Understanding Residential Patterns in Multiethnic Cities and Suburbs in U.S. and Canada*

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Abstract

There was a time in North America when the urban settlement pattern of immigrants was typically described as a slow transition from clustering with co-ethnics in cities to integrating with the established group in suburbs. Growing evidence of residential patterns, considered as anomalies in the past, however, has challenged this traditional residential pattern. Studies document that more immigrants have chosen to settle in metropolitan outer areas within a short period of time after arrival. Logan et al. (1999) showed a large percentage of immigrants settled in suburban areas within 5 years of their arrival in the U.S. To accompany this urban-to-suburban shift is ethno-racial diversity of suburbs. In other words, not only do recent immigrants not follow the path of settlement as described in the past, but also ethno-racial minority groups increasingly reside in suburban neighborhoods, thus transforming the suburbs into ethno-racially diverse areas. Black representation in American suburbs has jumped sharply in the last few decades. In 1970, only about 16% of blacks resided in suburban areas; the percentage had risen to 38% in 2000 (U.S. Census Bureau 2004). An increase in Hispanics and Asians in suburbs was also documented, about 53% and 49% respectively. Subsequently, residing in suburban neighborhoods does not necessarily mean greater social integration. In fact, research increasingly points out that a growing number of ethnic neighborhoods have emerged in suburban areas. According to Logan (2004), about 18% of Afro-Caribbean, 26% of Cuban, and 8% of Koreans reside in suburban ethnic neighborhoods in Los Angeles and New York. Canada, too, has experienced an urban-to-suburban shift of immigrant settlement pattern and a greater ethno-racial diversification of suburban areas (Fong, Matsuo, and Wilkes 2002). Of those living in suburbs, about 33.3% of Eastern Europeans, 43.2% of East and Southeast Asians, and 43.3% of blacks are living in ethnic neighborhoods.

What is today's residential integration-segregation landscape in multi-racial, multi-ethnic urban and suburban areas? How does it evolve from the traditional suburban-integration and urban-segregation pattern just a decade ago? In order to answer these questions, we clarify three conceptual issues. First, inter-group relationships among multiple groups are fundamentally different from inter-group relationship between two groups (while other groups are co-existing) or between one target group and the residual group. The reason for the former is that the two groups in question do not live in a vacuum and the reason for the latter is that the residual group blurs the group boundaries of multiple groups that comprise the residual. Most previous studies have focused on comparing the levels of sharing neighborhoods between two groups, usually blacks and whites and sometimes Hispanics or Asians with whites or with all others (e.g., Alba and Logan 1991; Frey and Farley1996). Few studies have explored inter-group relationship of multiple ethno-racial groups (except Iceland 2004). Second, because multi-racial, multi-ethnic diversity is a result of recent massive immigration from non-European countries, immigration must be taken into account in examining the evolution of residential patterns in multi-racial, multi-ethnic contexts. Not only does a large presence of immigrants make such an examination possible, but, more importantly, immigrants' cultural traits, language skills, and reception of the host society determine their interactions with native and other immigrant groups in a very different way from their native ethno-racial counterparts. Failures to distinguish between natives and immigrants within an ethno-racial group will miss this important aspect of social interaction and process. As Portes (1999) pointed out, the discussion of racial and ethnic issues in contemporary metropolitan areas can no longer be completed without considering immigration. Third, a better understanding of the new residential landscape and its evolution cannot be achieved without proper comparisons. We propose three-way comparisons. First, we compare residential patterns

among a few selected ethno-racially diverse metropolitan areas with different levels of ethno-racial compositions. The social process of inter-group interaction depends on the relative size of the groups. Detailed comparisons of these metropolitan areas will reveal the relative importance of ethno-racial composition in multi-group integration or segregation. Second, we compare the current residential patterns as well as their evolution in a decade between cities and suburbs. As the population has become increasingly diverse, residential patterns in both cities and suburbs are bound to be changed. By comparing changes in suburbs with those in cities, we can reveal specifics in suburbs in a much more accurate manner, which features the current residential transformation. Third, we compare the urban-suburban patterns in the U.S. with those in Canada. The two North American countries have a lot of commonalities such as the current political and economic systems. Yet they are uniquely different in language, urban development, immigration policy, source of sending countries, and characteristics of immigrants. The two official languages in Canada add an additional dimension to residential patterns. The urban development in Canada is later and more rapidly than that in the U.S. The Canada immigration policy is more selective on skills and capital than the U.S. policy so that the level of education and skills of recent immigrants to the U.S. is lower than those to Canada. Central and South America is not a major source of sending countries to Canada so that Hispanics is not a major immigrant group as is in the U.S. These differences can broaden our horizon in examining residential patterns in multi-racial and multi-ethnic contexts. In short, the U.S.-Canada comparison will reveal the role of these unique factors at a macro level in shaping the transformation of residential patterns.

We select 5 metropolitan areas in the U.S. and 4 in Canada. They are New York, Chicago, Houston, Las Angeles and San Francisco in the United States and Toronto, Vancouver, Montreal, and Calgary in Canada. Data are from the long-form file of the 2000 and 1990 U.S. censuses and

those of the 2001 and 1991 Canadian censuses. We selected the five major metropolitan areas (MSAs) in the US with proportions of Asian and Hispanic population larger than their average in the largest 50 MSAs. These 5 MSAs also have considerable proportion of African Americans. We select the 4 major Canadian metropolitan areas according to their large proportion of Asians and immigrants in general. The U.S. census data provide information on urban-suburban distinction at the tract level. The Canadian census data, however, do not contain direct information to distinguish between cities and suburbs. Previous work of one of the authors has collected detailed information to accurately identify cities and suburbs in Toronto (Fong 2004). We use later building timing as a proxy for suburbs in other three Canadian metropolitan areas. For the U.S. data, we define 6 mutually exclusive and exhaustive ethno-racial groups—non-Hispanic white, non-Hispanic black, non-Hispanic Asian, non Hispanic other, Hispanic white, and Hispanic other. Cross-classifying these with nativity we obtain 12 groups. We study residential pattern among these 12 groups in urban and suburban areas of the 5 selected American metropolitan areas in 2000 and the change from 1990 to 2000. For the Canadian data, we define 4 mutually exclusive and exhaustive ethno-racial groups— non-Hispanic white, non-Hispanic black, non-Hispanic Asian, and non Hispanic other. Because of the large presence of Asian immigrants, we can further divide Asia into regions—East, South, and Southeast, which increases the number of groups to 6. Cross-classifying with nativity also yields 12 groups. We study residential pattern among these 12 groups in urban and suburban areas of the 4 selected Canadian metropolitan areas in 2001 and the change from 1991 to 2001.

We use two measures of multi-racial, multi-ethnic contexts of metropolitan areas. One is the entropy index (Theil 1972). Let $m=1,\ldots,M$ be the racial groups, π_m be the proportion of the

area population (distinguishing cities and suburbs) that is in the m^{th} group. The entropy index is defined as:

(1) $$E = \sum_{m=1}^{M} \pi_m \ln \frac{1}{\pi_m}.$$

E ranges from 0, when there is only one racial group to $\ln M$ when the M groups are evenly distributed in the area. This formula indicates that E is determined by the number of racial groups and their sizes.

Second, we use Theil's information theory index H to describe multigroup segregation as suggested in Reardon and Firebaugh (2002). Let t_j be number of individuals in tract j, T total number of individuals in an MSA's cities or suburbs, E_j the tract-level diversity, then the multigroup segregation index is

(2) $$H = \sum_j t_j (E - E_j) / TE.$$

It is the weighted sum of the deviation of tract-level diversity from the overall MSA-level diversity in cities or suburbs. The larger the size of a track, the greater weight it has. The larger the value of H, the greater is the degree of multigroup segregation.

This multigroup segregation index describes the total, or mutual, segregation among M racial groups, which can be decomposed into segregation within and between particular combinations of those M groups (Reardon et al. 2000). For example, we are interested in how blacks are segregated from all others and among these all others the sub-multigroup segregation among white, Asian, Hispanic white, Hispanic other, and other. Below we use a simplified case to explicate decomposition. Suppose there are four racial groups (BWHA) in a MSA, we can partition the multigroup segregation with a focus on black segregation as below:

(3) $$H_{B\backslash W\backslash H\backslash A} = (E_{B\backslash WHA} / E_{B\backslash W\backslash H\backslash A}) H_{B\backslash WHA} + (1 - Q_B)(E_{W\backslash H\backslash A} / E_{B\backslash W\backslash H\backslash A}) H_{W\backslash H\backslash A}$$

where Q_B is the proportion of the MSA population that is black. This expression indicates that the weights for the between and within segregation are determined by the ratio of the between (within) diversity to the total diversity and the black proportion. The same logic applies to our analysis addressing other groups.

We will apply these analytical tools, the Theil's entropy index for diversity, the Theil's information theory index for multigroup segregation, and the decomposition of the multigroup segregation index to the urban and suburban areas of 5 MSAs in the U.S. and 3 in Canada. We will examine the relationship between diversity and segregation and between composition and segregation by highlighting the situation of the nativity-ethno-racial group one at a time. The three-way comparisons, coupled with social, economic, political, and historical details of each metropolitan areas will, we hope, deepen our understanding of residential patterns in multi ethno-racial cities and suburbs, a fundamental social condition for various group's well being and social mobility.

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