WHO MOVES INTO WHAT KINDS OF NEIGHBOURHOODS: SPATIAL SORTING AND INTEGRATION

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ABSTRACT

This paper asks the question – who moves into what kinds of neighbourhoods and what kind of residential sorting is occurring in the ethnically diverse metropolitan region of Los Angeles. The study examines residential selections across a typology of neighbourhood types in the Los Angeles metropolitan region using residential mobility data from the Los Angeles Family and Neighborhood Survey (LAFANS). Similar to recent work in the UK and Canadian contexts, ethnic groups demonstrate moderately strong relationships between their socio-economic statuses and their neighbourhood contexts. Both behaviour, that is, actual moves and preferences, are consistent with a tendency to increased mixing and declining segregation in the residential mosaic. In particular, the expressed residential preferences and the choices of these households provide an explanatory context for the overall decline in segregation.

Key words: residential mobility; neighbourhoods; preferences; segregation; integration

INTRODUCTION

Studies of spatial assimilation continue to be at the heart of demographic and sociological investigation of residential patterns, a far from surprising observation as the immigration flows to the United States and in Europe continue in size and complexity. Within studies of assimilation the nature of residential sorting is at the heart of just how spatial assimilation is working out for new immigrants and how immigrants and established racial and ethnic groups are changing the nature of the residential patterns that we observe in the large multiethnic cities of the United States. In this context, the present paper asks the question 'who moves into what kinds of neighbourhoods and how much residential sorting is occurring'? I do this in the context of a rapidly changing and ethnically diverse metropolitan area.

The research is set within the changing patterns of residential ethnic and racial distributions in American cities. As both Lee and Bean (2010) and Frey (2015) have documented, the residential structure of American cities is continuing to change and the old patterns of Black and White segregation are less and less relevant, especially in large metropolitan areas like Los Angeles, San Francisco, Houston, New York, Dallas and Atlanta. At the same time, Lee and Bean (2012) draw attention to the conflicted positions in the academic literature on how it will all play out in the coming decades. A recent survey of studies of segregation suggests we are at a crossroads in the study of segregation and by extension of assimilation (Freeman 2016). Will there be growing integration as in the mobility processes of a 100 years ago or will re-segregation grow and a bifurcated process of integration emerge with some groups assimilating and mixing and others locked

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into old patterns of ethnic and racial concentration? These are topics of considerable importance and the paper comes down on the view that there is enough evidence for mixing to maintain a positive view of the spatial assimilation process.

To evaluate the process of neighbourhood selection I use data from the Los Angeles Family and Neighborhood Survey (LAFANS) to follow movers in the periods 2001–02 and 2006–08. Unlike other analyses of mobility in metropolitan areas and studies of integration more generally (which are often tract based), this study focuses on a finer scale of residential choice. Census blocks are grouped into a set of neighbourhoods classified by varying combinations of ethnic groups. The study then examines the neighbourhood type choices that the movers make when they relocate. The study follows their selections across these neighbourhoods defined by varying numbers of similar or different racial and ethnic combinations.

The study examines the choices of Whites, Blacks, Hispanics and Asians. While the majority of the White and Black households are native born, 71 per cent of Hispanics and 75 per cent of Asians in the sample of movers are foreign born. However, a large proportion of the Hispanic and Asian sample populations have been resident in Los Angeles for more than two decades. Thus, these ethnic groups are a combination of old and new arrivals. The distribution and re-distribution of both native born and immigrant populations is a rich context in which to examine just how sorting is occurring for existing and new populations, and how the residential fabric is being created by the tensions of the choices of these different groups. Specifically, in this paper I analyse four questions: (i) what are the choices by ethnic and racial background – are they choices for more own race or other race neighbourhood combinations; (ii) do those choices increase integration, increase segregation, or remain neutral; (iii) do resources matter in neighbourhood choices, how much does income and status matter in the choices that we observe; and (iv) how are residential preferences translated into actual neighbourhood choices?

These are important questions not just in the academic sense, but for how political structures and governmental bodies will function and change as the United States becomes a majority Hispanic nation and continues to evolve into a multiethnic society.

PREVIOUS RESEARCH

There are continuing vigorous discussions of whether classical theories of immigrant assimilation still apply and how much resources matter for the outcomes of the well-being of immigrants. In fact, what has emerged in these discussions, as a central issue, is not just the implications for the immigrants themselves but the implications of the outcomes for their children. As the children of immigrants born in the United States grow up to be the majority of the working age population where will they live, in what kind of neighbourhoods and what will be their opportunities? These are critical questions about the continuing development of North American society. It is now possible to follow this research line with the current data from LAFANS, a detailed study of actual moves across neighbourhoods in Los Angeles.

The debates about adaptation and assimilation of course are usually focused on generational assimilation, the process whereby earlier waves of immigrants over several generations move up in status and spatially to new locations where they are mixed with the native born. Within those studies there is now a thread of research which argues that the classic assimilation of the pre-1965 immigrants is very different from the opportunities for those who came in the second half of the 20th century. Alba and Nee (1997) suggest that because contemporary immigrants come from a much wider variety of backgrounds they begin at different places in the American class system and have different trajectories in assimilation and residential locations. Earlier waves of immigrants took several generations to move across the residential mosaic but increasing evidence suggests that the recent immigrants have much more diverse spatial assimilation paths. For example, Mexican immigrants seem to be transitioning to the

American working class in a similar manner to earlier immigrant groups, but they are already also moving into suburban locations (Waldinger & Feliciano 2004). For Asian groups there appears to be both concentration and dispersal (Clark *et al.* 2015).

There are also questions about how the increasing mixed race households will affect the spatial patterns of assimilation (Ellis *et al.* 2011). Clearly, mixed race individuals and households live in more diverse settings (Ellis *et al.* 2007; Clark & Maas 2012; Wright *et al.* 2014) which leads to the view that that racial boundaries may be as fluid in the present as they were eventually for Irish, Italians and Jews. The discussions of the residential choices of immigrants throws into sharp relief questions about the way in which the spatial patterns of immigrants are changing and whether or not immigrants and their children are not only moving into better occupations with higher incomes but how this is being translated into changing spatial patterns.

Given the increase in ethnic neighbourhoods and the growing complexity of the spatial structure of cities like Los Angeles, New York, Houston, Denver and Seattle it is useful to examine the spatial mobility of both the established racial and ethnic groups and immigrants, to give us a better handle on what the future is likely to be with respect to spatial residential patterns and the level of integration.

Two bodies of research on residential patterns provide an immediate context for the present research. One group of studies emphasises how diversity is changing the residential landscape and how the preferences for particular combinations of other groups is changing the patterns of the city (Van Ham & Feitjen 2008; Clark *et al.* 2015; Clark & Coulter 2015). Several studies have taken up the associated issue of how neighbourhood perceptions influence the decisions of where to live (Permentier *et al.* 2011; Permentier 2012; Greif 2015). Other papers focus on the neighbourhood contexts of different generations of immigrants and whether later generations reside in neighbourhoods with lower proportions of members of their own ethnic group (Fong & Hou 2009). Underlying this argument, and implied by the spatial assimilation perspective, is the notion that there is a greater ability over generations to translate economic resources into spatial outcomes. Those with greater fluency in English, greater familiarity with the culture of the mainstream society, and the ability to utilise social networks have all been identified as important parts of the increase in residential integration. In a Canadian study, Fong and Hou (2009) showed that the new immigrant groups of South Asians, Chinese and Blacks in Toronto steadily increased their residential contact with Whites. Thus, families with higher incomes or whose children have higher education are more likely to reside in neighbourhoods with higher proportions of Whites and lower proportions of other visible minorities. The most important finding of the work is a reiteration, consistent with the literature, that resources are significant for full integration (Fong & Chen 2010).

Studies of actual mobility between neighbourhoods also provide an important context for the present analysis. South and his collaborators (2015) found that overall residential mobility out of the census tract of origin was mostly determined by the conventional sociodemographic determinants of mobility, that is age, marital status and tenure. Younger households are more likely to move, married households less likely to move, and homeowners and the number of children are negatively associated with moving out of the neighbourhood. But, important for the present study are two findings about residential moves. First, residential mobility out of the origin (often majority Hispanic neighbourhoods) was into neighbourhoods that have higher percentages of Anglos and was more likely to occur for second and third generations than for first generations. It was also related to increased human and financial capital and English-language use. Consistent with spatial assimilation notions, Mexicans appeared to be on a trajectory to convert resources to moves into less Hispanic neighbourhoods (South *et al.* 2005). Second, even within the broad Latino community, not all groups move at the same rate and into similar neighbourhoods. These findings are consistent with the observations in Iceland and

Nelson (2008) on the multiple paths to assimilation. As South *et al.* (2005) note, until their paper was published there was little research which directly examined the mobility behaviour between neighbourhoods and most of the studies looked only at the aggregate spatial outcomes of residential change. This paper is a direct response to their call for more individual level analysis.

There is no question that racial boundaries and the nature of integration and segregation are changing (Lichter 2013). However, there are still contested views of whether the racial boundaries will be changed by shifting patterns of racial segregation in neighbourhoods and just how much the growing diversity will change the essential nature of society. From the European perspective there is concern that diversity may not always be a positive factor in mobility behaviour. But again the paths are complex and the outcomes are complex as Laurence and Bentley (2016) show. They argue that increasing diversity has negative effects on stayers but attitudes are not changed for those who move into diverse areas. Clearly, selection effects and prior attitudes are playing a role in these selections. One can argue that in a pluralistic society the goal of incorporation is not to remove ethnic distinctions, but rather to find ways in which economic opportunities can be shared by all groups. Any policy which encourages its members to invest in shared human capital, a policy which is genuinely inclusive, that is welcoming ethnic diversity without encouraging separation would have the effect of encouraging greater spatial integration. The aim then, is not to erode all ethnic distinctions, but rather to increase the common culture and economic opportunities shared by all groups (Chiswick 2006).

In a sense, residential separation may be one of the strongest challenges to creating an incorporated society, multicultural or otherwise. To the extent that immigrant groups create separatist lifestyles, enclave economies, and economic activities outside of the mainstream, and choose, or are relegated to, residentially separate locations, they may become the replacement underclass for African Americans. Hence the nature and extent of residential sorting, the process of spatial change, is important at all levels.

DATA AND CONTEXT

Southern California (the five-county area that makes up greater Los Angeles) is a diverse and demographically changing region. Its 18 million people represent approximately half of the population of the entire state. The Los Angeles metropolitan area makes up about half of the population of the Southern California region (Table 1). It is now a plurality of Whites, Hispanics, Blacks and Asians with rapid growth of the Asian population. It also shows the continuing growth of the Hispanic and Asian populations and the decline in the White total population. The analysis is built on two data sources, survey data from the Los Angeles Family and Neighborhood Survey (LAFANS) and block data on race and ethnicity from the US Census 2000 and 2010.

LAFANS is a household survey of families in 65 randomly sampled census tracts in Los Angeles County. Two waves of interviews with approximately 6,000 residents in 3,000 households have been completed. In addition to the publicly accessible data there are several special data sets that incorporate detail on the neighbourhoods in which the respondents live and the neighbourhoods from which they came if they moved. Data collection for Wave 1 was initiated in April 2000 and completed in mid-January 2002. Wave 2 was initiated in 2006 and completed in 2008. Detail on LAFANS is available at www.rand.org/labor/lafans.

The sampling strata in the LAFANS design correspond to tracts that are very poor (those in the top 10% of the poverty distribution), poor (tracts in the 60–89th percentiles), and non-poor (tracts in the bottom 60% of the distribution). There was an over-sampling of poor and very poor tracts (Sastry *et al.* 2003). The data used in this analysis is drawn primarily from two modules: the household questionnaire and the adult questionnaire. The household questionnaire collected information on income of family members, and the adult questionnaire collected detailed information on the family background,

Table 1. *Population composition in The Los Angeles metropolitan area.*

	2000	2010
Total population	9,519,338	9,818,605
White (%)	31.1	27.3
Hispanic (%)	44.6	48.2
Black (%)	9.8	9.3
Asian (%)	11.9	14.5

Source: US Bureau of the Census, Census of Population, 2000 and 2010.

educational history social ties, residential history, employment welfare and health status, as well as neighbourhood information. The data are geo-coded and were matched to tracts and census blocks from the 2000 Census. From the two Waves, I selected households that moved in the intervals covered by Waves 1 and 2.

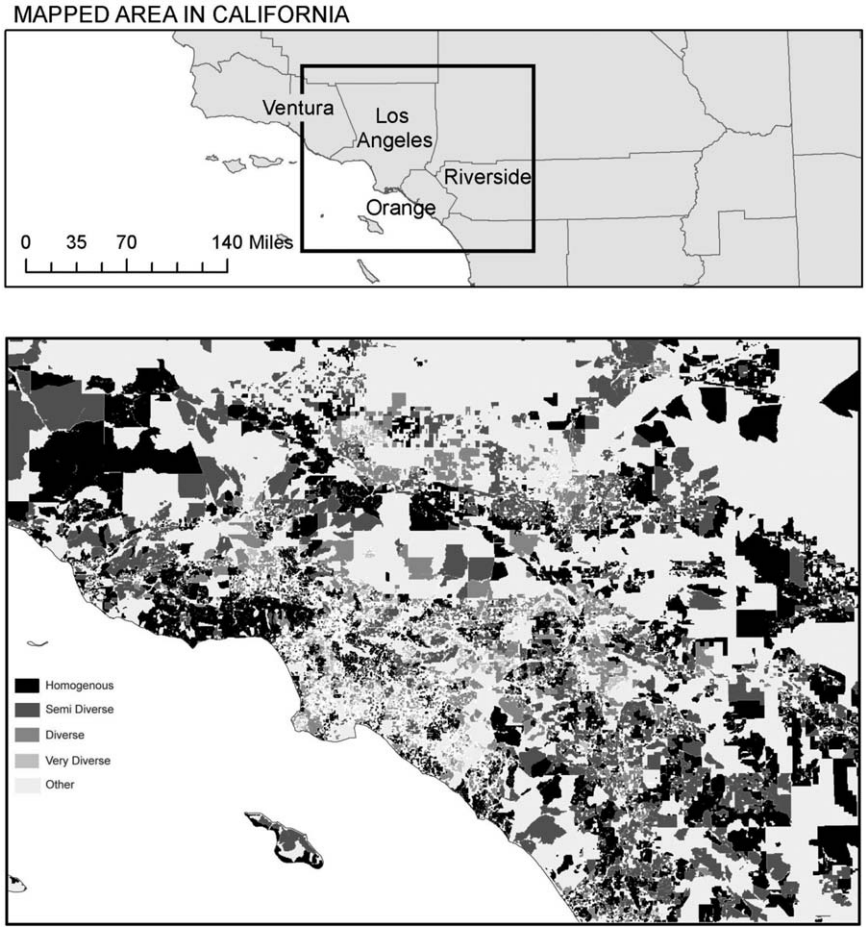
Much of the analysis of patterns of immigrant locations is based on tract data and moves between tracts. In this study I argue, following similar arguments about bespoke neighbourhoods by Johnston *et al.* (2007) that these abstract units are of limited value in assessing what is occurring in the complex ethnic patterns in multi-ethnic cities such as Los Angeles. Thus, I use a new technology to create block based neighbourhoods of relatively homogeneity/diversity. Specifically, I use the Equipop methodology (Östh 2014; Östh *et al.* 2014) to construct varying neighbourhoods from those immediately surrounding a block to varying levels of larger geography.

The technique involves calculating the ethnic composition of the nearest, 100, 1,000, 10,000 population sized neighbourhoods (k values where k is the size of the neighbourhood). I use Census block data from the 2010 decennial census which captures the neighbourhood characteristics at that point, near the end of the two surveys.

The classification of census blocks into neighbourhood types proceeds in three steps. First, the construction of bespoke neighbourhoods of different population size for every census block centre. The bespoke neighbourhoods are constructed by extending a buffer around each block centre until the buffer contains a total population of 12, 25, 50, 100, to 25,600, and 51,200 nearest neighbours. Thus, in every round, the buffer is expanded until the buffer population is doubled. For every census block, this results in 13 differently-sized bespoke neighbourhoods around that block. Second, the ethno-racial population composition of these bespoke neighbourhoods is computed. With four different ethno-racial groups (White, Black, Hispanic and Asian), and 13 differently-sized bespoke neighbourhoods the technique generates 52 different values, that is, the population share of Asian, blacks, Hispanics and White among the nearest 12, 25, 50, 100 … 25,600, and 51,200 neighbours. Third, the census blocks of the Los Angeles area are assigned to neighbourhood types using a k-means cluster analysis, a common approach that can make the interpretation of the resulting clusters easier (Jolliffe 2002). More detail is available at Östh *et al.* (2014).

The technique generated 20 different neighbourhood types. Because we are interested in the way in which detailed choices, at very precise levels of geography, are also choices for homogeneity or diversity the 20 clusters are grouped into a homogeneous category, a dominant one race but with other races (mixed or semi diverse) and two diversity categories – diverse and very diverse. The figure is presented for the Southern California region (Figure 1). In the homogeneous Black, Hispanic and White clusters the largest racial group constitutes around 70 per cent of the population or more. A second group of clusters (semi-diverse) have one dominating racial group (White or Hispanic) and one more relatively large minority group (Hispanic or White), but low shares for Blacks and Asians. A third group (diverse) of five clusters has a significant presence of at least three races but with one group dominant. A fourth group that can be designated as strongly mixed or very diverse, has all groups with shares considerably below 50%.

To draw out the importance of the spatial distribution of the groups and to contrast these locations I present the core of Los Angeles County in Figure 2. To contrast the locations of the different clusters I also

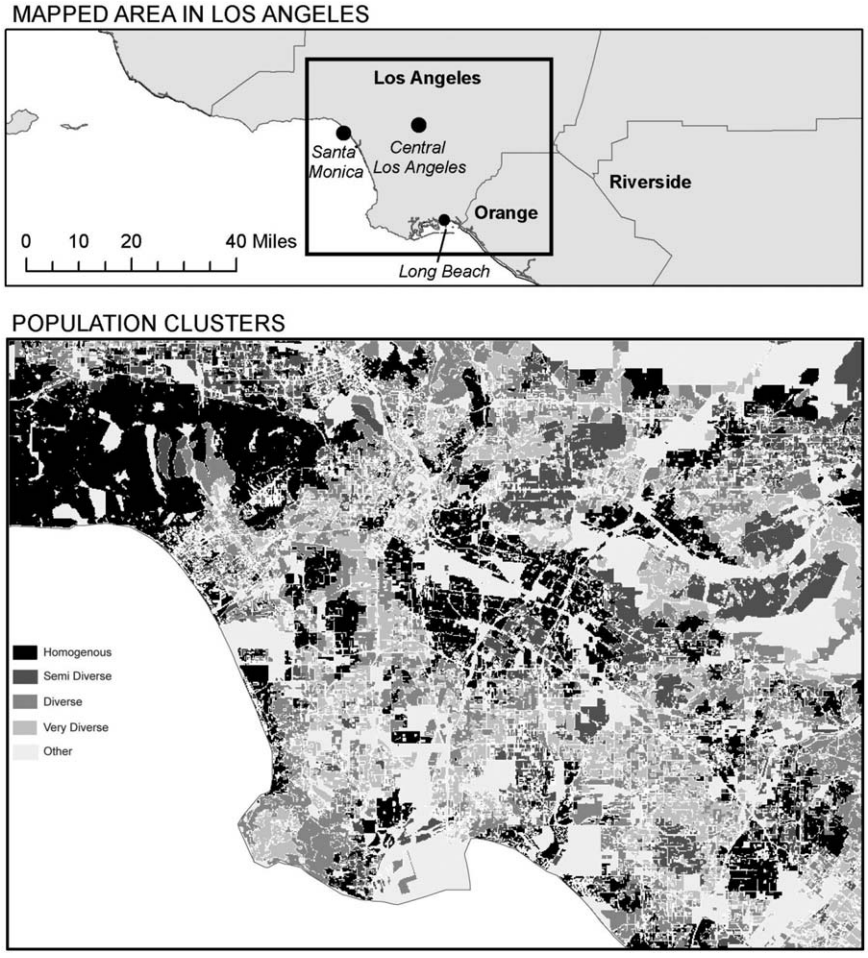


Source: Based on data in Clark *et al.* (2015).

Figure 1. *Neighbourhoods clustered into Homogeneous, diverse, semi-diverse and very diverse groupings.*

present separate maps of each of the four groupings (Figure 3). The homogeneous clusters are coastal (Whites) and central (Blacks) and in Eastern sections of the metropolitan area (Hispanics). The panels for semi-diverse, diverse and very diverse provide convincing evidence of just how diverse the metropolitan area has become. These separate maps of the diverse, semi-diverse and very diverse patterns emphasise the extensiveness of new patterns of residential mixing in the urban area of Southern California and Los Angeles in particular.

The following analysis captures the moves across this more complex representation of the residential fabric and in this sense the analysis comes closer to measuring the choices and decisions about where to move and the outcomes from residential mobility. The actual moves between these clusters is a more revealing measure of the choices than simply measuring whether immigrants move into a more White or more minority location based on a broad tract measurement. Recall even though we are reporting the outcomes in broad categories of homogeneous, diverse, semi diverse and very diverse, the exact choices are the moves to and from one of the clusters which make up these categorisations. It is a more revealing measure than simply measuring whether immigrants move into more or less 'Anglo' neighbourhoods.



Source: Based on data in Clark *et al.* (2015).

Figure 2. *Neighborhoods clustered into Homogeneous, diverse, semi-diverse and very diverse groupings In the core of the Southern California region.*

ANALYSING MOVES AND OUTCOMES

The analysis is divided into 4 sections and is reported in a set of tables of: (i) mobility outcomes (neighbourhood choices) for Wave 1 and Wave 2 combined; (ii) matrices of moves between levels of homogeneity and levels of diversity; (iii) models of socio-economic impacts on choice; and (iv) links between stated preferences and actual choice, about the composition of preferred neighbourhood ethnic mixing.

Mobility outcomes – As we know from a large body of research, households move and make decisions about where to live in response to family needs, as they seek housing to meet their requirements for shelter and to provide access to jobs, schools and urban services more generally (Clark & Dieleman 1996). The choices that households make are constrained by economics, the availability of credit and mortgages and by discriminatory practices though certainly less so than in the past. They also reflect the preferences that households have for the local composition of their neighbours. It is this last choice process that is central in the overall analysis and in the first section of the findings.

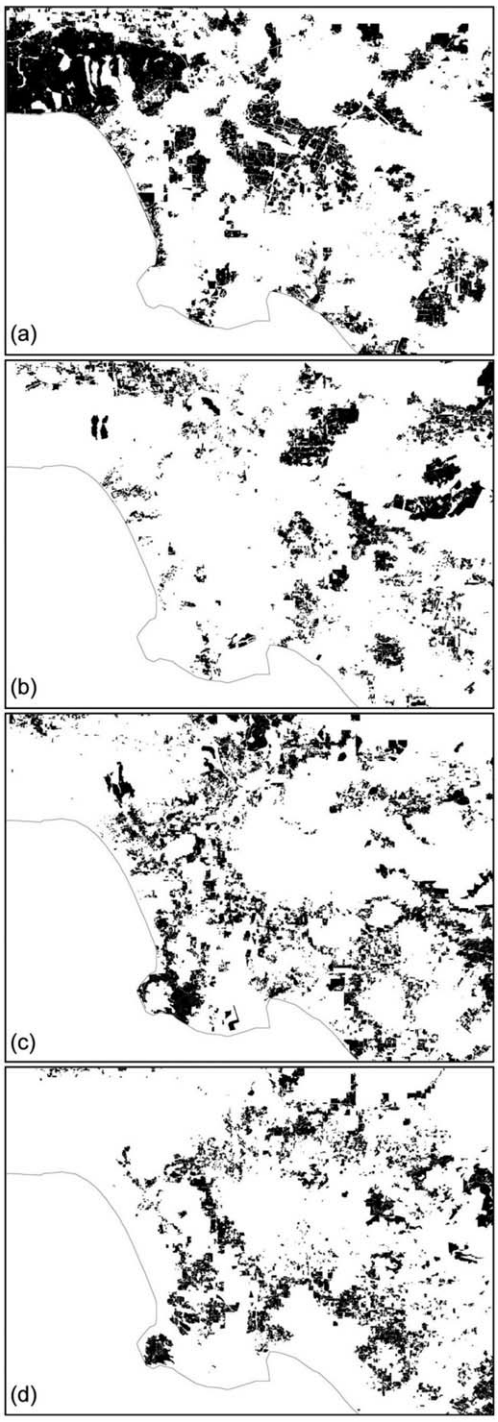


Figure 3. *Panels of (a) homogeneous (b) semi-diverse (c) diverse and (d) very diverse neighbourhoods.*

Table 2. *Percentage of each ethnic groups' neighbourhood choices for Los Angeles movers (Waves 1 and 2 combined).*

	Hispanic	Asian	Black	White
Very diverse	20.9%	61.2%	41.5%	23.9%
Diverse	28.9%	16.5%	34.7%	21.5%
Semi-diverse	4.7%	15.3%	3.4%	14.4%
Homogeneous	45.4%	7.1%	20.4%	40.2%
n	830	85	147	326

Source: LAFANS (Los Angeles Neighborhood and Family Survey).

I examine the selections for both waves combined across the four broad classifications by the level of diversity from homogeneous to very diverse. For a subset of the moves also I report the selection of homogeneous own race outcomes in the table (Table 2).

White and Hispanic groups choose to move to residential neighbourhoods that are about 40 to 45 per cent homogeneous of a similar race and ethnicity. Choosing homogeneous can mean choosing homogeneous own race or homogeneous other race. The choices for own race are about 40 per cent for Hispanic and only 31 per cent for whites. These choices for Whites are significantly different from even two decades ago. This is a fairly significant change from the choice processes of white households only two decades ago when almost 70 per cent chose own race white neighbourhoods in Los Angeles (Clark 1992). Clearly, the outcomes of the choice process are quite different in the multiethnic city in the 21st century. Although I do not explore the nature of demographic change across the neighbourhoods in this presentation, it is important to note that the decline in all Black neighbourhoods clearly has an impact on the distribution of choices available to these households.

Origins and destination choices – For the subset of movers for whom we have data on both origins and destinations at the block level (Wave 2 data), it is possible to construct conditional probability matrices of the likelihood of moving within or into homogeneous, semi-diverse, diverse and very diverse

Table 3. *Row probabilities of moves from origins to destinations Los Angeles (Wave 2 moves).*

All movers		Destination			
Origin	Homogeneous	Semi-diverse	Diverse	Very diverse	n
Homogeneous	0.587	0.087	0.257	0.07	230
Semi-diverse	0.193	0.333	0.263	0.211	57
Diverse	0.217	0.028	0.461	0.294	180
Very diverse	0.149	0.052	0.26	0.539	154
n	208	52	197	164	621
Hispanic movers	Homogeneous	Semi-diverse	Diverse	Very diverse	n
Homogeneous	0.580	0.074	0.072	0.074	176
Semi-diverse	0.240	0.320	0.240	0.200	25
Diverse	0.237	0.038	0.458	0.267	131
Very diverse	0.193	0.045	0.307	0.455	88
n	156	30	141	93	420
White movers	Homogeneous	Semi-diverse	Diverse	Very diverse	n
Homogeneous	0.595	0.143	0.214	0.048	42
Semi-diverse	0.238	0.381	0.143	0.238	21
Diverse	0.250	0	0.275	0.375	24
Very diverse	0.083	0.083	0.125	0.708	24
n	38	16	24	33	111
Black movers	Homogeneous	Semi-diverse	Diverse	Very diverse	n
Homogeneous	0.571	0	0.286	0.143	7
Semi-diverse	0	0	1.000	0	2
Diverse	0	0	0.620	0.280	21
Very diverse	0.111	0.037	0.333	0.519	27
n	9	1	26	21	57

Note: the n is small for black movers but the matrix is included for completeness. These are all moves in the Wave 2 sample.

neighbourhoods. I can produce these matrices for the total population, and for Hispanic movers and white movers separately (Table 3).[1] As expected, the conditional row probabilities demonstrate the relatively uniform probability of moving within similar levels of diversity or homogeneity across the matrices. Still, it is very clear that there is considerable movement from homogeneous to more diverse neighbourhoods in every case. This is most apparent for white households who have relatively high conditional probabilities of moving within, or into, diverse and very diverse neighbourhoods. It is true that the samples are small and there is a caveat that the second Wave of the Los Angeles family and neighbourhood survey had considerable attrition and that attrition is likely to be of households who moved. Thus, we must interpret these results with relative caution, but it is unlikely at the same time that the overall results would be substantially different with increased observations.

We can summarise the findings on origin and destination choices by considering the probability of moving to the same or to greater or less diversity (Table 4a). Approximately 50 per cent (over 60% in the case of

Table 4. *Percentage neighborhood choices for movers in Wave 2.*

(a) All moves

	Total	Hispanic	Asian	Black	white
Moved to same diversity	51.5	50.0	61.8	54.4	53.2
Moved to more diverse	28.2	28.6	26.5	19.3	30.6
Moved to less diverse	20.3	21.4	11.8	26.3	16.2
n	621	420	34	57	111

(b) Selected neighborhood choices

Hispanic movers	Percentage of origin total	Percentage of total
Moved within Hispanic majority	60.5	22.6
From Hispanic majority to less Hispanic	39.5	14.8
Hispanic move within HBW	48.6	12.4
Hispanic move from HBW to other	51.4	13.1
White movers		
Moved within White majority	51.9	12.6
From White majority moved to less White	48.1	11.7
White move within HBW	60.0	5.4
White move from HBW to other	40.0	3.7
Black movers		
Moved within HBW	73.7	24.6

Note: HBW = Hispanic, Black and White combinations (very diverse).

Asian households) move within the same level of homogeneity or diversity. However, what is most striking is a substantial proportion across all race/ethnic groups of movement to more diverse neighbourhoods. This is lowest for African-American households reflecting the relatively lower socio-economic status overall but still a substantial proportion of Black households move to greater diversity.

Some specific choice patterns by ethnicity confirm the general findings of the overall structure of choices, but provide some interesting information on the specific outcomes for different ethnic groups (Table 4b). Hispanic households overall have the highest likelihood of moving within Hispanic majority neighbourhoods, although these moves represent only a little over 20 per cent of all moves by Hispanics. Similarly, a high proportion of Hispanics moved within mixed neighbourhoods of Hispanics, Blacks and Whites. At the same time a very high proportion of Hispanics moved to less Hispanic neighbourhoods. For Whites, the story is similar with very small proportions of the total of White households moving within White majority areas, certainly a reflection of the changing demographic structure of the neighbourhoods in Los Angeles.

Models of choice and tests of sorting – A central part of the analysis in this paper is a test of the role of resources in the tendency towards integration by evaluating the residential choice behaviour of Hispanic and White households.[2] The dependent variable in each case is the choice of homogeneous own race neighbourhoods. The results in Table 5 report coefficients for Wave 1 and Wave 2 moves separately, and then for the combined sample of all movers by Hispanic and White.

For Hispanics, income is negative (families with more income do not choose own race neighbourhoods) and significant for both Wave 2 and the combined sample. Education and family status (child in the house) are similarly negative and significant for Wave 1,

Table 5. *Measuring socio-economic effects on the spatial choice of own race neighbourhood (dependent variable).*

	Wave 1		Wave 2		Combined	
	Estimate	Prob.	Estimate	Prob.	Estimate	Prob.
Hispanic (n=293)						
Age	0.0113	0.323	−0.0049	0.633	0.0037	0.613
Child in household	−0.6675	**0.070**	0.0774	0.801	−0.2824	0.210
Single parent	−0.0794	0.813	−0.0867	0.801	−0.1229	0.603
Family income	−6.71E–06	0.287	−0.0001	**0.003**	−0.0001	**0.001**
College education +	−1.1090	**0.052**	0.3881	0.445	−0.2142	0.562
Constant	0.1012	0.878	−0.072	0.893	0.0450	0.912
Pseudo R sq	**0.041**		**0.018**		**0.024**	
White (n=132)						
Age	−0.0061	0.722	0.0153	0.520	0.0067	0.600
Child in household	−0.4666	0.392	0.4425	0.465	0.0042	0.991
Single parent	0.6744	0.251	0.5979	0.553	0.5826	0.235
Family income	6.53E–06	**0.064**	0.0001	**0.018**	7.37E–06	**0.007**
College education +	0.4928	0.237	2.3251	**0.001**	1.2068	**0.001**
Constant	−0.9812	0.399	−4.3700	0.004	−2.5316	0.002
Pseudo R sq	**0.0490**		**0.2420**		**0.1010**	

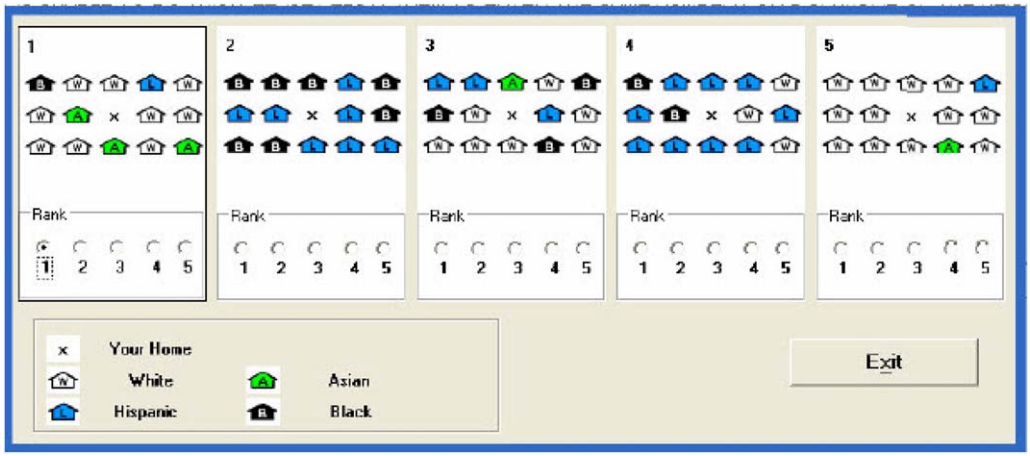
Note: Significant values < 0.10 are in bold.

suggesting that the college education variable is measuring resources indirectly in wave 1. That is families with more education are selecting non-own race neighbourhoods. In each case (either with income or education (college education) the outcomes increased the likelihood of choosing non homogeneous Hispanic neighbourhoods. This is what we would expect if the assimilation model is working, moves away from own race, often from lower income neighbourhoods, to neighbourhoods with larger populations of well-resourced and higher status households. As resources or status increase the likelihood of moving out of concentrated own race areas increases (Table 5).

The results for white choices shows that whites with more income and greater educational status move to areas which are more homogeneous White than the area they moved from, a reflection of sorting by income and status across the residential fabric. At the same time the tables of choices show that more than half of all Whites choose diversity at some level as shown in Tables 2 and 3. Unfortunately the sample size for Asian households is insufficient to conduct a formal test of residential choice for Asian households but we can draw attention to the tendency of Asian households to live in diverse areas and the 27 per cent who moved to more diverse areas as evidence of integrative tendencies (Table 4).

Reflecting on these outcomes and the direction of causality of course we cannot say that the higher income or more education caused the move from more own race to less own race, however, we can suggest that the greater resources enabled the transition. Whites in general are seeking greater homogeneity, though as we noted, there is considerable movement to more diverse neighbourhoods as is shown in the descriptive tables. Hispanics are also seeking diversity and neighbourhoods which are higher status. The models have modest levels of fit which further emphasises the complexity of the choice outcomes though it does not undermine the general tendency for minority households to select out of own race areas.

Preferences and choices – The final analysis takes up the question of the relationship between preferences and choices. The Wave 2 sample of the Los Angeles Family Neighborhood Survey asked questions about



Source: Los Angeles Family and Neighborhood Study.

Figure 4. *Neighborhood vignettes used in the preference analysis.* [Colour figure can be viewed at wileyonlinelibrary.com]

preferred neighbourhoods and provided a series of vignettes in which the household selected one of a different combination of whites, Hispanics, Asians and Blacks (Figure 4). The vignettes were designed to capture the distribution of the race, ethnic groups in Los Angeles County. In each case households' were offered multiple choices for their selections.

Households were given multiple choices for their preferred neighbourhood combination and Table 6 provides the first two of these

Table 6. *Comparing preferences and actual choices (%) for Own/Other Race Ethnicity (the actual choice is the same in each case).*

(a) First choices for stated preferences

	Homogeneous	Dominant (semi–diverse)	Mixed (diverse)	Very diverse
White preference	42.8	19.0	7.9	30.2
Actual choice	28.1	39.7	22.5	9.4
Hispanic preference	14.9	19.1	15.8	50.2
Actual choice	32.1	34.1	10.3	23.3
Black preference	0	27.5	22.5	50.1
Actual choice	19.4	22.2	19.4	38.9

(b) Second choices for stated preferences

	Homogeneous	Dominant	Mixed	Very diverse
White preference	39.7	23.8	17.5	20.6
Actual choice	28.1	39.7	22.5	9.4
Hispanic preference	20.1	23.0	25.4	30.6
Actual choice	32.1	34.1	10.3	23.3
Black preference	0	27.5	37.5	32.5
Actual choice	19.4	22.2	19.4	38.9

choices contrasted with the actual mobility behaviour for Whites, Hispanics and Blacks.[3] In each case we can examine the extent to which there is a match between preferences and behaviour. The preferences expressed from the survey line up reasonably well with the four categories – homogeneous, semi-diverse, diverse and very diverse. The choices from the survey response are categorised as homogeneous (80% one race), semi diverse 60 per cent own race – 40 per cent others and very diverse, 15 per cent own race 85 per cent others.

Classically, Whites expressed preferences for majority White neighbourhoods, Hispanics for majority Hispanic and Blacks for 50/50 Black and White mixed neighbourhoods. While Whites still have greater proportions who prefer and select majority White neighbourhoods, this is balanced by a significant proportion who choose diverse or very diverse neighbourhoods. In fact, the proportion of first choices by Whites, are only modestly larger for majority White neighbourhoods. For Hispanics, although the process of choice varies by the preference ranking (first and second preferences), it is clear that Hispanics are selecting neighbourhood which are less Hispanic and the actual behaviour reflects the choices by those mobile households. As I noted in the previous section this reflects a movement out of homogeneous Hispanic neighbourhoods. While the models document that resources matter, more research will be needed to explore the link between resources and outcomes.

The story about preferences and actual choices is similar for Black households and again is a significant change from the classic 50–50 choices that black households expressed in previous studies of residential preferences. In those studies, African-American households expressed strong preferences of 50–50 neighbourhoods or slightly more own race. In the data presented in Table 6 it is clear that although there is some expression of preference for majority black neighbourhoods the majority of the respondents select diverse or very diverse neighbourhoods.

At an initial level we can see these preferences as the foundation for the changes we observe in the residential fabric. The fact that there are many more diverse and very diverse neighbourhoods is an outcome of choice as directed by changing preferences. In fact, when we examine the distribution of actual choices across homogeneity and diversity we find that while between 40 and 60 per cent choose homogeneous or dominant neighbourhoods 20 to 25 per cent of Whites and Hispanics choose very diverse neighbourhoods and this is even higher for African-American choices.

What we see in the residential fabric is the outcome of preferences and choices constrained by income and the effect is a mixing across economic status. There are a wide range of the selections available to households in their residential relocation choices and they are being used in the actual mobility behaviour.

CONCLUSION: OBSERVATIONS ON SORTING AND CHOICE

The debate about diversity and integration is more than an academic debate about assimilation and incorporation it is a debate about the organisation of society itself. It is clear from the map of neighbourhood residential patterns that they are very different from even two decades ago in Los Angeles (and almost certainly for other multiethnic cities). While there are still clusters of majority White, African-American, Hispanic and Asian groups, the areas with only one race or ethnicity are declining and being replaced by combinations that vary from place to place within the metropolitan area. The questions which are being asked in this research relate to who moves into these varying combinations of races and ethnicities and to what extent those movements continue the mixing or create enclaves and separate residential areas. The results are consistent with recent research using UK data, that ethnicity matters but that the link between ethnicity and moving is complex (Van Ham & Feitjen 2008; Clark & Coulter 2015).

The evidence in this study is that the mobility is creating greater mixing across a variety of contexts. There is an increase in the mobile population in diverse and very diverse areas and a corresponding decrease in the movement into homogeneous areas. Overall, as expected there is movement within the same composition of homogeneity

and diversity (moves on the diagonal) but the proportion moving to greater diversity is 7–15 per cent greater than the moves to less diversity. Only in the case of Black households are there greater moves to less diverse areas. That said, we know that now nearly all African American households in the sample are already in substantially diverse areas. The movement to less diversity is still within mainly diverse areas. Of course it is important to reiterate that the results are based on a small sample.

Although there is still a tendency in some research to emphasise the overall persistence of segregation over time the research here goes against that prevailing view to suggest that there is considerable fluidity in the matrix of moves. It is correct that on average the levels of segregation for Hispanics are increasing modestly but this aggregate outcome masks the tendency of individual choices to more integrated settings. Again, in a note of caution we draw attention to the fact that the finding that moves to more integrated settings is based on small samples. Further research will enable us to firm up these conclusions on the changing residential mosaic.

With respect to the role of resources, Hispanic groups demonstrate moderately strong relationships between their socio-economic statuses and their neighbourhood contexts. Overall, the results suggest that spatial assimilation is occurring in the Los Angeles metropolitan context though it varies by whether we examine this process at local or community level contexts. Geography and scale matter in how we interpret spatial assimilation and specific attention to scale is a critical element of understanding the process of assimilation.

Both behaviour, that is actual moves, and preferences are consistent with great mixing in the residential mosaic. What we see in the patterns of ethnic composition is a reflection of both the mobility patterns themselves and their underlying preferences. Los Angeles is much more mixed using small scale geographies than is captured by using large scale census tracts. A more nuanced construction of neighbourhoods reflecting the composition at different scales creates a different picture than is created by mapping some proportion Black, minority or non-minority. Neighbourhoods at local scales can be homogeneous but at even community scales there is considerable ethnic mixing. The picture of complexity is an outcome of behaviour and preferences constrained by resources.

Are we experiencing the end of racial and ethnic segregation? Probably not, though the patterns are much more complex than two group discussions or unidirectional segregation. Segregation may be increasing for some groups, declining for others and much of the outcome depends on scale, timing and demographic change.

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Notes

1. The movers in Wave 2 are those Wave 1 respondents who were re-interviewed. There was attrition between the waves with unknown effects on the choice outcomes. However, the reported probabilities in the matrices are consistent with other studies of ethnic choices and it is unlikely that the tables would be substantially different with larger samples.
2. Unfortunately, the sample sizes for Asians and Blacks are not sufficient to construct logit models of choice.
3. The responses for Asian households were too limited to provide reliable data for households that moved.

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