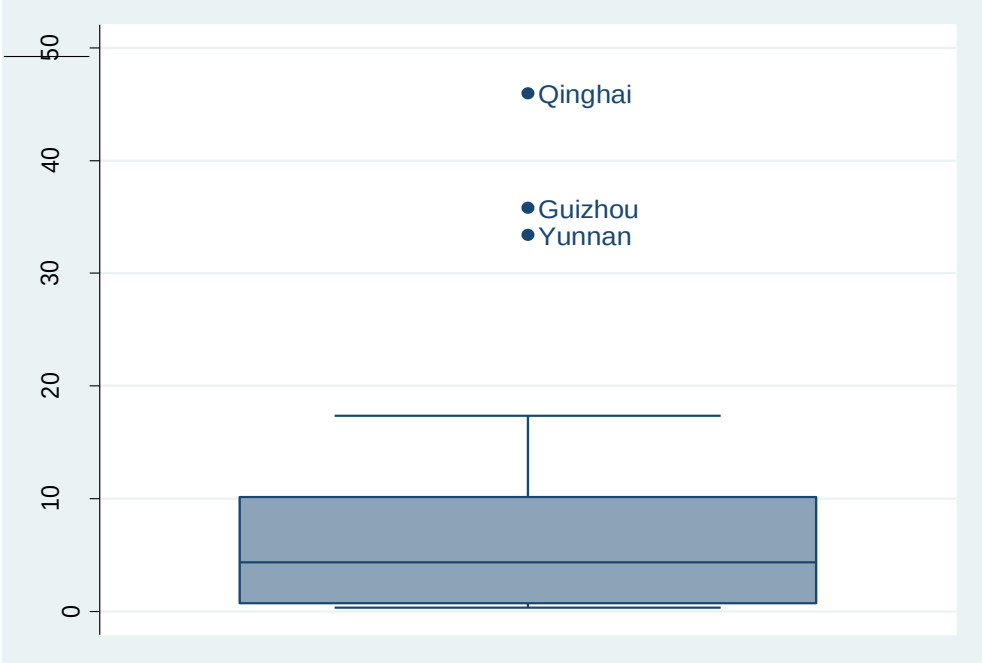


Figure 7: Box Plot of Percentages of Minority Population for the 22 Provinces

The 2000 Census data allow us to look at the distribution of the Chinese minority populations among all province-level administrative regions (except Hong Kong and Macau). We see that, they are not evenly distributed. A large number of minorities is concentrated in the autonomous regions and several western provinces. In other provinces and independent municipalities, there are very small proportions of minorities. I next calculate the D-index for each of the 55 minority groups comparing their distributions with the distributions of the Han across the province-level administrative regions.

Appendix Table A1 shows the values of the D-index for each of the 55 minority groups among the province-level administrative regions in the year of 2000, and Table 1

presents descriptive information. The data in these tables illustrate that minority populations are not evenly distributed with the Han population across all the province-level administrative regions. There is a sizable amount of residential segregation of the minorities from the majority Han in China in the year of 2000.

***Table 1*:**
Mean, Stand Deviation, and Minimum and Maximum Scores:
D-index of 55 Minority Groups vs. Majority Population at Province Level, China, 2000

Variable	Mean	Std. Dev.	Minimum	Maximum
Indexes of Dissimilarity				
Province Level	**89.39%**	10.46	**38.52%** (Gaoshan)	**98.91%** (Kazak)

Table 1 shows that, the average value of the D-index for the 55 minority groups is 89.39%. According to the definition of D-index, we can interpret the value as the average percentage of minority peoples who would have to move to certain other province-level administrative regions in order for them to have the exactly same residential distribution as the Han population. That is to say, in 2000 in China, almost 90 % of minority populations, on average, would have to change their residential locations. The values of the D-index range from a low of 39% for Gaoshan to a high of 99 % for Kazak. In 2000, slightly more than one-third (39%) of the Gaoshan people would need to move to certain other province-level areas for them to have a perfectly even residential distribution across the country with the majority Han. In contrast, in order to have the same distribution with the Han, almost all the Kazak people (99%) would need

to move to certain other areas. In other words, the Kazak population has an almost perfectly uneven distribution with Han population at the provincial level. Usually, scholars dealing with residential segregation use a benchmark value of 30% as the threshold for a meaningful level of residential segregation (Alba and Nee 2003). Based on this threshold, we can conclude that in 2000 in China, all 55 minority groups, including the Gaoshan, are highly and significantly segregated from the majority Han.

Specifically, among the 55 minority groups, three of them have a D-index value above 98%, which are considered to be extremely high segregation scores. The top three groups are the Kazak (98.9%), the Uyghur (98.7%), and the Kirgiz (98.1%). All of them are Muslim groups concentrated in Northwestern China. Their languages belong to the Turkic language family. Two minority groups have a D-index value below 55%. They are the Hui (52.7%) and the Gaoshan (38.5%). Previous studies show that Hui people, unlike most other Muslim groups, are scattered all over China in virtually all the big cities, even in Xinjiang and Tibet. Their communities exist nearly everywhere around the country. Most Hui are similar culturally to Han Chinese with the exception that they are Muslims. Since many excel at business, sometimes people refer to them as “Chinese Jews.” We should also pay attention to the Gaoshan people. Actually, most Gaoshan people live in Taiwan. Only a small number of them are in mainland China. Since the 2000 Chinese Census does not have any information about Taiwan, there are only 4,461 Gaoshan people in total in my minority data-set. I believe their small population size could be a reason for the low D-index value for the Gaoshan people. For the rest of the minority groups, three of them have D-index values between 70% and 80%; 14 groups

have D-indices between 80% and 90%; and 32 groups have D-indices above 90% but below 98%.

Research shows that, ethnic residential segregation at the provincial level has been decreasing in China. Poston and Micklin (1993) calculated D-index values for each of the 55 minority groups using 1982 census data. Results revealed that the minority populations of China in 1982 were more segregated than in 2000. Using the 1982 data, almost 97 percent of the minority peoples, on average, would have to move to other province-level administrative regions for their minority group residential distributions to be the same as that of the Han majority. In 1982, the Hui minority was the least segregated from the Han, and the Tajik was the most segregated from the Han.

Figure 8 shows this decrease by comparing the mean value of the D-index for the combined minority population for 1982 and 2000. The value drops from 96.9% in 1982 to 89.4% in 2000. Clearly, in 2000, the Chinese minority groups were less segregated from the Han majority when compared with the situation 20 years ago. However, based on the 30% threshold, they are still considered as highly segregated in 2000 from the Han.

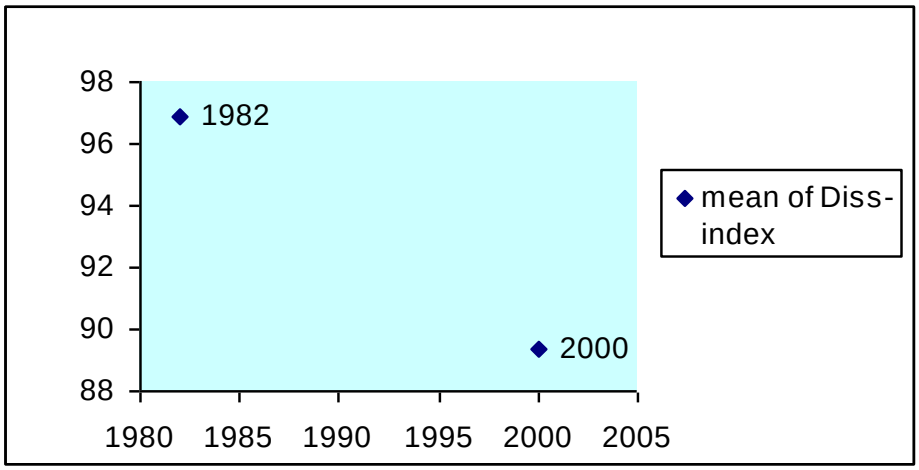


Figure 8: Change of Mean D-index from 1982 to 2000 in China

Ethnic Distribution and Residential Segregation: County Level

It is clear that there is ethnic segregation at the provincial level in China. However, we should also notice that many ethnic groups are highly concentrated in just a number of counties within a province or across provincial boundaries. Thus, analyses based solely on provincial data may not be able to precisely capture the spatial distribution of minority groups or effectively measure ethnic segregation for each group. Therefore, I also use county-level data in this thesis. The Chinese Government collected population data at the county-level during the 2000 census. Using these data, I calculated D-index values for the 55 minority groups again. Appendix Table A2 shows the values for each of the minority groups across all counties in China in the year of 2000, and Table 2 presents descriptive information. In general, the county-level analysis of ethnic segregation based on 2000 data is consistent with my previous provincial-level results. However, it appears that the 55 minority groups are more segregated at the county level

than at the provincial level. On average, about 94% of minority people have to move to other counties in China in order to have the same residential distribution as the majority Han. There is more segregation at the county level than at the provincial level (89%). Also, at the county level the most segregated group is still Kazak, but the least segregated group is the Hui, as compared to Gaoshan at the province level (Table 2 and Figure 9).

***Table 2*:**
Mean, Stand Deviation, and Minimum and Maximum Scores:
D-index of 55 Minority Groups V.S. Majority Population at County Level, China, 2000

Variable	Mean	Std. Dev.	Minimum	Maximum
Indexes of Dissimilarity				
County Level	**94.08%**	5.72	**68.56%** (Hui)	**99.24%** (Kazak)

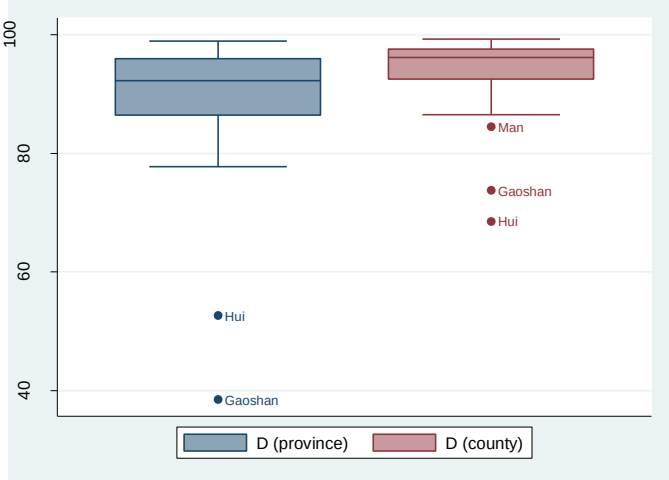


Figure 9: Box Plot of D-index at Province Level and County Level for 55 Minority Groups of China, 2000

Conclusion

In summary, 2000 Chinese Census data show that in 2000 in China, the minority populations are not evenly distributed across the country. A large number of them are concentrated in the autonomous regions and western parts of China. In order to assess the residential segregation patterns of the Chinese minority groups, I calculated the D-index for each of the 55 minority groups comparing their residential distributions with the distribution of the Han majority. The indices were calculated both at the provincial level and the county level. At the provincial level, results show that compared with similar analyses conducted with 1982 census data, the Chinese minority groups were less segregated from the Han majority in 2000 than in 1982. However, based on the standard 30% threshold level often used to assess the magnitude of the values of the D-index, the minorities in 2000 were still considered as being highly segregated in 2000 from the Han at the provincial level. A similar pattern was found in the county-level analysis, though it appears that the 55 minority groups are more segregated at the county level than at the provincial level.

Based on what we know about ethnic segregation in China now, it might be interesting to see if the levels of residential segregation are related to certain socioeconomic and demographic characteristics of the groups. Are those minority groups who are the most residentially segregated from the majority Han also the least advanced in socioeconomic and demographic characteristics? So in the next chapter, I will focus on the analyses of the relationship between residential segregation and the social demographic characteristics of the Chinese minorities.

CHAPTER IV

RESIDENTIAL SEGREGATION AND SOCIAL DIFFERENTIATION AMONG CHINA'S MINORITY NATIONALITIES

In this chapter I present my general hypotheses. Then, I discuss three theoretical models to be used in examining the research questions: the **socioeconomic model**, the **women's status model**, and the **demographic model**. For each model I define one index to represent the model. I end the chapter by discussing the results of the regressions I conduct to test the hypotheses and to see which hypotheses find support in my statistical analyses.

As one of the most important concepts in sociology and human ecology, residential segregation not only refers to the spatial or physical distance between two social groups, residential segregation is also associated with the social distance between social groups. In fact, the literature suggests a positive association between residential segregation and socioeconomic differentiation, meaning the greater the degree of residential segregation of one group from another, the greater the differentiation between the groups in socioeconomic structure. This relationship between physical distance and social distance largely occurs because of the relative socioeconomic homogeneity of the areas in which people live. Groups that live close to one another tend to be similar in socioeconomic and demographic characteristics. Therefore, when studying ethnic segregation, we expect to find minority groups who live close to the majority are more similar to the majority, while the minority groups who are geographically distant from

the majority are different from the majority in socioeconomic and demographic characteristics. Hence, the greater the degree of residential segregation of a minority group from the majority, the less developed the minority group will be. Here "less developed" is used to refer to a group having a low level of social development and characterized by a traditional demographic situation.

From the assimilationist perspective, ethnic and minority differences should decrease over time as the majority and minority groups come to interact freely in the wider community. However, if the majority and minority groups are physically distant from one another, their differences may well not change and may even increase over time. This is why a minority population's high level of segregation in a city or in a country is problematic: it isolates the minority population from amenities, opportunities, and resources that affect social and economic well-being.

As I mentioned, the research question for this thesis is: are those Chinese minority groups who are the most residentially segregated from the majority Han also the least advanced in regards to socioeconomic and demographic characteristics? Is there any evidence suggesting that more developed minority groups experience lower levels of segregation in China?

And my three main hypotheses are: First, highly residentially segregated minority groups should be characterized by lower socioeconomic development compared to less residentially segregated groups. Second, minority women from highly segregated minority groups should have lower social status than minority women from less segregated minority groups. Finally, highly segregated minority groups are more

likely to have traditional demographic characteristics than less segregated groups. I will be using the **socioeconomic model**, the **women's status model**, and the **demographic model** to test these three general ideas by making index for each of the model. They are the **socioeconomic index**, **women's status index**, and **demographic index**. And then I will look at the relationship between these three indices and the values of D-index for the 55 Chinese minority groups at provincial and county level.

Socioeconomic Model

The purpose of this model is to examine the relationship between residential segregation and socioeconomic development among the 55 minority groups of China (Table 3). Three variables are used to measure socioeconomic status of minority groups in the model: *"Percentage with no education"* and "*Percentage in farming"* and *"Percentage rural."* All of the variables are measured as percentages of the total population for each minority group.

***Table 3*:**
Mean, Stand Deviation, and Minimum and Maximum Scores:
Variables for the "*Socioeconomic Model"*

Variable	Mean	Std. Dev.	Minimum	Maximum
Variables				
Percentage with No Education	16。02%	13。82	2。53% (Tartar)	57。96% (Dongxiang)
Percentage in Farming	76.00%	18.54	21.19% (Russian)	94.96% (Lisu)
Percentage Rural	73.84%	18.23	18.64% (Russian)	95.66% (Dongxiang)

(1) Educational Attainment

During China's transition to a market economy, education played a crucial role in the determination of income and occupational attainment. In this model I would like to examine the relationship between residential segregation and ethnic disparities in schooling. One of the variables, *"Percentage with no education,"* will be used to measure educational disparities among minority groups. Specifically, this variable refers to the percentage of the total population with no education. Table 3 shows that in 2000 16% of the minority populations, on average, may be classified as having no education. In contrast, only 7% of the Han majority people are categorized as having education. Although economic development and policies aimed at promoting minority education have increased access to formal education in China since 1949, it seems that China's minorities have remained behind the Han majority with regard to this indicator of education.

Also, the values of *"Percentage with no education"* vary from 2.5% to 58% among the 55 minority groups of China (see Table 3). It may be interesting to know if this educational difference is related to the degree of residential segregation of the minority groups from the majority Han. In fact, vast ethnic segregation in China means many minority groups are segregated from the Han majority, particularly in the poorer interior regions of China. Today, children from many minority ethnic groups are facing infrastructure barriers associated with living in remote areas, including poor educational and transportation facilities.

Taken together, the evidence leads to the following educational attainment

hypothesis: among the 55 minority groups of China in 2000, the degree of the *"Percentage with no education"* will be positively associated with residential segregation. That is, minority groups with larger percentages of *no education* will be more residentially segregated from the majority Han.

(2) Occupational Attainment

Minorities in China have historically faced obstacles to occupational attainment, including geographic remoteness, poverty, and cultural and language barriers. Therefore, compared to the majority Han, minorities have often been disadvantaged in occupational attainment. For example, there are more leaders and professionals, relatively speaking, among the majority than among the minorities groups. Similarly, there are higher percentages of minorities represented in the non-professional farming occupation relative to the majority. Current policies promoting economic growth across China and policies designed to promote development in minority regions both suggest the possibility of improved occupational opportunities for minorities. I will use *"Percentage in farming,"* which measures the percentage of the total population involving in farming, as an indicator of occupational status in the model. The descriptive data in Table 1 indicate that 76% of the minority populations, on average, were found in farming in 2000. Compared with the 65 % of the majority Han involved in farming in 2000, minorities were more concentrated in farming occupations.

Also, occupational opportunities were not equally available to all 55 minority groups. For example, the data in Table 1 shows that the Lisu had 95% of its population

involved in farming population in 2000, but the Russians only had 2% in farming. Part of the reason is because geographic disadvantages disproportionately affect occupational resources available to the 55 minority groups of China. For groups highly segregated from the majority and residing in remote and poor areas of China, it is hard to be engaged in any job aside from farming.

Overall, my hypothesis for occupational attainment is: among the 55 minority groups of China in 2000, *"Percentage in farming"* will be positively associated with residential segregation. Specifically, minority groups with larger percentages of population involved in farming will be more residentially segregated from the Han majority.

(3) Rural Population

The study of the socioeconomic structure of ethnicities in China is a complicated endeavor given the diversity of China's minorities in regards to language, culture, and geographic location. Most of time, ethnic stratification is greatly affected by rural-urban differentiation. In fact, the minority populations represent a highly disproportionate share of China's rural population (Figure 10). Although the causal direction between residence and educational or occupational attainment remains ambiguous, schools and nonfarm jobs are more plentiful in the urbanized and the more developed areas. Hence, growing regional and urban-rural disparities have placed most Chinese minorities at a disadvantage; they are segregated in remote, rural regions of China. On the contrary, the large proportion of the Han population residing in urban areas is associated with

educational and occupational advantages due to better developed educational and/or industrial infrastructures in cities, compared to rural regions.

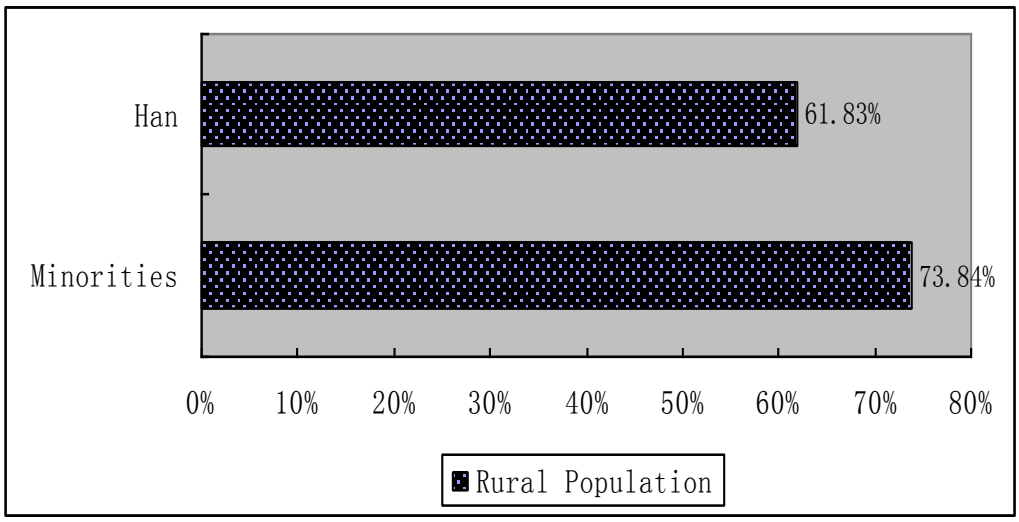


Figure 10: Percentages of Rural Population of the Majority and the Minorities in China, 2000

Because of the urban-rural disparities, I believe it is necessary to control for the urban-rural differentiation in this model when testing the effects of educational and occupational attainment on residential segregation of Chinese minorities. The variable *"Percentage rural"* refers to the percentage of the total population, who lives in rural area for each Chinese minority group. Specifically, I assume that among the 55 minority groups of China in the year of 2000, *"Percentage rural"* will be positively associated with residential segregation. Minority groups with large percentages of people living in rural areas will be more residentially segregated from the majority Han.

(4) Socioeconomic Index

Clearly, three of the variables in the mode, *"Percentage with no education,"* "*Percentage in farming,"* and *"Percentage rural,"* are hanging together as a whole to reflect the same conceptual domain, socioeconomic status of the 55 minority groups in China. Hence, I create one index named the **socioeconomic index** for the model by adding together the standard scores of the three variables. And from the three specific hypotheses, we notice that the three variables have the positive relationships with residential segregation of minorities in China. Therefore, I have evidence to believe that the **socioeconomic index** is also positively correlated with residential segregation. That is to say, a high socioeconomic index indicates a low socioeconomic level. And I assume, among the 55 minority groups in China in the year of 2000, those groups with higher socioeconomic indices, which means they are at lower socioeconomic levels than other groups, tend to have higher values of D-index at provincial and county level. Multiple regressions will be used to test this hypothesis.

Women's Status Model

Images of Chinese minority women continue to be popular in China. They are the center of attention for artists, journalists, and tourists. The minority women often dress and perform in exotic, colorful clothes, and their images are captured in wood carvings, ceramics, batik tablecloths, and bronze sculptures. Souvenir shops all over China sell artifacts with standardized symbols of minority women, with the Dai and the Tibetan minority women as the most popular (see Figure 11).

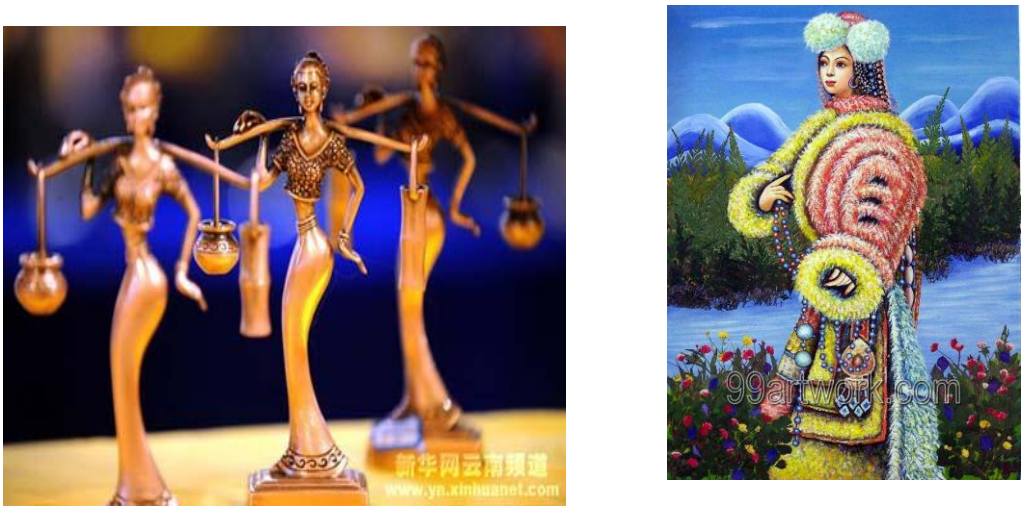


Figure 11: Dai and Tibetan Women

Source: www.yn.xinhuanet.com; www.99artwork.com

In fact, women have played a major role in the creation of China's minority civilization. In China's history, minority women have had a high social status. Minority women were often called the "Spirits of Culture." Even today, one of the minority groups in Yunnan Province (my home province), the Naxi, are still a matrilineal society. Most of the Naxi live in Lijiang City, a city which resides north of Yunnan Province. One of Lijiang City's oldest towns, Dayan, used to be the capital of the ancient Naxi Kingdom. The town was an important fortress on the Yunnan-Tibet "Old Tea Trade Route." The Naxi society's most outstanding feature was the tradition of "Zouhun" (walking marriage), implying that women (and their children) were the central members of a family household. It was commonly accepted in Naxi communities that the husband moved in with his wife's family so that the Naxi women could take over the family's inheritance; this is a situation which is quite different from the marital customs of the Han majority. Actually, in Han communities, the norm is for a woman to move in with her husband's family and only men can control their family's inheritance.

Parallel to the vanishing of matriarchal ethnic minority livelihoods, minority women's social status has also been declining since 1949. Men have taken over the role of "masters of divination." With the economic development of China and influence of Western culture, most minority women today have a relatively low social status, much lower than minority men and majority women.

Therefore the second model to be examined in this chapter, the **women's status model,** seeks to test the relationship between residential segregation of Chinese minority groups and minority women's social status (Table 4). Four variables are used to measure women's status for minority populations, *"Percentage married women who are exclusively house workers," "Percentage of divorced women,"* and *"Percentage of widowed women,"* and TFR.

(1) Marital Status of Minority Women

Chinese census data for 2000 show the average percent of the unmarried minority population is higher relative to the Han majority, and the average percent of the divorced minority population is also higher relative to the Han majority (Figure 12). One of the reasons for this disparity is the difficulty for minority women to remarry after divorce, and the difficulty for widowed minority women to remarry. Thus, more minority women tend to stay in a divorced or widowed status compared to majority women. In the year 2000, only 0.64% of the Chinese Han female population was divorced, but the percentage for the minority female population was 1.3% (Figure 13).

***Table 4*:**
Mean, Stand Deviation, and Minimum and Maximum Scores:
Variables for the *"Women's Status Model"*

Variable	Mean	Std. Dev.	Minimum	Maximum
Variables				
% Married Women House Workers	27.40%	13。58	11.02% (Lisu)	64.37% (Uzbek)
% Divorced Women	1。30%	1。03	0。31% (She)	4。68% (Uzbek)
% Widowed Women	7。66%	1。49	4。33% (Oroqen)	10。84% (Korean)
TFR	1.69	0.44	0.70 (Korean)	2.74 (Lhoba)

With rapid economic growth, China's divorce and remarriage rates have increased greatly since the early 1980s. Following extremely low divorce and remarriage rates in the 1960s and 1970s, China's crude divorce rate increased from 0.33 in 1979 to 1.59 in 2007, and the percentage of remarriages among people who married each year increased from 3.05% in 1985 to 10.24% in 2007. However, regional differences in divorce and remarriage are noticeable. Zeng and Wu (2000) reported China's crude and refined divorce rates, by province, in 1982 and 1990 and discussed the major factors that might contribute to the regional disparities. They found that one of the key factors is ethnic composition. Specifically, remarriage after divorce is more acceptable in some minority societies than in others.

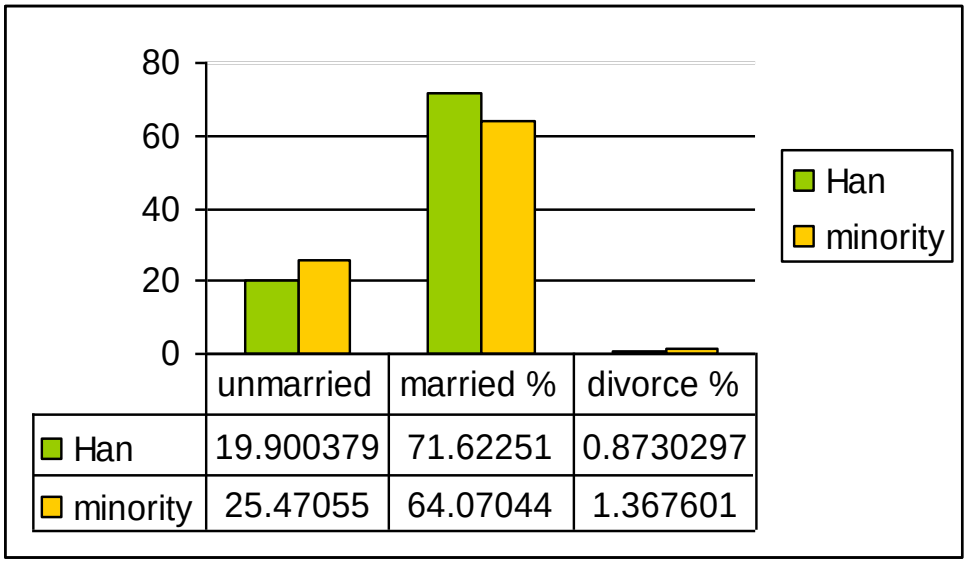


Figure 12: Marital Status, the Han and Minority Populations China, 2000

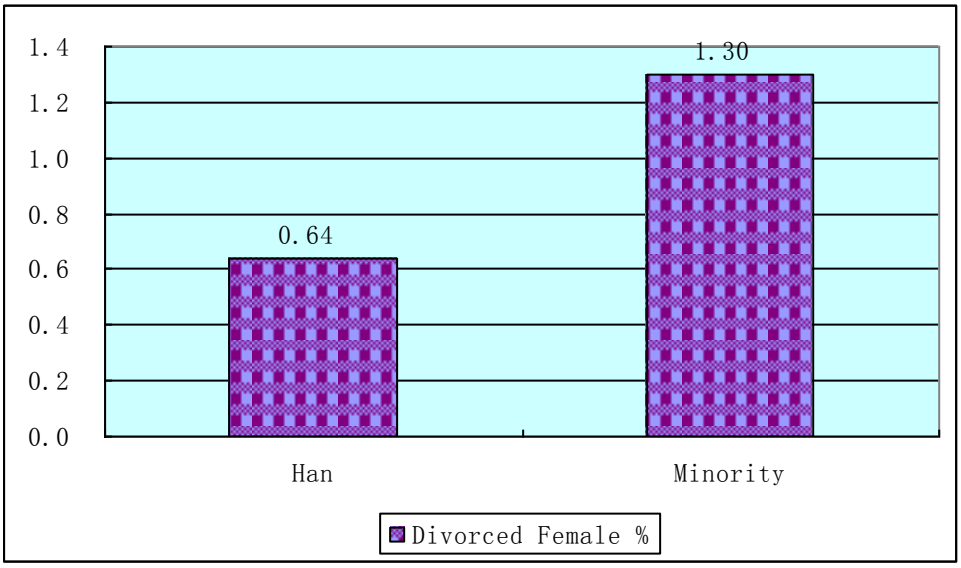


Figure 13: Percentages of Divorced Female Population, the Han and Minority Populations, China, 2000

Hence, I hypothesize that the ethnic differentiation in remarriage is due in part to ethnic residential segregation. Specifically, minority groups with a larger relative number of divorced and widowed women will be more residentially segregated from the Han majority.

(2) Employment Situation of Minority Women

Employed minority women constitute a small percentage of the total employed population in China. In 2000, 61.75% of Chinese minority women aged 15-64 years were employed, compared to 66.38% of majority working age women. A large portion of minority women did not have jobs; rather they worked at home and took care of their family. For the **women's status model** I will use the *"Percentage married women who are exclusively house workers,"* which refers to the percentage of total female population who are married, do not have jobs and are exclusively house workers at home, to measure women's employment situation for each minority group. In the year 2000, among the 55 Chinese minority groups, the larger the value of *"Percentage married women who are exclusively house workers,"* the fewer minority women were employed and the worse the employment situation was for women in that minority group. Table 4 tells us that, on average, 27% of Chinese minority women who were married were exclusively house workers in the year 2000. But the situation was not always similar among the different minority groups (Lisu, 11.02%; Uzbek, 64.37%).

Chinese census data found that in the year 2000, Chinese minority women's employment situation was positively associated with residential segregation. In other words, minority groups which have a larger percentage of married women who are

exclusively house workers should be more residentially segregated from the Han majority than from other minority groups.

(3) Fertility

The fertility rate I use for this model is the TFR, which refers to the average number of children that would be born to a woman over her lifetime if she experienced the exact current age-specific fertility rates of a certain point in time through her lifetime. Most Chinese minorities currently experience higher growth rates than the majority Han population. One reason for the difference of growth rates is due to minority groups not being subjected to China's "one-child" policy. Minority groups are allowed to have two children; some can have three children per couple (State Family Planning Commission, China, 1988). As a result, the minority groups have relatively higher fertility than the Han majority. In the year 2000, the average TFR for China's minority populations was 1.69, higher than the 1.18 TFR for the Han majority (the figure shown on page 56). And for those minority groups which are residentially far from the Han majority, the TFRs are tend to be high, women in those groups tend to have lower social status.

(4) Women's Status Index

The index for this model is **women's status index**. It is created by adding together the standard scores of the four variables, *"Percentage married women who are exclusively house workers," "Percentage of divorced women," "Percentage of widowed women,"* and TFR to measure minority women's status. As mentioned, all \variables in this model have the positive relationships with residential segregation. So I also expect a

positive relationship between **women's status index** and residential segregation. That is to say, among the 55 minority groups in China in the year of 2000, if a minority group has a higher women's status index than other minority groups, which means women have relatively lower social status in this minority group than other minority groups, this minority group will also have higher values of D-indices at provincial and county level. I will use multiple regressions to test this hypothesis later in this chapter.

Demographic Model

In the **demographic model**, I will examine the relationship between residential segregation and population structure among the 55 Chinese minority groups (Table 5). For population structure, "*median age"* and "*old dependency ratio"* will be used to measure age structure; "*sex ratio at birth"* will be used to measure sex structure and son preference.

Age and sex are two central features of a population. Their importance extends within and beyond demography. The interaction of the demographic processes produces a population's age and sex structure, and the demographic processes are themselves affected by the age and sex structure. A society's age and sex distribution also has important implications for socioeconomic and demographic development.

First, I use "*median age"* to measure the age structure of each minority group. This variable refers to the age at which half the population is older and half is younger. In this model, I use "*median age"* instead of "*mean age"* because the median of a range of ages is less sensitive to an extreme age compared to the mean of a range of ages.

Table 3 indicates that in 2000, the median age of all minority populations in China was 25.68 years old, which was 5.4 years younger than the Han majority (31.08 years old).

***Table 5*:**
Mean, Stand Deviation, and Minimum and Maximum Scores:
Variables for the *"Demographic Model"*

Variable	Mean	Std. Dev.	Minimum	Maximum
Independent Variables				
Median Age	25.68	2.69	20.22 (Monba)	35.75 (Korean)
Old Dependency Ratio	7.44	1.74	2.47 (Oroqen)	11.12 (Jing)
Sex Ratio at Birth	110.79	12.31	86.21 (Gaoshan)	150 (Tatar)

Another popular measure of age structure used in this model is the "*old dependency ratio"*. The "*old dependency ratio"* is the ratio of the older dependent-age population (persons 65 years of age and older) to the working-age population (persons 15-64 years old), usually multiplied by 100 for comparison purposes. The higher the ratio, the larger the ratio, the larger the older dependent age population the working-age workers have to support. In 2000, the average "*old dependency ratio"* for all minority populations was 7.44 and the value for the Han majority was 10.31. In other words, in 2000, every 100 minority working-age persons in China needed to support about 7 older minority persons. In contrast, every 100 majority working age persons in the year 2000

had to support 10 older majority persons. Clearly, there were relatively less old(er) people in minority societies, compared to the majority Han.

Third, I use the "*sex ratio at birth"* to measure the sex structure of each minority group in this model. The sex ratio at birth (SRB) is defined as the number of males per 100 females at the age of 0 and is viewed as a principal measure of sex composition in a given population. Most societies have sex ratios at birth between 104 and 106, which means 104-106 boys are born for every 100 girls. This is due to the fact that females have higher survival probabilities than males. In fact, for the year 2000, the minority population's average SRB was lower compared to the majority population's SRB (Figure 14). In addition, the SRB is also commonly used to gauge the degree of gender preference in a particular population.

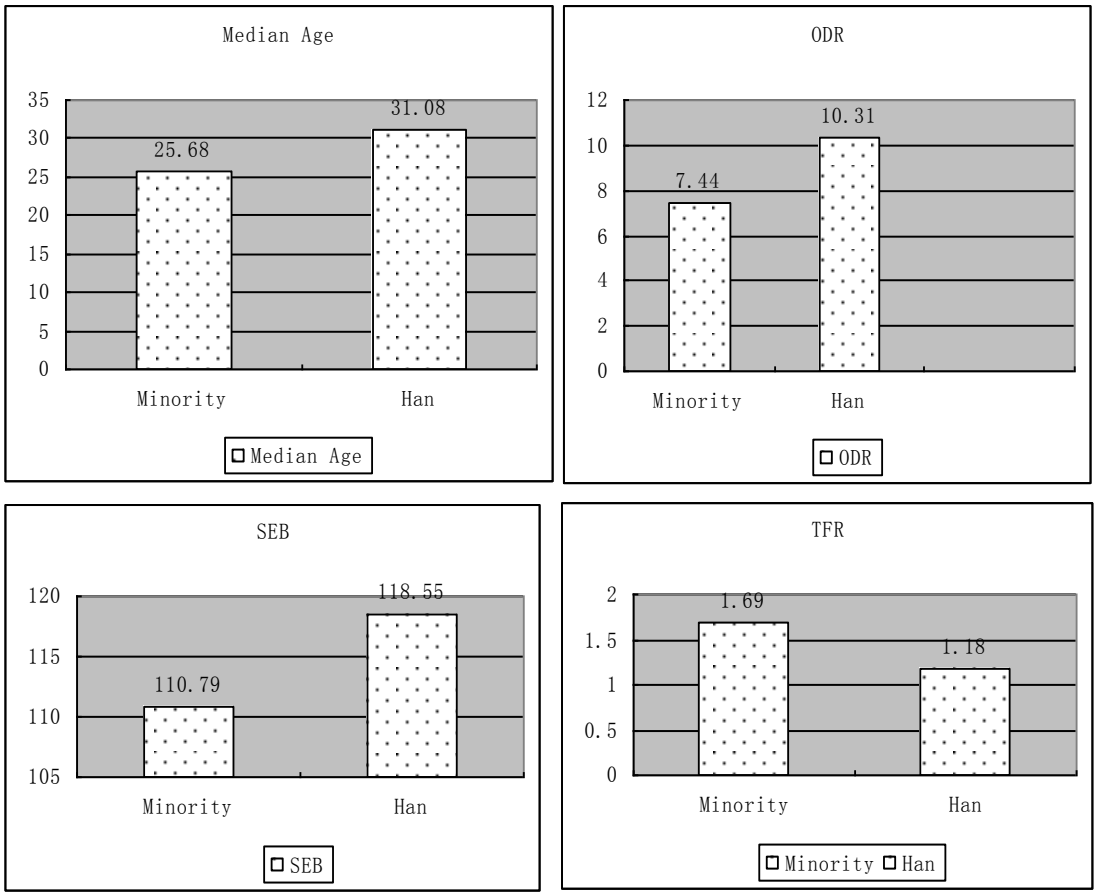


Figure 14: Median Age, Old Dependency Ratio, Sex Ratio at Birth, and TFR of the Han and Minority Populations, China, 2000

Finally, I use the **demographic index** to represent the **demographic model** by adding together the standard scores of the three variables, median age, old dependency ratio, and sex ratio at birth. A lower value of the **demographic index** is related to relatively more traditional demographic characteristics, younger median age, lower old dependency ratio, and lower sex ratio at birth. Overall, the hypothesis for the demographic model states that in 2000, among the 55 minority groups, those groups with lower values of the **demographic index** will be more residentially segregated from the Han majority.

Results and Discussion

(1) Correlations between the Three Indices and Dependent Variables

Before the multiple regressions, let's look at the correlations between **the socioeconomic index**, **the women's status index**, and **the demographic index** and dependent variables, D-indices at provincial and county level at first.

***Table 6*:**
Correlations of the Three Indices and Dependent Variables

	D-index (Provincial Level)	D-index (County Level)
Socioeconomic Index	0.6942	0.7285
Women's Status Index	0.5658	0.5772
Demographic Index	-0.6211	-0.6974

Table 6 shows that all of the three indices are correlated with dependent variables well. At provincial level, **the socioeconomic index** and **the women's status index** are positively correlated with the D-index, especially **the socioeconomic index** with a correlation of 0.69. And **the demographic index** has a negative relationship with the D-index (-0.62). A similar pattern can be found at county level. All correlations have the same directions with the correlations at provincial level, but the three relationships are slightly stronger at county level than the relationships at provincial level.

The correlations in Table 6 partly support my hypotheses. The **socioeconomic index** is positively correlated with D-indices; **the women's status index** is positively correlated with D-indices; and **the demographic index** is negatively correlated with D-indices. To take a step further, I will use multiple regressions to test the three main hypotheses in the following paragraphs and tables.

(2) Regressions and Results

There are two models in my analysis (Table 6). In **the province model**, the dependent variable is the D-index at provincial level, and the three independent variables are the **socioeconomic index**, the **women's status index**, and the **demographic index**; while in **the county model**, the dependent variable is the D-index at county level and the three indices are the independent variables. Given that both of the dependent variables are liner, I will use multiple ordinary least squares (OLS) regressions for the two models. I believe OLS multiple regressions will make the best use of the data and are ideal to test my hypotheses. In each of the model, the regression parameters are estimated by the least squares principle, and the dependent variable is viewed as a linear function of the three independent variables.

Prior to running the regression models, I also examine the tolerances of the three independent variables, and Table 7 indicates that all of them are good, above 0.40. For example, **the socioeconomic index** has a tolerance of 0.72, that is, 72% of the variation in **the socioeconomic index** is independent of the other two independent variables. Therefore, there will not be a problematic amount of collinearity in the model.

Table 7:
VIF Values and the Tolerance Values (1/VIF) for the Three Independent Variables

Variables	VIF	1/VIF (Tolerance)
Socioeconomic Index	1.39	0.721
Women's Status Index	1.35	0.740
Demographic Index	1.06	0.944

In the model of the province (Table 8), the three coefficients are significant. For **the socioeconomic index**, for example, the coefficient is 1.26 indicating that, every one unit increase of the **socioeconomic index** of the 55 minority groups is associated with 1.26 percent increase of the D-index value at provincial level when the other two indices are controlled. And the relationship is obviously significant (P=0.000). The coefficient of the **demographic index** is negative and statistically significant (P=0.01); the coefficient of the **women's status index** is positive and significant (P= 0.064).

In the model of the county, there is not an obvious difference from the model of the province. The three coefficients still keep the significant. For instance, the coefficient of the **demographic index** is -0.67. It means making the **socioeconomic index** and the **women's status index** constant, every one unit increase of **the demographic index** will associated with 0.67 percent decrease of the value of D-index at county level. This association is significant (P=0.0015). And the coefficient of the **socioeconomic index** is positive and significant, as well as the coefficient of the **women's status index**.

***Table 8*:**
Coefficients of Multiple Regression Models

	D	
	(Province)	(County)
Socioeconomic Index	1.261 * *	0.730 * *
Women's Status Index	1.007 *	0.453 *
Demographic Index	-1.667 * *	-0.665 * *
Constant	89.388 * *	94.080 * *

Significance at 0.10 (*)
Significance at 0.05 (* *)

(3) Testing the Hypotheses

After analyzing the results of the regressions, we have evidence to conclude that my three main hypotheses are confirmed. First, the more residentially segregated minorities do have higher values of the **socioeconomic index** which means lower socioeconomic development than the less segregated minority groups in the year 2000. Second, the women's status hypotheses are also confirmed. Women from more segregated minority groups tend to have lower social status than women from less segregated minority groups. We can see this pattern from the regressions' results. The minority groups with higher values of **the women's status index** tend to have higher values of the D-indices, and a higher value of **the women's status index** indicates a relatively lower women's social status in those minority groups.

Finally, the demographic hypotheses find support in the regression results too. Basically, minority groups with lower values of the **demographic index** are characterized by more traditional demographic indicators such as a younger age structure or a lower sex ratio at birth, and among the 55 minority groups, they tend to be more segregated from the majority.

Conclusion

In last chapter, I calculated the D-index for each of the 55 minority groups comparing their residential distributions with the distribution of the Han majority. The indices were calculated both at the provincial and the county levels. In this chapter I wanted to ascertain if the levels of residential segregation are related to certain socioeconomic and demographic characteristics of the minority groups. For the year 2000 in China, are those minority groups who are the most residentially segregated from the majority Han also the least advanced in socioeconomic and demographic characteristics?

I first proposed my three main hypotheses: in 2000, more residentially segregated minorities should be characterized by lower socioeconomic development than the less segregated groups; minority women from more segregated minority groups should have lower social status than minority women from less segregated minority groups; and the more segregated minority groups are more likely to have traditional demographic characteristics than the less segregated groups. Then, three basic models were set forth to investigate the hypotheses. They were the **socioeconomic model**, the **women's status model**, and the **demographic model**. Different indicators were used in each of the models. Finally, my hypotheses were highly confirmed by the multiple regression results: those minority groups who are the most residentially segregated from the majority Han are also the least advanced in socioeconomic and demographic characteristics.

In the next and last chapter of my thesis, I examine some of the implications of my research results. I also appraise my general findings and note where future research

is needed in this area of study.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

Conclusions

A major contribution of the research I conducted in my thesis is advancing our understanding of the patterns of residential segregation of China's minority nationalities from the majority Han in the year 2000. As previously mentioned in Chapter II, most current studies on China's minority populations lack a standard use of concepts and methodologies, and the findings are usually not directly comparable from one minority group to another. My thesis attempted to fill this gap by using a common method to examine consistent data on each minority nationality from China's 2000 census. And the analysis was conducted at the provincial and the county levels.

(1) Summary of Findings

Utilizing a 1993 research paper by Poston and Micklin in which they calculated segregation scores for the 55 Chinese minority groups using 1982 Chinese census data, I analyzed the residential segregation patterns of Chinese minority populations using the same residential segregation index (D-index, i.e., the dissimilarity index) but for a different census year (the year 2000). A detailed description of the D-index values for each minority group was provided in Chapter III of this thesis.

The major findings of my research are the following: At the provincial level, the Chinese minority groups were less segregated from the majority Han in 2000, compared

to 1982. However, based on the standard 30% threshold level often used to assess the magnitude of the values of the D-index, most Chinese minorities in 2000 were still considered to be highly segregated from the majority Han at the provincial level. A similar pattern was found in the county level analysis, although it appears that the 55 Chinese minority groups were more segregated from the majority Han at the county level than at the provincial level in the year 2000.

In Chapter IV I examined the relationship between China's minority population residential segregation patterns and their socioeconomic and demographic characteristics using three different theoretical models: the **socioeconomic model**, the **women's status model**, and the **demographic model**. Using these models, most of my hypotheses were confirmed: in 2000 China, the more residentially segregated minority groups were characterized by lower socioeconomic levels than the less segregated minority groups; women from more residentially segregated minority groups tended to have lower social status than women from less segregated minority groups; and the more residentially segregated minority groups were more likely to have traditional demographic characteristics such as higher fertility levels, a younger population structure, and higher sex ratios at birth than the less segregated minority groups.

(2) Implications: Ethnic Conflicts and a Homogeneous Society

Among the 55 minority groups, China's ethnic minority issue has always been a major political concern. There are various highly volatile minority regions where the continuing political unrest reflects a persistent problem that China has faced long before

the People's Republic was established in 1949. The Chinese government often treats this issue exclusively as a sovereignty matter and thus attempts to refute outside criticism. Although ethnic conflict continues to be a complicated issue in China, an obvious and important question still needs to be addressed: what factors are related with minority conflicts in China?

The data and analyses in this thesis, I believe, at least give us some evidence to believe that ethnic segregation might be one of the factors behind the continuing ethnic conflict among the minority groups in China. The two most volatile minority regions in China, Xinjiang and Tibet, are also home to minority groups such as the Uygur, Tajik, and the Tibetan, which are highly segregated from the majority Han. For centuries, the Uygur, Tajik, and the Tibetan have been concentrated in these two regions (Xinjiang and Tibet). In the Xinjiang and Tibet regions these very high levels of residential segregation which have slowed the socioeconomic development of the Uygur, Tajik, and the Tibetan minority groups; also responsible are the very limited social and economic resources available to them. Residential segregation, isolation, and limited interactions with the majority population have undoubtedly lead to some political and social misunderstandings, abomination, and conflicts between these minority communities and the majority Han society.

China is often seen as a homogeneous society due to the very large percentage of the Han majority population, almost 92 percent. However, considering the 55 different minority groups, I think China should not be classified as an ethnically homogeneous country, but rather as a culturally diversified and multinational state. The government

has claimed that socioeconomic advancement is now very similar among the different ethnic nationalities; but the fact is that socioeconomic advancement has not been similar among all the minority nationalities of China. The analyses I conducted in this thesis at least provides some support that socioeconomic development varies among the minority groups in the year 2000 and that the variation is closely related to ethnic residential segregation.

Limitations and Future Directions

(1) Limitations of Measurement

Previous literature indicates that within a less advanced society, people tend not to delay their marriage, but marry at earlier ages. Clearly, there should be less unmarried people in these societies. However, 2000 census data show that the Chinese minority population's average percent of total population who are unmarried was higher than the majority Han in 2000. This finding is opposite to that shown in the literature. Why?

One of the major reasons for this opposing result is the young age structures of the Chinese minority populations; but we cannot overlook the fact that marriage practices are diverse across the different minority cultures in China. Some minority groups have the tradition of not registering their marriages. Minority groups may prefer a traditional wedding and view it as more official than a civil wedding. There is no strong empirical evidence to identify which minority group tend not to register their marriages.

As a result of this limitation, I have had difficulty measuring the marital status of minority populations. In the **women's status model**, I excluded the "*Percentage of married women*" variable because it may have misled the interpretations of my final results. Women's age at first marriage is a better indicator of marital status, but, unfortunately, the 2000 census does not have any information about minority women's age at first marriage.

(2) Limitations of Minority Groups

In this thesis, I used 55 minority groups which are officially recognized by the Chinese government. However, besides the 55 groups, there are still some other minority groups in China, such as unrecognized ethnic groups in mainland China, ethnic groups in Hong Kong and Macau, and ethnic groups in Taiwan. Besides the ethnic groups, several other minority groups living in mainland China are not officially recognized by the Chinese government. Taken together, the total number of unrecognized ethnic and minority groups was more than 730,000 in 2000; if considered as a single group, they would constitute the twentieth most populous minority group of China in the year 2000.

Hong Kong and Macau are special administrative regions of China. The governments of Hong Kong and Macau do not use the official ethnic classification system of China, nor does China's official classification system take ethnic groups in Hong Kong and Macau into account. As a result, minority groups such as Filipinos, Indonesians, Europeans and South Asians in Hong Kong, as well as Portuguese and

Macanese (people of mixed Chinese-Portuguese ancestry) in Macau, do not appear in the official list of minorities in China.

As mentioned, the Chinese government officially categorizes all ethnic groups residing in Taiwan into a single group, the Gaoshan. But the Taiwan government officially recognizes the Gaoshan as comprised of 14 unique groups. Actually, Gaoshan people are indigenous people living in Taiwan. They have lived on the Taiwanese islands for approximately 8,000 years before the arrival of the majority Han. For centuries, Taiwan's aboriginal people experienced economic competition and military conflict with a series of colonizing peoples. Today, they face economic and social barriers, including a high unemployment rate and substandard education.

Due to the limited and/or non-existant data available for all the minority groups, I cannot include them in my analysis. But if I am able to locate more sufficient data, these minority groups may provide a unique contrast to the minority groups included in my analysis.

(3) Next Steps

In this thesis, I mainly used the "evenness" measure of segregation, which is a measure of only one of the five dimensions of residential segregation. Therefore, in my future study of this topic, I intend to extend the research by also including measures that tap the four other dimensions of residential segregation: "exposure", "concentration", "centralization", and "clustering". It may be interesting to examine the relationship

between the socioeconomic and demographic structures of China's minority groups and measured tapping each of the other four dimensions of residential segregation.

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APPENDIX A

Table A1: **Measures of Residential Segregation from the Han Majority at Province Level: Fifty-Five Minority Nationalities of China, 2000.**

	Minority	D		Minority	D
1	Mongolian	79.5259	30	Daur	90.11279
2	Hui	52.6848	31	Mulam	91.50554
3	Tibetan	87.3568	32	Qiang	91.38546
4	Uygur	98.7013	33	Blang	95.89799
5	Miao	77.9065	34	Salar	95.46947
6	Yi	87.5479	35	Maonan	93.50645
7	Zhuang	90.0288	36	Gelo	94.56686
8	Bouyei	92.2435	37	Xibe	86.4687
9	Korean	84.0161	38	Achang	96.2917
10	Man	79.6451	39	Primi	95.5363
11	Dong	84.3992	40	Tajik	95.6001
12	Yao	80.1991	41	Nu	95.6001
13	Bai	88.4957	42	Uzbek	97.1264
14	Tujia	81.1198	43	Russian	87.5564
15	Hani	96.5006	44	Ewenki	90.1078
16	Kazak	98.9068	45	Deang	96.7901
17	Dai	96.0667	46	Baoan	96.4466
18	Li	95.9576	47	Yugur	94.8086
19	Lisu	93.5603	48	Jing	87.9122
20	Wa	94.0947	49	Tatar	93.1908
21	She	81.8287	50	Derung	77.7858
22	Gaoshan	38.5201	51	Oroqen	86.1711
23	Lahu	96.1818	52	Hezhen	83.9617
24	Shui	90.96435	53	Monba	95.0326
25	Dongxiang	96.46254	54	Lhoba	91.6338
26	Naxi	93.57184	55	Jino	96.4965
27	Jingpo	96.05922			
28	Kirgiz	98.06803			
29	Tu	88.73864			

Table A2: **Measures of Residential Segregation from the Han Majority at County Level: Fifty-Five Minority Nationalities of China, 2000.**

	Minority	D		Minority	D
1	Mongolian	86.49	32	Qiang	97.14
2	Hui	68.56	33	Blang	97.45
3	Tibetan	97.44	34	Salar	97.64
4	Uygure	98.72	35	Maonan	96.13
5	Miao	90.93	36	Gelo	95.63
6	Yi	94.65	37	Xibe	89.55
7	Zhuang	93.59	38	Achang	97.93
8	Bouyei	94.45	39	Primi	97.06
9	Korean	87.42	40	Tajik	96.14
10	Man	84.52	41	Nu	97.33
11	Dong	93.76	42	Uzbek	97.66
12	Yao	92.62	43	Russian	91.22
13	Bai	95.19	44	Ewenki	93.22
14	Tujia	92.62	45	Deang	98.64
15	Hani	97.90	46	Baoan	98.55
16	Kazak	99.24	47	Yugur	97.12
17	Dai	97.44	48	Jing	93.44
18	Li	97.34	49	Tatar	96.17
19	Lisu	97.56	50	Derung	87.27
20	Va	96.15	51	Oroqen	90.10
21	She	90.84	52	Hezhen	90.94
22	Gaoshan	73.81	53	Monba	96.96
23	Lahu	97.79	54	Lhoba	96.65
24	Shui	96.04	55	Jino	98.34
25	Dongxiang	98.30			
26	Naxi	97.22			
27	Jingpo	97.95			
28	Kirgiz	98.96			
29	Tujia	91.80			
30	Daur	92.50			
31	Mulam	94.24			

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