Urban Income Inequality and the Great Recession in Sunbelt Form: Disentangling Individual and Neighborhood-Level Change in Los Angeles

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New social transformations within and beyond the cities of classic urban studies challenge prevailing accounts of spatial inequality. This paper pivots from the Rust Belt to the Sunbelt accordingly, disentangling persistence and change in neighborhood median income and concentrated income extremes in Los Angeles County. We first examine patterns of change over two decades starting in 1990 for all Los Angeles neighborhoods. We then analyze an original longitudinal study of approximately six hundred Angelenos from 2000 to 2013, assessing the degree to which contextual changes in neighborhood income arise from neighborhood-level mobility or individual residential mobility. Overall we find deep and persistent inequality among both neighborhoods and individuals. Contrary to prior research, we also find that residential mobility does not materially alter neighborhood economic conditions for most race, ethnic, and income groups. Our analyses lay the groundwork for a multilevel theoretical framework capable of explaining spatial inequality across cities and historical eras.

Keywords: income inequality, neighborhoods, residential mobility, Los Angeles

In the public imagination, the idea of the inner city appears suspended in a stylized time and place. Images of urban poverty, racially segregated housing projects, drug dealers, violence, and crumbling housing in places like Newark, Baltimore, the South Bronx, Detroit, and Chicago from the late 1960s to the early 2000s still resonate in the media, brought home dramatically in the television series *The Wire* and, more recently, in high-profile coverage of riots in Baltimore (Shane 2015). Scholars have likewise focused intently on the "urban crisis"; foundational research on urban poverty and inequality in the latter half of the twentieth century is dominated by social upheavals in the cities of the North and Midwest (for example, Sugrue 1996; Wilson 1987; Liebow 1967; Suttles 1968; Stack 1974).[1]

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 Sampson, Robert J., Jared N. Schachner, and Robert D. Mare. 2017. "Urban Income Inequality and the Great Recession in Sunbelt Form: Disentangling Individual and Neighborhood-Level Change in Los Angeles." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 3(2): 102–28. DOI: 10.7758/RSF.2017.3.2.05. Originally presented at the Russell Sage Foundation Conference "The Spatial Foundations of Inequality" on February 12, 2015. We thank the RSF conference participants, special volume editors, and anonymous reviewers for helpful comments on a prior draft. This article was supported in part by a grant from the Hymen Milgrom Supporting Organization. Direct correspondence to Robert J. Sampson at rsampson@wjh.harvard.edu, Department of Sociology, Harvard University, William James Hall, 33 Kirkland St., Cambridge, MA 02138; Jared N. Schachner at jschachner@fas.harvard.edu, Department of Sociology, Harvard University, William James Hall, 33 Kirkland St., Cambridge, MA 02138; and Robert D. Mare at mare@ucla.edu, Department of Sociology, UCLA, Haines Hall, 375 Portola Plaza, Los Angeles, CA 90095.

1. Interestingly, the same can be said of classic studies of the ghetto in the prewar era (for example, Drake and Cayton 1945; Du Bois 1899; Zorbaugh 1929).

The location and theoretical assumptions of the urban poverty paradigm of the late twentieth century can nonetheless be challenged on at least three major fronts. One challenge comes in the form of new social transformations and crises that the cities of classic studies have undergone. Deindustrialization, the Great Migration, violence, the growth of concentrated poverty among African Americans and population loss defined an earlier era, but many American cities in the early twenty-first century have witnessed increases in population, concentrated affluence, gentrification, and the black middle class; declines in violence; rapid immigration from around the world; the Great Recession; and rising income inequality. Referencing one of the biggest changes in American cities, the historian Michael Katz has gone as far as to argue that the explosion of immigration has "irrevocably smashed the black/white frame" (2012, 100).

A second challenge follows from the first. If the Great Migration from the South to the North was the demographic force of its day, international migration and internal U.S. migration away from the North and Midwest have spawned rapid growth and diverse settlements in the Sunbelt that look and feel very different from the places made famous by the Chicago School of urban sociology. Even the epithet of Chicago as America's second city holds no more; Los Angeles (L.A.) is now the second most populous city in the country and one of the most diverse in the world. Recognizing this demographic and structural shift, inequality scholarship has itself increasingly migrated south and west, exemplified by the Multi-City Studies of Urban Inequality that included Los Angeles and Atlanta (Bobo et al. 2002; O'Connor, Tilly, and Bobo 2001) and a growing body of research on Los Angeles (for example, Halle 2003; Halle and Beveridge 2013; Hipp et al. 2012; Charles 2009). These and other studies have examined the concentration of poverty and processes of racial segregation in nontraditional urban forms.[2] Although much progress has been made, research on spatial inequality in the Sunbelt, in general—and Los Angeles, in particular—trails its predecessors in scope.

The third and perhaps largest challenge is analytic—isolating the mechanisms of urban change and understanding whether and how new social transformations have reshaped the fundamental spatial structure of earlier urban inequality. Whether the focus is on the ends of the income distribution or the loss of middle-class and mixed-income neighborhoods, changes in the spatial and socioeconomic distribution of populations in urban areas reflect a complex mixture of changes in income distributions of individuals and households, patterns of socioeconomic mobility, the residential choices of individuals, and the rise and fall of neighborhoods. The problem deepens when we consider that these components of change reflect both long-term trends, such as the drift to higher levels of income inequality in the United States and large-scale immigration over the past few decades, and shorter-term shocks, such as the financial crises and the subsequent Great Recession during the past decade. Although these sources and components of change are well recognized as general principles, how they fit together analytically and their relative importance have been understudied. In a seeming paradox, moreover, the fact of social change does not necessarily imply the overthrow of old urban hierarchies. Robert J. Sampson (2012) and Sampson, Robert D. Mare, and Kristin L. Perkins (2015) show that, at least in Chicago, changes in neighborhood inequality across recent decades were strongly shaped by historical neighborhood inequalities. As a

2. A detailed review is beyond the scope of this paper, but a related challenge rests on the idea that cities such as Los Angeles are so different in urban form that they demand a new paradigm. In the late twentieth century, this notion gave rise to the L.A. School—a group led mainly by geographers and cultural theorists who emphasized how forces such as postmodern culture, technology, and urban sprawl had "decentered" the city and elided neighborhood boundaries. Even though these claims have been contested (Abbott 2002) and proponents admit to the lack of a unified theoretical perspective or clear hypotheses (Dear 2001, 2002), the importance of urban scholars turning their attention to cities of the future, of which Los Angeles is a microcosm, if not the claimed paradigmatic metropolis, is hard to deny.

general theoretical matter, questions of persistence and change in income segregation, especially whether changes in income segregation map onto the "old inequality" in the nation's centers of growth and immigrant diversity, are central to our understanding of the spatial foundations of inequality.

This paper addresses these challenges by presenting a multilevel framework on the spatial and temporal dynamics of neighborhood income inequality in Los Angeles County from 2000 to 2013. A test bed for the future of American urban areas, Los Angeles County is the nation's most populous and arguably most ethnically diverse; immigrants from around the world account for a third of its over ten million residents. The region also reflects the car-dominated suburban sprawl typical of Sunbelt cities. Our analysis is based on an original longitudinal study with three waves of data that provide theoretically motivated measures at the individual and neighborhood levels, before and after the Great Recession. Specifically, we combine two waves of data from the Los Angeles Familiy and Neighborhood Survey (L.A.FANS) with a new follow-up study, providing longitudinal data on the residential mobility of families and individuals in Los Angeles County from 2000 to 2013. By integrating these data with the decennial census and American Community Survey for 1990, 2000, and 2008 to 2012, we reveal the distributions of neighborhood income extremes (poverty and affluence) and of mixed middle-income neighborhoods and develop an analytical model that disentangles stability and change in neighborhood income status. We also assess whether changes in exposure to different income levels are induced by individual mobility (residential and socioeconomic) or neighborhood-level change, and how trajectories of change in neighborhood income status vary by race, ethnic, and income groups, as well as before and after the Great Recession. This simultaneous exploration of neighborhood-level and individual-level spatial inequality patterns in L.A. during the early twenty-first century provides a novel analytic framework that reshapes prevailing understandings of urban social processes generated primarily from studies conducted within northeastern and midwestern cities. Moreover, our analysis raises additional questions—and proposes a corresponding set of hypotheses—that lay the groundwork for a multilevel framework capable of illuminating the particular mechanisms responsible for the persistence of, and variation in, spatial inequality's structure across cities and historical eras.

SPATIAL DYNAMICS IN THE AGE OF INCOME EXTREMES

The rising concentration of income at the very top of the distribution has generated considerable attention among scholars and the public at large. It is well known, for example, that the top 1 percent of earners account for an increasing share of all income (Piketty 2014). Although not with the same visibility, neighborhood-level inequality has come under scrutiny as well. Whereas William Julius Wilson emphasized the growth of concentrated poverty (1987), the simultaneous concentration of affluence gives meaning to what Douglas Massey calls the "age of extremes" in income segregation (1996). It is not that Wilson's focus is no longer relevant; rather, middle-income neighborhoods appear to be declining (Booza, Cutsinger, and Galster 2006), and both concentrated poverty and concentrated affluence in neighborhoods are on the rise (Reardon and Bischoff 2011).

Yet systematic empirical research on the dynamics of mixed-income neighborhoods is relatively rare and the studies that do exist are typically based on northeastern or midwestern cities (Joseph and Chaskin 2012; Chaskin and Joseph 2015). Moreover, the bulk of research and commentary on income mixing and concentrated poverty has focused on the effects of neighborhoods on individual outcomes, leaving aside mechanisms of persistence and change in income segregation and income mixing. A key theoretical question at the individual level is whether change is induced by sorting across neighborhoods (movers) or change within neighborhoods around those individuals who do not move (stayers). This distinction is crucial to understanding mechanisms of change (Sampson and Sharkey 2008). As also noted by Xavier de Souza Briggs and his colleagues (2009) and by Sampson, Mare,

and Perkins (2015), residential mobility can sustain or undermine mixed-income neighborhoods and determine exposure to concentrated poverty or affluence.

We overcome these limitations by integrating individual and aggregate change, proposing a series of theoretically motivated questions on neighborhood-level and individual-level mobility, defined both by neighborhood income levels and the degree to which neighborhoods contain mixed-income populations. Our first set of analyses begins at the neighborhood level. We examine the patterns of stability and change in Los Angeles County neighborhoods, focusing specifically on the distributions of neighborhood income levels and income mixing. The thesis of enduring neighborhood effects predicts that neighborhoods are quite durable in their economic status, especially at the top and bottom, and as a result will largely retain their relative positions (Sampson 2012). Existing research is less clear on predictions about the stability of income mixing in middle-class neighborhoods, although recent research from Chicago (Sampson, Mare, and Perkins 2015) finds that mixed-income neighborhoods are rather fluid over time. In a city such as Los Angeles, which has less racial segregation and arguably weaker neighborhood boundaries than Chicago or other older industrial cities, it is reasonable to predict that mixed-income neighborhoods are even more changeable. We assess this prediction by evaluating the degree to which mixed middle-income neighborhoods are stable over time (see Galster, Booza, and Cutsinger 2008). Put differently, are mixed-income neighborhoods in Los Angeles transitory states that neighborhoods pass through as they move from concentrated affluence to concentrated poverty, or the reverse? In addressing this set of questions, we examine whether patterns of neighborhood mobility were similar throughout the 1990 to 2013 period or whether they differ between the relatively prosperous 1990s and the Great Recession era, and how patterns of neighborhood mobility for Los Angeles differ from the patterns for all American cities and traditional cities like Chicago (Williams, Galster, and Verma 2013).

The second and major focus of our paper is on persistence and change across neighborhood types for individuals in Los Angeles County from the late 1990s to 2013. Here we exploit fine-grained data from a new follow-up to L.A.FANS that permit us to answer the following questions motivated by prior theory and research: Do individuals tend to remain within their neighborhood income stratum, with regard to both level of income and degree of income mixing, or is there substantial upward and downward mobility? Do these patterns of change among individuals vary between the relatively prosperous late 1990s and early 2000s and the deep recession of the late 2000s? To what degree are patterns of change brought about by the residential mobility of individuals or the mobility of neighborhoods? For example, to what extent are changes induced by individuals staying put while their neighborhoods change around them rather than by individuals moving neighborhoods? Another kind of individual mobility is socioeconomic: to what degree are patterns of individuals' residential mobility across neighborhood types due to changes in their socioeconomic or family conditions? Posing these questions with our data allows us to assess the relative merits of competing hypotheses—upward mobility in income or education counteracts income inequality's spatial structure, or reinforces and exacerbates inequality's already strong hold.

In conducting our analysis, we are guided by theory and evidence on the link between the spatial foundations of income inequality and racial stratification. A long-standing finding in the United States is that black disadvantage relative to whites is sustained in large part by the connection of concentrated poverty and segregation (Massey and Eggers 1990; Sharkey 2013). At least in Chicago, the black-white frame of whites at the top and blacks at the bottom (and Latinos in between) is replicated even as people move to new neighborhoods (Sampson and Sharkey 2008). But little is known about how the individual-level neighborhood income status trajectories of Latinos, Asians, and immigrants compare to those of African Americans in a rapidly growing and diverse metropolis such as Los Angeles. A reshuffled hierarchy of race-ethnicity, or

perhaps something more like a jumble among nonwhite groups, might be expected by scholars such as Michael Katz (2012) and Michael Dear (2002). By contrast, the literature on enduring neighborhood effects and racial segregation argues that residential selection patterns are part of the process of inequality reproduction, leading to the general prediction that the relative positions of race and ethnic groups by neighborhood income status will be largely persistent over time (Sampson 2012). We assess these hypotheses for whites, blacks, Latinos, and Asian Americans, adjusting for immigrant status (first, second, and third generation). We also account for other possible confounding factors highlighted in prior studies, such as changes in homeownership, family size, and marital status. Finally, we place special emphasis on patterns of change in the first part of the 2000s, when the economy was robust relative to the Great Recession, leveraging the fact that our second wave of data collection concluded just before the economy imploded in 2008 and our third wave of data collection was carried out between 2011 and 2013.

STUDY DESIGN

The larger project in which this study is embedded is the Mixed Income Project (MIP), which was designed, in part, to allow detailed examination of neighborhood context, residential mobility, and mixed-income housing in Los Angeles and Chicago. The two anchor studies for the MIP are the Project on Human Development in Chicago Neighborhoods (PHDCN) and the Los Angeles Family and Neighborhood Survey (L.A.FANS). The PHDCN and L.A.FANS are widely recognized for rich longitudinal data on neighborhoods and on educational, health, and behavioral outcomes, especially for children and adolescents in PHDCN and adults in L.A.FANS. The MIP design allows us to study the dynamics of income environments in a newer Southwest city fundamentally different in urban form and composition than the older Rust Belt urban context exemplified by Chicago.

L.A.FANS is a multilevel longitudinal study of children, families, and communities in Los Angeles County originally conducted under the direction of Anne Pebley of UCLA and Narayan Sastry at the University of Michigan with the sponsorship of the RAND Corporation (Sastry et al. 2006). Wave 1 of the survey was collected in 2000 and 2001 and consisted of a probability sample of sixty-five neighborhoods (census tracts) within L.A. County and—within neighborhoods—a sample of blocks within tracts, a sample of households within blocks, and a sample of individuals within households. Neighborhoods were stratified by poverty status: very poor (highest decile of percent poverty distribution), poor (next three deciles of the percent poverty distribution), and nonpoor.[3] Households with children (persons under eighteen) were oversampled and constitute 70 percent of the sample. From sampled households, the survey interviewed one randomly selected adult and one randomly selected child, the primary caregiver of the child (who might or might not be the same person as the randomly selected adult), and a randomly selected sibling. Within childless households, one member was selected as respondent, denoted as the randomly selected adult. Of the 4,110 households selected for the L.A.FANS sample, 3,085 households residing in sixty-five census tracts ultimately completed rosters in wave 1. Of the 3,085 randomly selected adults within these households, 2,620 (85 percent) completed an adult interview. The unweighted wave 1 adult sample was 25 percent white, 56 percent Latino, 9 percent black, and 7 percent Asian American.

Between 2006 and 2008 (wave 2), interviewers from RTI International attempted to reinterview the same respondents if they still lived in Los Angeles County. Ultimately, wave 2 interviews were conducted with 1,218 of the eligible 1,992 randomly selected adults who

3. From this grouping, twenty very poor, twenty poor, and twenty-five nonpoor tracts were selected. Subject to stratification, tracts were selected proportional to their population size. Within tracts, blocks were selected proportional to their population sizes. The survey consisted of 439 sampled blocks and an average of 6.6 inhabited blocks per tract. An equal number of households—fifty—were targeted in each tract.

completed a wave 1 interview (61 percent).[4] Extensive interview information was collected from these respondents to complement the detailed battery of items from wave 1, including a retrospective log of everywhere they had lived over the interim years. More than 90 percent of wave 2 interviews were completed before the economic crash of September 2008.

The MIP follow-up study (wave 3) attempted to locate and reinterview a random probability sample of approximately 1,500 participants (randomly selected adults, primary caregivers, and children) from the earlier L.A.FANS. The Los Angeles field operation first assigned selected respondents to a telephone survey center for interviews. Cases that were not interviewed by telephone were transferred to experienced field interviewers in the Los Angeles area. The final response rate was 75 percent of eligible participants, for a combined sample of 1,032. Given the approximately half-dozen years that lapsed since last contact at wave 2, the final yield results compare well with other research on contemporary urban settings.

Our main analytic focus is neighborhood change over the course of the study, which, as we argue, is brought about in part by residential mobility behavior. Because of this focus, we examine the neighborhood income trajectories of adults (with and without children), leading to an analytic file of 612 randomly selected MIP respondents who were adults (eighteen and older) during the initial L.A.FANS wave 1 interview and who were confirmed as living within L.A. County during their wave 2 and MIP interviews.[5] We then integrate tract-level U.S. census data from 2000 and American Community Survey (ACS) data from 2005 to 2009 and 2008 to 2012.[6] With this strategy, we match census data to the year of L.A.FANS and MIP data collection—Census 2000 for wave 1, ACS 2005–2009 for wave 2, and the ACS 2008–2012 for wave 3.

MEASURES

Our primary neighborhood outcome is *median family income* measured in year 1999 dollars.[7] Median family income provides a summary indicator of neighborhood quality and resource potential with a simple metric. We thus define median income quintiles for census tracts within Los Angeles County based on all U.S. census tracts within counties that are at least partly within a metropolitan statistical area (MSA),[8] excluding Puerto Rico and tracts with fewer than fifty families, at four points in time:

4. Among the 3,085 randomly selected adults from wave 1, 2,766 were released for wave 2; the remaining 319 cases were not released primarily because no individual interviews were completed within their households. An additional 145 of released cases were later deemed ineligible due to death, incarceration, institutionalization, physical or mental incapacity, or language barriers. Of the remaining 2,621 released cases, 2,109 still lived within Los Angeles County and 1,992 of these had completed a wave 1 interview.

5. We thus set aside dependent children under eighteen (N=300) at baseline. We also set aside new entrants from the refresher sample (N=89) and cases with missing or incorrect geocoding information or insufficient information to generate attrition weights (N=31). Future papers will focus on child mobility (through moves with and without their parents) and how refresher cases differ from baseline.

6. Given that census tracts are redrawn every decade by the Census Bureau, tracking neighborhood change over a ten-plus-year timeframe requires preserving a time-invariant set of tract boundaries. To this end, we use the 2000 census tract boundaries for our analyses, given that this is when the L.A.FANS survey began. To translate the ACS 2008–2012 neighborhood-level data, which applies 2010 tract boundaries, into estimates for the 2000 tract boundaries, we use the Backwards Longitudinal Tract Data Base's interpolation code (Logan, Xu, and Stults 2014). For analyses that relied on the 1990 census, we use the Neighborhood Change Database from GeoLytics to create estimates for 2000 boundaries (Tatian 2003).

7. We use 1999 dollars, the year the 2000 Census uses to calculate median family income.

8. We base our median family income quintiles on national MSA census tracts (excluding Puerto Rico and tracts with family populations below fifty)—rather than all census tracts (which would include rural areas)—because they constitute a more accurate basis of comparison for Los Angeles County, which is particularly urbanized. This national standard enables us to make direct comparisons of neighborhood-level trends in Los Angeles

Census 1990, Census 2000, ACS 2005–2009, and ACS 2008–2012. This approach enables us to track L.A. neighborhood trajectories relative to each other and relative to the national distribution simultaneously.

To meet our goal of studying income mixing in addition to income levels, we measure the degree of mutual exposure of lower- and higher-income persons within a census tract. Following Massey (2001), we define the *Index of Concentration at the Extremes*:

$$\text{ICE} = \frac{A_i - P_i}{T_i},$$

where A is the number of affluent residents in neighborhood i, P is the number of poor residents, and T is the total number of residents. ICE can range from –1 (all residents are poor) to 1 (all residents are affluent). Greater income mixing, in the form of a more even balance of the poor and affluent, typically in middle-class areas, is centered at zero. To determine cutoffs for classifying families as affluent or poor, we use the national upper- and lower-income quintiles of family income, respectively, constructing an ICE score for each census tract in our analytic sample at four points in time: Census 1990, Census 2000, ACS 2005–2009, and ACS 2008–2012.[9]

For each of these two dimensions of neighborhood income, we construct mobility tables for both neighborhoods and individuals. We measure neighborhood transitions across nationally determined median family income and ICE categories between Census 1990 and Census 2000 and between Census 2000 and ACS 2008–2012. These analyses illuminate the distribution of L.A. neighborhoods before and during the period in which the L.A.FANS and MIP surveys were fielded. At the individual level, we construct mobility tables for changes in median family income and ICE of respondents' neighborhoods between Census 2000 and ACS 2008–2012, aligned with L.A.FANS wave 1 and the MIP survey (wave 3). Our focus on quintiles comports with prior research on income mobility at the individual level (Chetty et al. 2014) and neighborhood level (Sampson, Mare, and Perkins 2015).

Our demographic measures consist of the respondent's *age*, *sex*, and *race-ethnicity*. The latter is coded with indicator variables signifying whether the respondent is white (the reference group), black, Latino (or Hispanic), Asian–Pacific Islander, or a member of another racial or ethnic group (for example, Native American, multiracial). The respondent's *immigrant generation* consists of indicator variables denoting one's status as first-generation immigrant (born outside the United States), second-generation (mother born outside the United States), or third-generation or higher (reference group). Length of residence is defined as the *duration of residence at the respondent's wave 1 location* in years.

Our time-varying covariates track key changes in respondents' household structure and socioeconomic status (SES), as well as residential location, at each wave of the survey. We measure the *employment status* of the respondent with a binary indicator (working or not working) and the respondent's *total household income*, including earned income, asset income, and transfers, using five indicator variables that indicate whether the total income is below $14,000; $14,000 to 24,999; $25,000 to 39,999; $40,000 to 74,999; or $75,000 and above, all in constant 1999 dollars. *Educational attainment* is a time-varying metric that consists of five binary variables indicating completion of primary school or less (Grade 6 or lower—the reference group), some high school short of

County and other urban contexts, like Chicago. However, the tract quintiles for Los Angeles County and the United States are similar, ensuring comparable substantive results in our analysis. For example, the lowest quintile in 1990 for median income is <$24,422 in L.A. and <$25,863 in urban areas nationally; in 2008–2012, the highest quintile is $97,927+ in L.A. and $93,981+ nationally. Note that quintiles are calculated based on nominal dollars.

9. ICE is robust to extremely high (and low) incomes within the top (and bottom) fifths of the family income distribution, whereas other plausible measures—including the Gini index of income inequality and the interquartile range for each tract—are not (for additional detail on our rationale and validation evidence for ICE, see Sampson, Mare, and Perkins 2015).

twelfth grade, twelfth grade or a high school degree, some college (including vocational school and A.A. degrees), or a B.A. and above. Additional time-varying measures of household structure–SES include *homeownership*; the *total number of children* residing in the household; and the respondent's *marital status*, which consists of indicator variables denoting whether the respondent is not married and not cohabiting (the reference group), married and cohabiting with spouse or partner, or cohabiting with a nonspouse.

To glean the impact of *mobility* on neighborhood outcomes, we include binary variables indicating whether the respondent stayed within the same tract (the reference group) or moved across tracts between waves 1 and 2 and between waves 2 and 3. To discern whether a core-periphery mobility pattern obtains, we also use a binary indicator variable to indicate *residence within central Los Angeles* or outside this area (the reference group) at each wave of the survey, along with indicators for whether the respondent moved from within central L.A. to another region of the county between waves 1 and 2 and between waves 2 and 3.[10]

We address missing data through two strategies: attrition weights and imputation. To adjust for any bias produced by panel attrition, we model the probability that individuals exited the survey at each wave and then weight all individual-level data based on the product of the inverse probability of attrition between waves 1 and 2 and waves 2 and 3, as well as sampling weights designed to adjust for the original sampling design of L.A.FANS, which stratified on neighborhood poverty status and household structure (the presence of children).[11] Fortunately, aside from attrition, missing data on key variables among adult MIP respondents is relatively infrequent (<5 percent). Of these variables, only one contains a concerning rate of missing data: total household income at wave 3 (16 percent). We therefore impute missing values of this variable by using our key covariates to generate predicted wave 3 household income levels. This approach assumes that the data are missing at random, conditional on observed covariates in the imputation model (Norholdt 1998; for details on the imputation of income and assets for waves 1 and 2, see Peterson et. al. 2012).[12] Weighted prevalence data on neighborhood outcomes and individual covariates are presented in table 1.

NEIGHBORHOOD-LEVEL TRANSITIONS

We begin with basic but important questions about the temporal nature of neighborhood-level income inequality. Table 2 reveals a strong pattern of persistence at the extremes of neighborhood median income in the 1990s. Indeed, 70 percent of affluent (top fifth) neighborhoods and a staggering 97 percent of poor (lowest fifth) neighborhoods remained in the same category across the decade. Considerably

10. We assign the central L.A. residence indicator variable based on a schematic map produced by the City of Los Angeles defining eight economic regions of Los Angeles County that are also widely recognized among area residents: Central Los Angeles, San Fernando Valley, San Gabriel Valley, Gateway Cities, South Bay, Westside Cities, Santa Clarita Valley, and Antelope Valley. According to this map, Central Los Angeles spans roughly from La Brea Avenue to the west, the 101 freeway to the east, the Hollywood Hills to the north, and Slauson Avenue to the south. At each wave, we use respondents' municipality and zip code to designate whether they resided within or outside of these boundaries.

11. To account for attrition between waves 2 and 3, we estimate a logit model of the probability of attrition at wave 3, based on respondents' race-ethnicity, age, immigrant generation, wave 1 household income, and wave 1 neighborhood income composition. We then calculate the inverse probability of each subject's response and standardize by the mean to generate final attrition weights. We multiply the stratification weights and attrition weights for waves 1 and 2 and waves 2 and 3 to produce the final weight (for further description of the construction of wave 2 attrition weights, see Peterson et al. 2012, 43–46; Sastry and Pebley 2010).

12. The imputation model for wave 3 total household income includes all time-varying covariates examined in this paper, in addition to age, sex, race-ethnicity, and immigrant generation. After removing negative predicted values, we replace all missing wave 3 total household income values with the values predicted by the imputation model. This approach reduce the rate of missing data on wave 3 total household income from 16 to 4 percent.

Table 1. Descriptive Statistics

Variable	Mean	SD	Minimum	Maximum
Outcome				
Neighborhood median income, in 1999 dollars (wave 3)	51,742	26,807	7,623	169,975
Index of concentrated extremes (wave 3)	0.06	0.31	−0.73	0.76
Demographics				
Age	41.3	14.4	18	82
Sex, 1 = female	0.54	0.50	0	1
Race-ethnicity				
White	0.38	0.49	0	1
Latino	0.38	0.49	0	1
African American	0.05	0.21	0	1
Asian or Pacific Islander	0.16	0.36	0	1
Other	0.03	0.18	0	1
Immigrant generation				
First generation	0.49	0.50	0	1
Second generation	0.07	0.25	0	1
Third generation or higher	0.44	0.50	0	1
Household structure-SES				
Total household income, in 1999 dollars				
Below $14,000	0.17	0.38	0	1
$14,000 to 24,999	0.19	0.39	0	1
$25,000 to 39,999	0.16	0.37	0	1
$40,000 to 74,999	0.26	0.44	0	1
$75,000 or more	0.21	0.41	0	1
Unemployment, 1 = unemployed	0.31	0.46	0	1
Respondent's education:				
Primary school or less	0.10	0.29	0	1
Some high school	0.13	0.34	0	1
Completed twelfth grade	0.21	0.41	0	1
Some college (includes A.A.)	0.27	0.44	0	1
B.A. or above	0.30	0.46	0	1
Homeownership, 1 = homeowner	0.49	0.50	0	1
Marital status				
Not married and not cohabiting	0.38	0.49	0	1
Married and with spouse/partner	0.55	0.50	0	1
Cohabiting with non-spouse	0.06	0.24	0	1
Number of children in household	1.11	1.36	0	7
Residential mobility				
Length of residence at wave 1 (years)	7.92	8.51	0	44
Mobility between waves 1 and 2, 1=moved	0.39	0.49	0	1
Mobility between waves 2 and 3, 1=moved	0.26	0.44	0	1

Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: L.A.FANS-MIP Longitudinal Study, adult respondents (N=612; weighted). Means for time-invariant variables are at wave 1 unless otherwise indicated.

Table 2. Neighborhood-Level Transitions in Median Family Income, 1990 to 2000

	1990 Median Family Income Quintiles					
	1	2	3	4	5	Total
2000 Income Quintiles						
1	445	185	31	0	0	661
	96.74	53.01	9.87	0.00	0.00	32.77
2	14	147	148	44	0	353
	3.04	42.12	47.13	12.54	0.00	17.50
3	1	15	115	153	31	315
	0.22	4.30	36.62	43.59	5.71	15.62
4	0	1	19	134	132	286
	0.00	0.29	6.05	38.18	24.31	14.18
5	0	1	1	20	380	402
	0.00	0.29	0.32	5.70	69.98	19.93
Total	460	349	314	351	543	2,017
	100	100	100	100	100	100

Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Cell entries are the number of tracts with family populations 50 and above and column percent, respectively. Tract N=2,024 in 1990, 2,027 in 2000, and 2,031 in 2008–2012.

higher levels of fluidity mark the middle of the distribution, but this change is due almost entirely to declines in neighborhood affluence relative to the national distribution. More than 50 percent of neighborhoods in quintile categories two through four dropped to a lower category; about 6 percent or fewer ascended to a higher category. These trends are most accentuated in the case of the middle fifth of income (category three), where nearly 60 percent of neighborhoods deteriorated in their relative positions, and a nontrivial 10 percent fell two groups lower. By the end of the decade, a material downward shift in the distribution of Los Angeles neighborhoods relative to the national distribution occurred; more than 30 percent fell within the bottom fifth of affluence. This shift, combined with high rates of persistence at the top of distribution, contributed to a "hollowing out" of the middle insofar as only 47 percent of Los Angeles neighborhoods remained within the three middle categories of the national distribution by 2000 (see also Booza, Cutsinger, and Galster 2006).

The second decade, shown in table 3—from 2000 to 2008–2012—again reveals persistence at the extremes, but this time, it is the affluent neighborhoods that are most durable; almost 90 percent of affluent neighborhoods remain so, versus nearly 70 percent of poor neighborhoods. Moreover, whereas the 1990s were marked by fluidity and backsliding for income groups two through four, in the subsequent period we see increased stability and a higher rate of upgrading despite the intervening recession. Persistence increases from approximately 40 percent for neighborhoods in the three middle-income fifths during the 1990s to about 50 to 60 percent during the 2000s. As in the earlier period, fluidity is highest among the middle-fifth of income—the only category in which fewer than half of neighborhoods preserve their relative position across the timeframe. But in contrast to the prior decade, the neighborhood fluidity that exists is largely a product of relative upgrading rather than downgrading. Within each of the middle intervals, for example, nearly twice as many neighborhoods increase their quintile-based position (24 to 39 percent) as decrease (8 to 16 percent). This material recovery in relative affluence reduces the skew in the neighborhood distribution toward the very bottom of the national distribution and restores the proportion

Table 3. Neighborhood-Level Transitions in Median Family Income, 2000 to 2008–2012

	2000 Median Family Income Quintiles					
	1	2	3	4	5	Total
2008–2012 Income Quintiles						
1	457	29	1	1	0	488
	69.24	8.22	0.32	0.35	0.00	24.12
2	189	186	50	1	0	426
	28.64	52.69	15.87	0.35	0.00	21.06
3	11	111	152	42	2	318
	1.67	31.44	48.25	14.63	0.49	15.72
4	1	24	95	173	50	343
	0.15	6.80	30.16	60.28	12.25	16.96
5	2	3	17	70	356	448
	0.30	0.85	5.40	24.39	87.25	22.15
Total	660	353	315	287	408	2,023
	100	100	100	100	100	100

Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Cell entries are the number of tracts with family populations 50 and above and column percent, respectively. Tract N=2,024 in 1990, 2,027 in 2000, and 2,031 in 2008–2012.

of L.A. neighborhoods falling within the middle three-fifths of the national distribution. Interestingly, however, the proportion of neighborhoods falling within the middle-income fifth remains unchanged at 16 percent despite considerable flux in the particular neighborhoods in the middle-income category.

Shifting our neighborhood-level metric from median family income to ICE generates virtually identical results across both periods (data not shown). Transition matrices based on ICE quintiles confirm very high levels of durability at the extremes, with 96 percent of the poorest neighborhoods remaining in the bottom fifth of the distribution and 69 percent of the richest neighborhoods remaining at the top over the 1990s; in the 2000s, these rates are 72 percent and 87 percent, respectively. Also, like median income, mixed middle-income neighborhoods (the middle fifth) based on the ICE metric are the least likely to preserve their quintile-based position over time.

Whether the neighborhood-level metric employed is median family income or ICE, the patterns we have found in Los Angeles largely mirror trends in Chicago and the nation as a whole. Namely, despite some evidence of neighborhood downgrading (the 1990s) and upgrading (the 2000s), "stickiness" is the general rule, particularly at the extremes of the distribution (see also Sampson, Mare, and Perkins 2015). Surprisingly, these inertial tendencies are even stronger in Los Angeles than elsewhere. For example, whereas approximately 65 percent of Chicago neighborhoods in both the bottom and the top fifths remained in place between 1990 and 2005–2009, the proportion remaining stable in Los Angeles reaches 97 percent among lowest-income neighborhoods between 1990 and 2000 and 87 percent at the top between 2000 and 2008–2012. Even within the middle three income groupings, persistence rates tend to be higher among Los Angeles neighborhoods than they are among Chicago neighborhoods.[13]

13. Of course, conclusions about relative stability depend in part on poverty definitions. Nationally, neighborhoods with 40 percent+ poverty rates were about as likely to stay stable, increase their poverty rate 5+ points, or decrease 5+ points during the 1980s (Galster et al. 2003).

However, the similarities between neighborhood conditions in Los Angeles and other major American cities, such as Chicago, should not be overstated. Los Angeles stands out for its large Latino—and increasingly Asian—populations, fueled by foreign immigration. Moreover, its economic base and pattern of deindustrialization are distinct, as reflected in the aerospace manufacturing decline of the 1990s, for example. Additionally, the distinction between the core city and suburbs is less relevant in L.A. than in other cities, particularly when it comes to education. The Los Angeles Unified School District covers the city of Los Angeles plus thirty-one smaller municipalities and unincorporated areas of the county. Moving out of the city is thus less relevant for obtaining a different quality of schooling than in cities like Chicago.

Los Angeles neighborhoods also stand out in their trends, deteriorating relative to the national income distribution in the 1990s before recovering during the 2000s. Paul Jargowsky (2003) offers three possible explanations for the anomalous downgrading of L.A. neighborhoods over the course of the 1990s: escalating racial tensions fomented by the Rodney King verdict in 1992 and the O. J. Simpson trial in 1995 accelerated middle-class flight from central L.A.; massive flows of immigration from Latin American countries, particularly Mexico, substantially increased L.A.'s number of low-income residents; and the early 1990s recession severely affected Southern California and the Internet-fueled economic recovery buoyed L.A. less than other metropolitan areas in the United States. To assess these explanations, we compare compositional and economic county-level trends in Los Angeles and Chicago, using Census 1990, Census 2000, and ACS 2008–2012 data. If either the first or the second hypotheses were true, we would expect to see a larger decrease in the Los Angeles white population and a larger increase in its Hispanic population than in Chicago during the 1990s. Although the L.A. white population declined slightly more steeply than Chicago's over this timeframe—18 percent versus 12 percent—Chicago's staggering 54 percent Hispanic growth rate was twice that of Los Angeles. Compositional factors alone do not appear to drive the divergence in L.A. neighborhood trajectories from the national trend line.

Our analysis supports the economic explanation instead. During the 1990s, average household income in L.A. climbed an anemic 1 percent compared to Chicago's robust 14 percent growth. Income trends are also consistent with L.A.'s neighborhood recovery in the subsequent decade. Between 2000 and 2008–2012, average household incomes in L.A. declined by approximately 4 percent—far less precipitously than Chicago's 9 percent. In short, the distinct income trajectories across cities provides the most plausible account for why L.A. neighborhoods lost so much ground in the 1990s but then recovered relative to the national distribution during the 2000s.[14]

INDIVIDUAL-LEVEL TRANSITIONS

We now shift our primary unit of analysis from the neighborhood to the individual but retain our analytic focus on the nature of change. Tables 4 and 5 show the transition matrices of individual exposure to neighborhood income environments over thirteen years (2000 to 2013)

14. We also compare the race-ethnic composition of high-income and low-income neighborhoods across the two cities. In both Los Angeles and Chicago, minorities constitute approximately 95 percent of low-income neighborhoods based on the ACS 2008–2012 survey. But in Chicago, blacks comprise over 65 percent of low-income neighborhood residents, whereas in Los Angeles, Hispanics predominate with more than 70 percent of residents in the least affluent communities. The remainder of minority residents is roughly split between blacks and Asians who constitute 10 and 9 percent of low-income neighborhood residents, respectively; in Chicago, this remainder is dominated by Hispanics, at 25 percent, followed by Asians, a mere 2 percent. Divergence is diminished at the top. In both Los Angeles and Chicago, white residents constitute a majority of high-income neighborhood residents (61 and 76 percent, respectively) followed by a roughly even split of Asians and Hispanics and then blacks. The key difference is that Asians and Hispanics together make up nearly twice the share of residents in affluent L.A. neighborhoods as they do in socioeconomically similar Chicago neighborhoods—31 percent to 16 percent. Blacks, on the other hand, make up a mere 4 percent of high-income neighborhood residents in L.A. and 6 percent in Chicago.

Table 4. Individual-Level Transitions, Median Family Income

	Wave 1 Median Family Income Quintiles					
	1	2	3	4	5	Total
Wave 3 Income Quintiles						
1	82	13	0	2	0	97
	40.77	15.54	0.23	5.49	0.00	15.89
2	82	40	47	10	4	184
	41.03	48.55	34.65	24.50	2.84	30.00
3	19	28	44	1	12	104
	9.24	33.97	32.79	3.14	7.85	16.99
4	11	2	38	17	21	88
	5.63	1.94	27.91	39.80	13.57	14.39
5	7	0	6	11	115	139
	3.32	0.00	4.42	27.06	75.74	22.73
Total	201	81	136	42	152	612
	100	100	100	100	100	100

Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Los Angeles adult sample (N=612 individuals, 2000 to 2013). Cell entries are the weighted number of cases and column percent, respectively.

in our L.A.FANS-MIP sample of adults.[15] Table 4 reveals that over 75 percent of individuals who resided in the most affluent neighborhoods at baseline preserve their neighborhood position thirteen years later, versus an average of about 40 percent among respondents who resided within the least affluent neighborhood stratum at wave 1. If we consider the bottom two-fifths as lower-income brackets, nearly 80 percent of adults who started in these lower two groups remain there over the course of the study. Respondents residing in a middle-income neighborhood at wave 1 have the lowest likelihood of remaining in the same type of neighborhood by wave 3: only 33 percent of respondents who started the panel in this stratum remain there by wave 3. This share of respondents constitutes a mere 7 percent of the entire sample, versus 68 percent that did not reside in a middle-income neighborhood at wave 1 or wave 3. The balance, nearly 25 percent of the sample, transitions into or out of middle-income neighborhoods between 2000 and 2013. Despite the vast differences in urban structure, L.A.'s patterns largely mirror those found in Chicago (Sampson, Mare, and Perkins 2015), confirming fluidity in individuals' exposure to mixed middle-income neighborhoods.

Employing ICE as our neighborhood-level outcome of interest (table 5) reveals broadly similar trends but with some twists. Some 66 percent of Angelenos in the top neighborhood quintile are estimated to preserve their position based on ICE, versus 76 percent based on median family income. For residents who began the panel in neighborhoods constituting the middle three categories of ICE, the rate of persistence averages nearly 50 percent, versus an average of approximately 40 percent produced by the median family income matrix. Divergent estimates of temporal rigidity are most pronounced across metrics for those who lived in the least affluent neighborhoods at the beginning of the panel. Whereas the median family income matrix suggests that about 40 percent of respondents remain stuck in the lowest income neighborhoods between waves 1 and 3, the ICE matrix produces a proportion of 60 percent, an estimate closely aligned with

15. Data are weighted to correct for stratified sample design and potential attrition bias over the course of the follow-up.

Table 5. Individual-Level Transitions, ICE

	Wave 1 ICE Quintiles					
	1	2	3	4	5	Total
Wave 3 ICE Quintiles						
1	112	13	1	2	0	128
	59.98	12.02	1.36	3.04	0.00	21.00
2	38	73	29	11	9	160
	20.17	65.50	33.50	14.85	6.08	26.18
3	23	20	33	10	3	88
	12.11	17.51	37.89	13.75	2.07	14.44
4	12	2	23	32	40	109
	6.48	2.04	26.35	42.48	26.25	17.84
5	2	3	1	20	100	126
	1.26	2.94	0.91	25.89	65.60	20.55
Total	186	112	86	76	152	612
	100	100	100	100	100	100

Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Los Angeles adult sample (N=612 individuals, 2000 to 2013). Cell entries are the weighted number of cases and column percent, respectively.

the Chicago panel data (Sampson, Mare, and Perkins 2015). Estimated trajectories for those who started in mixed middle-income neighborhoods are more congruent across the two neighborhood-level metrics. Both matrices reveal that respondents residing in a middle-income neighborhood at wave 1 have the lowest likelihood of remaining in the same type of neighborhood by wave 3 (38 percent for ICE). Overall, then, the ICE and median family income analyses provide a broadly similar portrait of individual pathways.

RESIDENTIAL MOBILITY AND THE GREAT RECESSION

To what degree are the patterns of change in tables 4 and 5 brought about by the residential mobility of individuals or the mobility of neighborhoods? What is the role of the Great Recession? To answer these questions we estimate an unconditional multilevel model where median neighborhood income varies simultaneously over time t (waves 1 through 3 from 2000 to the 2011–2013 follow-up) and between individuals (i):

$$MEDIAN\ INCOME_{ti} = \beta_{00} + r_{0i} + e_{ti}, \quad (1)$$

where e_{ti} is the within-person or change error term and r_{0i} is the person-specific error term.

Our data reveal that the intercept, β_{00}, reflecting neighborhood median income in 2000, is $49,446 in 1999 dollars. For an identical model predicting ICE, the intercept hovers near the middle of the distribution as expected, at –0.04. But by far the greatest variation in median income status is between people rather than over time—80 percent and 20 percent, respectively. For ICE, the corresponding values are 82 percent and 18 percent. Interestingly, when we add a parameter for time (coded 0, 1, and 2) we find that change in median income for the sample as a whole is statistically no different than zero. For ICE, a modest trend is indicated by a significant effect of time, with an increment to ICE of 0.03 at each wave. These patterns are somewhat surprising given neighborhood income changes that might be expected to be induced by the Great Recession, but stable differences among individuals are the main story so far.[16]

16. The reliability coefficients that reflect the precision of our estimates to detect differences between individuals in neighborhood income status are also very high, at 0.81 for median income and 0.83 for ICE.

To disentangle residential mobility and temporal change pre- and postrecession we redefine equation (1) by introducing our moving indicators by wave along with an interaction of time with moving and estimate the initial mixed-effects model for individual i at time t:

$$MEDIAN\ INCOME_{ti} = \beta_{00} + \beta_{10}{*}Time_{ti} + \beta_{20}{*}Mover_{ti} + \beta_{30}{*}Time\_X\_Mover_{ti} + r_{0i} + e_{ti}, \quad (2)$$

where e_{ti} is the within-person or change error term and r_{0i} is the person-specific error term. We repeat the same model for the ICE measure. In this basic model, the coefficient for time (0.03) is significant ($p < 0.05$) for ICE, but not for median income; moreover, the coefficients for mover and the interaction of moving with time do not approach significance for either outcome of interest. Unlike in Chicago, where moving is associated with income gains (Sampson and Sharkey 2008), moving tracts in Los Angeles does not translate into systematic improvements or declines in neighborhood status, at least for the overall sample. Other differences are that white stayers at later waves reside in higher-income neighborhoods at baseline than movers, and that the level of moving is lower in Los Angeles in the second follow-up—39 percent of adults moved neighborhoods from waves 1 to 2 and 26 percent moved from waves 2 to 3, versus 35 percent and 36 percent in Chicago, respectively, for the adult caretakers.[17] Also, the last wave in the Los Angeles data corresponds to the Great Recession and we know that residential mobility declined nationally as a result of the downturn.

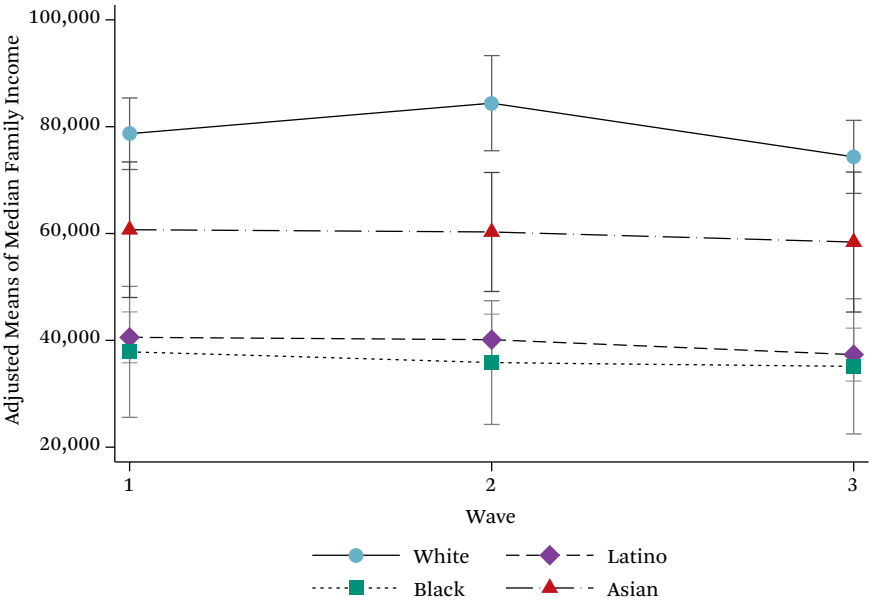
One plausible reason for the null pattern of neighborhood income change produced by moving is the distinct nature of Los Angeles's urban form, which is dominated by a sprawling structure with little in the way of American cities' typical core-periphery distinction other than perhaps the central L.A. or downtown sector versus the rest of the county. We thus examine whether any gains to moving were independently associated with moving out of central L.A. Although central L.A. has lower incomes overall, no significant relationship exists for either median income or ICE in a model specification similar to that described where we add an interaction of moving out of central L.A. with time. Probing further, we examine residential mobility over time within each of the eight metropolitan regions that carry distinct ecological and economic meaning (see note 10). Persistence or "pull" among movers is considerable in all sectors except central L.A. Among movers between waves 1 and 2, for example, more than 75 percent stayed within their communities of origin. From waves 2 to 3, all communities except central L.A. retained the majority of their residents as well, albeit at a slightly lower rate. Still, in some cases, retention was effectively complete, as in the San Fernando Valley and the more affluent Westside Cities, where 97 and 91 percent of between-neighborhood movers did not stray from their communities, respectively. Although central L.A. lost respondents at each follow-up, outmovers did not end up in higher-income neighborhoods overall, and they constitute just 1 percent of the sample.

Another possibility is that the consequences of moving differ by racial and ethnic groups. To test this hypothesis, we expand equation (2) to allow both time and moving by time interaction terms to vary by race and ethnicity. The data are weighted to reflect population estimates and adjusted for age, sex, and immigrant generation. But here too little if any broad pattern is evident, as shown in figures 1 and 2, which present neighborhood income trajectories by race and moving status, respectively. Median income shows little temporal trend—particularly among nonmovers—but does show a strong hierarchy of racial stratification. Throughout figure 1, white stayers preserve their place high atop the racial hierarchy, followed by Asians, and finally Latinos and blacks. The latter two groups are virtually indistinguishable from each other.

Among movers (figure 2), a similar story emerges with one modest divergence: Asians

17. The reliability of the change parameter alone is near zero for median income, but the interaction of time and moving is modestly reliable when the time parameter is fixed (0.30). For ICE, the reliability to detect change is a similar 0.31 with or without interactions with moving.

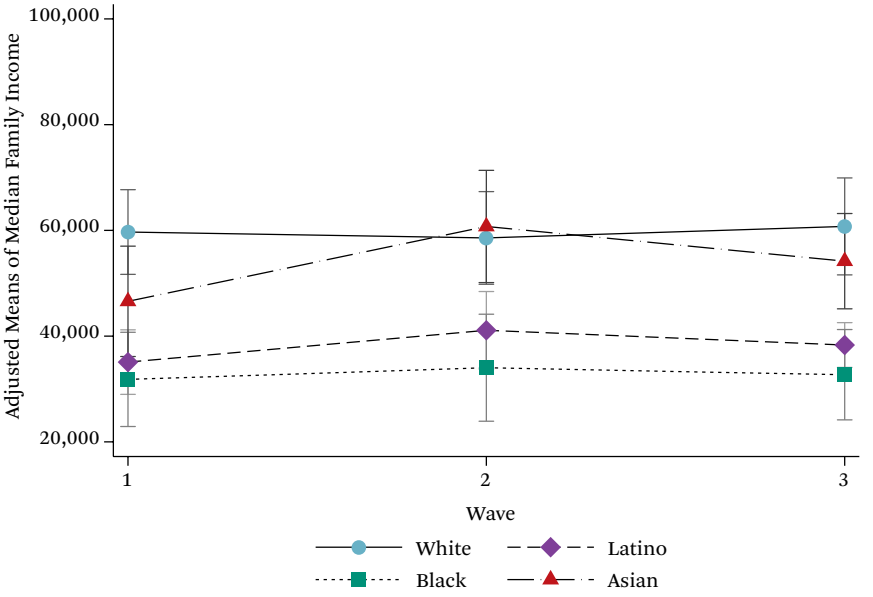
Figure 1. Median Family Income by Race-Ethnicity and Residential Mobility, Stayers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.

Note: Weighted and adjusted for age, sex, and immigrant generation; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

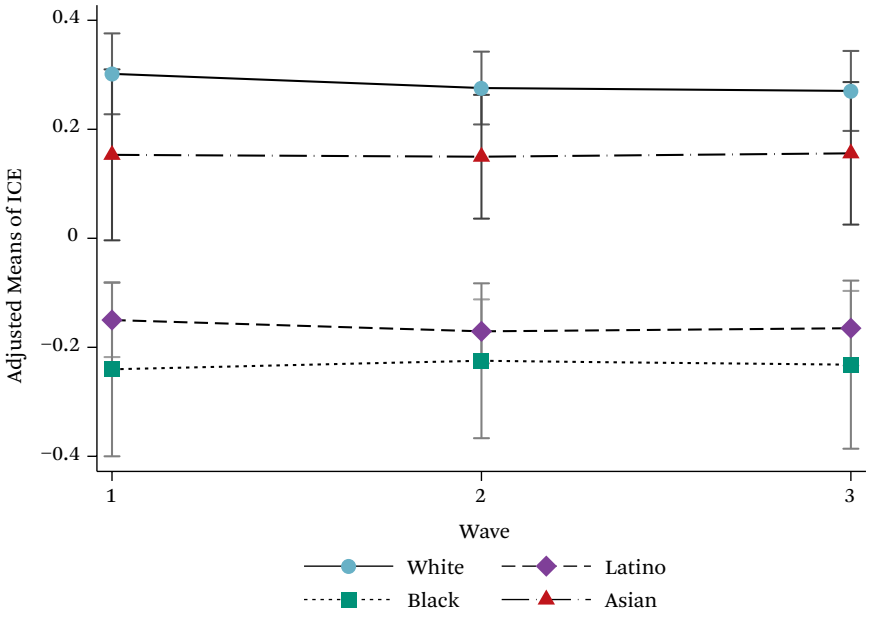
Figure 2. Median Family Income by Race-Ethnicity and Residential Mobility, Movers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.

Note: Weighted and adjusted for age, sex, and immigrant generation; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

Figure 3. ICE by Race-Ethnicity and Residential Mobility, Stayers



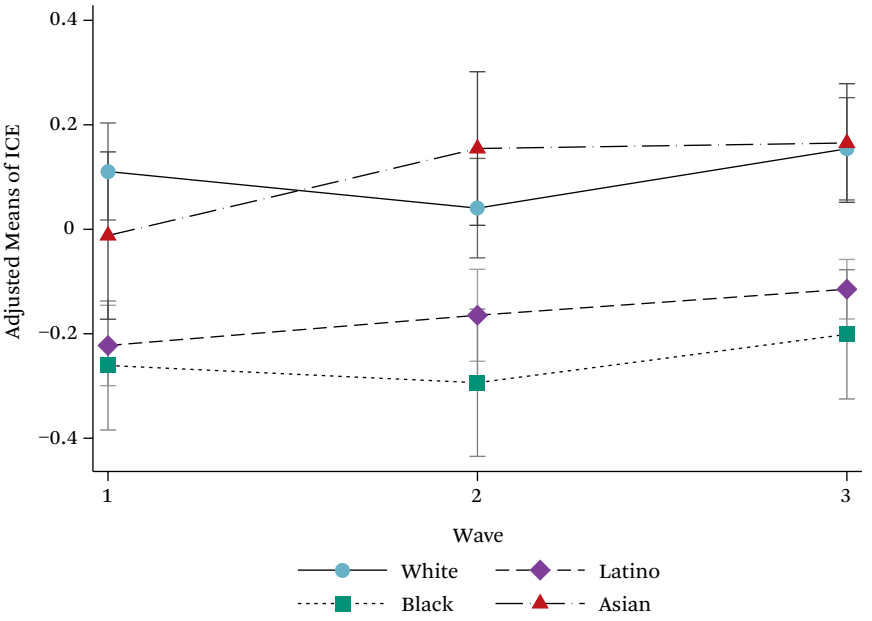
Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.

Note: Weighted and adjusted for age, sex, and immigrant generation; trajectories shown with 95 percent confidence intervals.

in wave 2. Immediately before the Great Recession, Asian movers briefly exceed their white counterparts in neighborhood attainment. However, this disruption in the hierarchy proves fleeting; by wave 3, Asians movers' neighborhood income levels and relative position to whites return close to where they started at the beginning of the panel. The bottom of the racial hierarchy, on the other hand, remains fairly stable. Despite moving, blacks and Latinos barely close the gap in neighborhood attainment levels with white and Asian movers by wave 3. The durability of racial groups' relative and absolute positions among both movers and nonmovers, before and after one of the greatest economic shocks in American history, is striking. It is even more pronounced with a comparative lens applied; panel data in Chicago between 1995 and 2002 reveal substantial gains in neighborhood median family income among white, black, and Latino movers alike—with particularly steep inclines experienced by Latinos (Sampson and Sharkey 2008). In Los Angeles, mobility does not appear to translate into sustained relative or absolute improvements in neighborhood context across racial groups.

Figures 3 and 4 display an analogous model for movers and stayers by individual trajectories of ICE. The story is broadly similar to the one outlined earlier based on the median income metric. A bifurcated racial hierarchy—with whites and Asians on top and Latinos and blacks at the bottom—persists across waves. The one difference that stands out is the position of Asian movers relative to their white mover counterparts by wave 3. The median family income trajectory plot suggests that Asian movers outstrip their white counterparts during wave 2 only to fall behind them by wave 3, and the ICE plot indicates that Asian movers reach parity with whites by the end of the panel. Across both metrics, it becomes clear that Asian movers make substantial relative and absolute gains by wave 2; the question is whether those gains are preserved by wave 3. Latino movers, for their part, achieve modest absolute and rela-

Figure 4. ICE by Race-Ethnicity and Residential Mobility, Movers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.

Note: Weighted and adjusted for age, sex, and immigrant generation; trajectories shown with 95 percent confidence intervals.

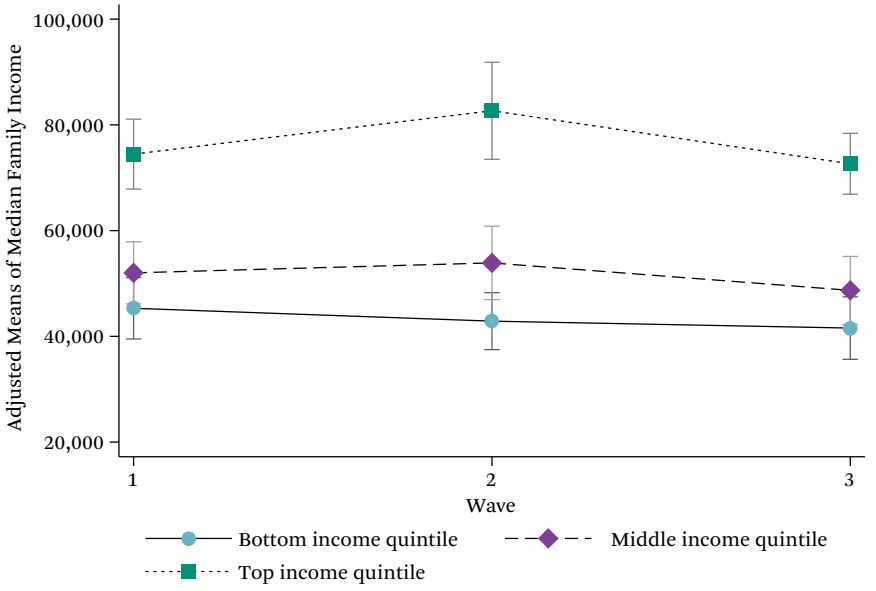
tive gains across the panel, and blacks make nearly none.

Given the large and heterogeneous Latino population in Los Angeles, we examine two additional specifications of the models underlying figures 1 through 4—one that stratifies Latinos by immigrant generation and another by residence in an ethnic enclave at baseline.[18] These models confirm that the same overall racial hierarchy holds with only slight modifications. Among stayers and movers, Latinos with non-enclave origins exceed their enclave counterparts in terms of neighborhood median income and ICE throughout the entire panel, though the gap closes slightly over time. In each version of these models, whites and Asians preserve a sizable advantage over both enclave and non-enclave Latinos.

Figures 5 and 6, moreover, show that individual income groups—like racial groups—fol-

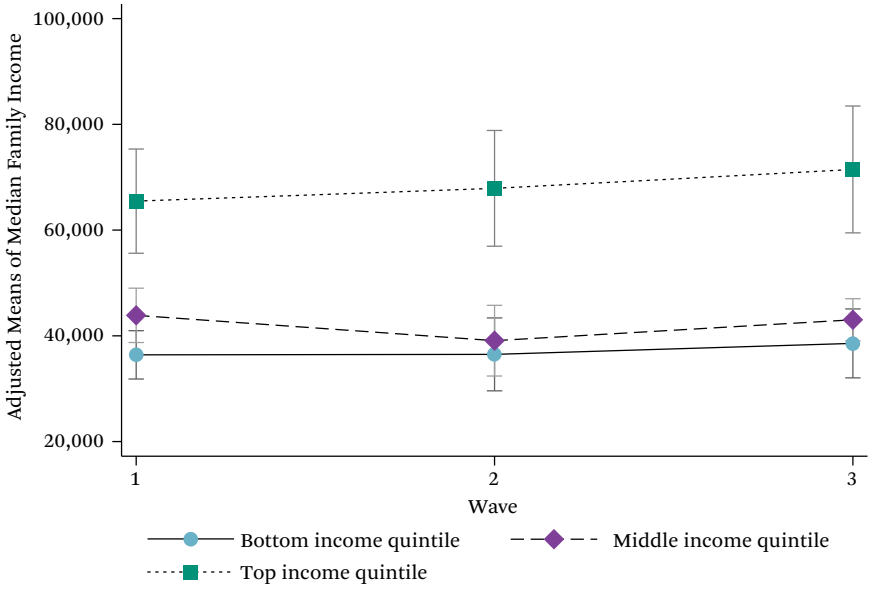
18. A large body of literature on immigration has debated whether ethnic immigrant enclaves serve as temporary way stations for Latinos and Asians en route to upward neighborhood mobility or as persistently disadvantaged communities that suppress residents' neighborhood attainment trajectories over time. Defining Latin American immigrant enclaves based on the similarity of each census tract's proportional representation of a given country-of-origin group with that of surrounding tracts and on the group's mean proportional representation of the overall metropolitan region, Richard Alba and his colleagues (2014) offer evidence in support of the latter view. To evaluate these claims, we use the simpler double-share criterion, whereby a tract is deemed an ethnic enclave if the proportion of residents reporting a given country of heritage is twice that of the overall proportion reporting the same heritage in Los Angeles County in the 2000 census (for a description, see Logan, Alba, and Zhang 2002; Alba, Logan, and Crowder 1997). A minimum threshold of 10 percent is applied for all heritage nationalities other than Mexicans (whose threshold is 64 percent—twice the share of L.A. County residents reporting Mexican heritage), given that no other national heritage encompasses a substantial share of the L.A. County population. Our ethnic enclave analysis largely confirms the Alba and colleague findings (2014).

Figure 5. Median Family Income by Baseline Income Quintiles and Residential Mobility, Stayers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Weighted and adjusted for age, sex, immigrant generation, and race-ethnicity; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

Figure 6. Median Family Income by Baseline Income Quintiles and Residential Mobility, Movers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Weighted and adjusted for age, sex, immigrant generation, and race-ethnicity; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

low a durable hierarchy across the length of the panel. Among stayers and movers alike, respondents who begin the panel within the top income group maintain a substantial advantage thirteen years later over those who start within the middle and bottom fifths. For stayers, no meaningful temporal trend is apparent; for movers, neighborhood income modestly increases between waves 1 and 3 from the top and bottom income groups. However, even among movers, the size of the neighborhood income gap between the rich and the rest barely budges, reinforcing the persistent dominance of affluent Angelenos in the neighborhood hierarchy.

INDIVIDUAL DIFFERENCES, SOCIAL MOBILITY, AND LIFE-COURSE CHANGE

The results to this point do not account for differences among our respondents in resources such as education, employment, and homeownership or for family factors, such as marital status (for example, married, single, cohabitating) or the number of children in the household. In addition, our models do not disentangle social mobility or individual change from stable between-person differences—the heart of the final analytic question of this paper. To what degree are patterns of individuals' residential mobility across neighborhood types due to changes in their socioeconomic or family conditions? To answer this question, we estimate multilevel models that separate individual change and between-individual differences in the following characteristics—income, education, number of children, marital status, employment, and homeownership. In addition to the race-ethnicity terms of interest we also adjust for length of residence in the neighborhood at baseline, age, sex, and immigrant generation. The models, an extension of equation (2), are estimated in a mixed-effects or hierarchical regression of median income and ICE that center time-varying covariates at their person means.

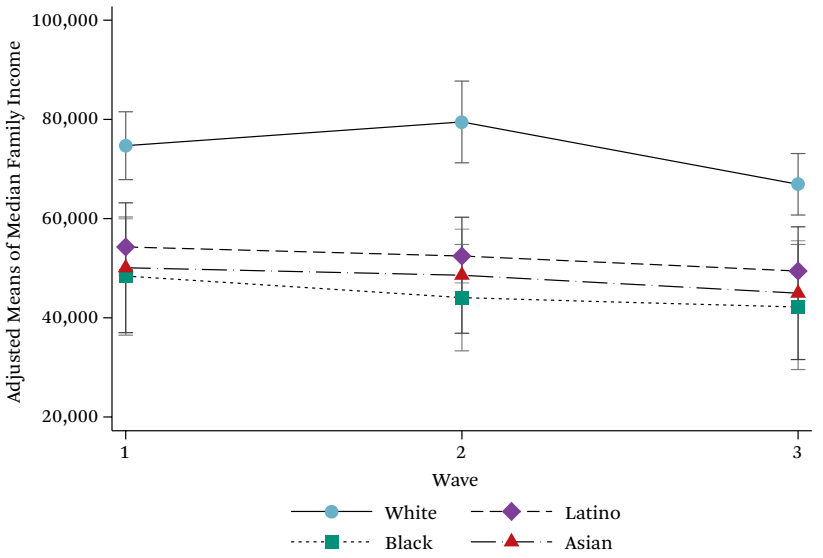
These models generate a large number of coefficients beyond the charge of this paper, so we focus on whether the fundamental patterns observed so far with respect to residential mobility and race-ethnicity and income groups are robust. Major patterns can be visualized by presenting the trajectories of income status change resulting from the multivariate results for the groups of interest. Figures 7 through 10 present the conditional trajectories of nonmovers and movers stratified by race-ethnicity and income group, respectively. Among nonmovers (figure 7), we see that accounting for a host of time-varying and time-invariant covariates compresses the distribution and clusters all minority groups together at the bottom: white dominance of the racial-income hierarchy proves remarkably stable over time.

A somewhat distinct story emerges among movers in figure 8, where we see a subtle shift in the race-based spatial hierarchy. Asian movers reach near parity with whites by wave 2 and largely preserve this position into wave 3, and Latino movers also close their neighborhood attainment gap with whites by wave 3. Stratifying Latinos by immigrant generation reveals that third-generation Latinos are driving the white-Latino gap reduction; in this mover model, they fall between whites and Asians at the top of the hierarchy throughout the panel, and first-generation Latinos follow a pattern similar to that of blacks, who remain at the bottom of the hierarchy. Grouping Latinos by ethnic enclave residence at baseline and controlling for immigrant generation, we again see a modest disadvantage associated with enclaves that diminishes over time. However, regardless of enclave status, Latino movers remain below whites and Asians and above blacks through most of the panel.

Among income groups in figures 9 and 10, the fully adjusted results look quite similar to the unadjusted—in particular, those at the top are seemingly impervious to change. The absolute dollar gaps also remain very large—at the end of our study approximately $20,000 separates blacks from whites in neighborhood median income, and over $30,000 separates the top and bottom income fifths despite individual differences, life-course change, and the Great Recession.

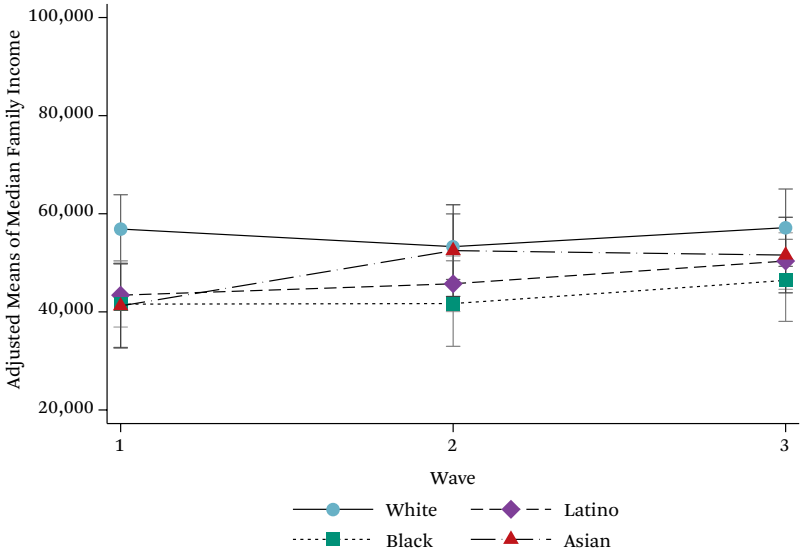
Most of the explanatory work is driven by stable differences among individuals rather than life-course change—a notable finding, especially in light of the Great Recession. Respondents' demographic characteristics, such as race, and mean SES-household structure

Figure 7. Median Family Income by Race-Ethnicity and Residential Mobility, Stayers



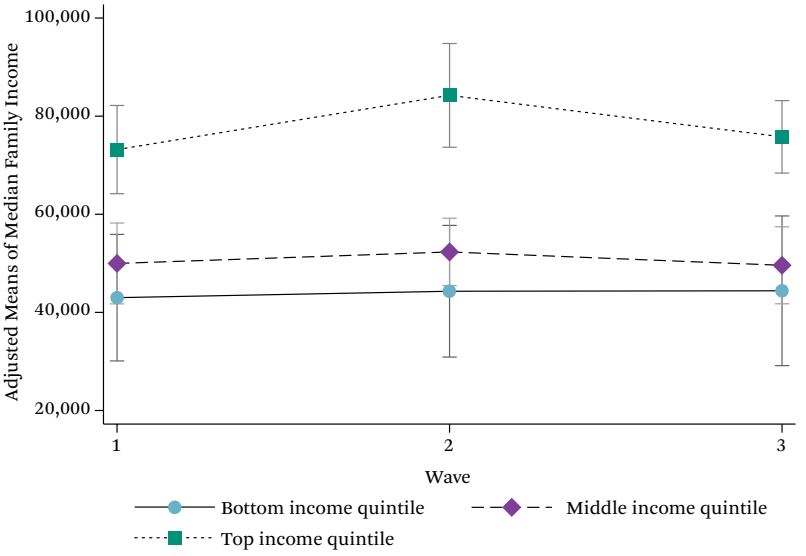
Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Weighted and adjusted for age, sex, immigrant generation, and length of residence at wave 1, and both change and person-levels of education, family income, homeownership, employment status, marital status, and number of children in the household; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

Figure 8. Median Family Income by Race-Ethnicity and Residential Mobility, Movers



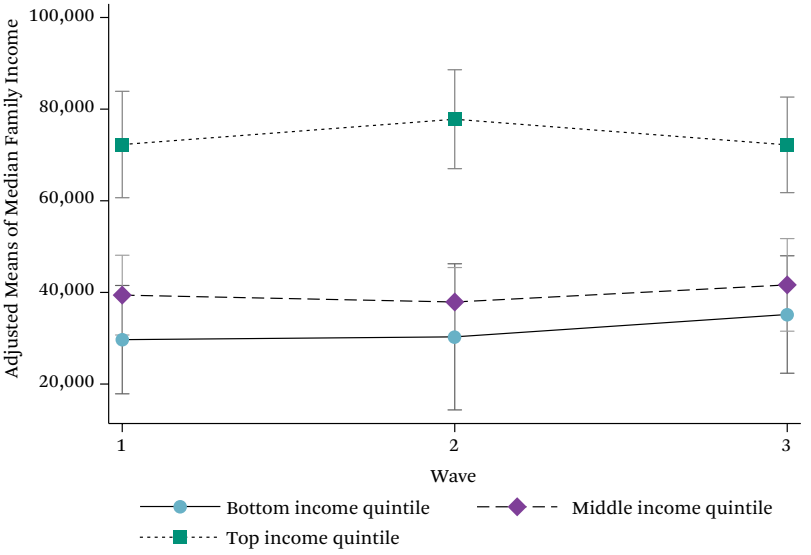
Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Weighted and adjusted for age, sex, immigrant generation, and length of residence at wave 1, and both change and person-levels of education, family income, homeownership, employment status, marital status, and number of children in the household; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

Figure 9. Median Family Income by Time-Varying Income Quintiles and Residential Mobility, Stayers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Weighted and adjusted for age, sex, immigrant generation, race-ethnicity, and length of residence at wave 1, and both change and person-levels of education, family income, homeownership, employment status, marital status, and number of children in the household; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

Figure 10. Median Family Income by Time-Varying Income Quintiles and Residential Mobility, Movers



Source: Authors' calculations using L.A.FANS-MIP Longitudinal Study, decennial census, and ACS data.
Note: Weighted and adjusted for age, sex, immigrant generation, race-ethnicity, and length of residence at wave 1, and both change and person-levels of education, family income, homeownership, employment status, marital status, and number of children in the household; trajectories shown with 95 percent confidence intervals; median family income is in 1999 dollars.

profile over the course of the panel (between-person differences)—particularly with regard to income and education—account for most of the variation in neighborhood income status. Change in SES-household structure across waves (individual change) boost neighborhood income gains mainly for respondents who transition from single to married.

DISCUSSION

The persistence of spatial inequality in Los Angeles is revealed both across neighborhoods and in the lives of individuals over a period of rapid social change that included the disruption of the Great Recession. An overwhelming 97 percent of Los Angeles neighborhoods in the bottom income fifth in 1990 remained there ten years later. At the other end, and after the recession, 87 percent of the highest income neighborhoods in 2000 retained their status ten years later (2008–2012). Downward neighborhood mobility from the top was thus quite rare, as was neighborhood upgrading from the bottom fifth; the tendency was for low-income neighborhoods to remain "stuck in place" (Sharkey 2013). Where change does preside is in the middle of the distribution. Mixed middle-income neighborhoods were both less prevalent and more unstable; Los Angeles experienced a hollowing out of the middle of the distribution in the 1990s followed by a modest recovery in the 2000s.

Relative persistence is likewise the dominant pattern in our longitudinal individual-level analysis of contextual mobility. Notably, more than 75 percent of individuals who lived in the most affluent neighborhoods at wave 1 preserved their neighborhood position thirteen years later, and nearly 80 percent of adults in the lower two-fifths of income remained there over the course of the study. But fluidity again prevails in the middle of the distribution; only 33 percent of respondents residing in a mixed middle-income neighborhood at wave 1 remained there at wave 3. Considerable movement in and out of neighborhoods near the middle of the distribution was common. These patterns comport with those found in Chicago, confirming persistence at the extremes and fluidity in mixed-income neighborhoods and underscoring the significant challenges that mixed-income policies face in American cities (Sampson, Mare, and Perkins 2015).

Contrary to prior research, however, we find that neighborhood change in income is not materially influenced by residential mobility for most groups and that, with few exceptions, change around stayers and change induced by moving across neighborhoods are not fundamentally different by race, ethnic, and income groups. Even pre- and postrecession patterns are similar: despite an expected dip in neighborhood income status following the 2008 crash, it is not large, and most groups follow a similar trajectory. Importantly, though, these trajectories unfold at dramatically different levels: the hierarchy of difference between race and income groups at the individual level is largely invariant over time and across residential mobility groups (figures 1 through 10). This conclusion is robust to adjustments for age cohort and both time-variant and time-invariant differences in factors such as income, marital status, homeownership, children, and education. Social mobility and within-individual changes are present in the lives of our respondents, of course, but our results demonstrate that individual changes make little dent in the persistence of neighborhood income inequality.

Nevertheless, questions left unanswered by our analysis deserve further attention. Although our focus on adults is comparable to prior work (for example, Sampson and Sharkey 2008), the transition to adulthood during the Great Recession era is an important topic in its own right. In future work, we plan to examine the subset of respondents who were children or adolescents at wave 1 of the L.A.FANS survey. In addition, our analysis is wave specific, which means that we effectively ignore multiple moves between waves. We will also exploit the full residential history files to develop yearly estimates of neighborhood context.

Certain empirical questions within our current framework are also left open. Although our evaluation of geographic variation in neighborhood distributions supports the general thesis of durable urban inequality (Sampson 2012; Sharkey 2013), Los Angeles neighbor-

hood conditions and trajectories of change diverge from those of Chicago and the nation at large. Curiously, Los Angeles neighborhoods tended to backslide in the purportedly prosperous 1990s and recover in the economically volatile 2000s (see tables 2 and 3). Moreover, neighborhood-level inequality decreased in the latter period, despite the well-documented rise in inequality at the top end of the income distribution (Reardon and Bischoff 2011). Although we believe that local economic conditions appear to be the most likely explanation for the countercyclical nature of L.A.'s neighborhood trajectories, further work is required. A longitudinal, multilevel analysis of census data with city- and neighborhood-level indicators of race-ethnic composition and segregation, economic conditions and workforce composition, and housing markets could illuminate what macro-level and city-level factors shape neighborhood-level conditions and changes in those conditions over time. Urban scholars should also examine whether salient ecological factors at the city and neighborhood levels vary based on the particular historical era in question.

At the individual level, we have seen considerable fluidity in the middle of the distribution. What factors are driving moves into and out of neighborhoods at various points in the income distribution—particularly mixed-income neighborhoods? How and why these changes come about deserves further inquiry, as does a closer look at patterns of residential mobility within and between regions of Los Angeles, where the distinction between central city and suburbs is less salient than in Chicago (Sampson and Sharkey 2008). To this end, we plan to analyze the fine-grained residential history files of L.A.FANS respondents within a discrete choice framework of neighborhood selection, revealing how individual- and household-level characteristics (such as race-ethnicity, SES, family structure) interact with various features of potential destination neighborhoods (such as income levels, race-ethnic compositions, housing costs, crime rates, school quality, distance from amenities) to produce mobility outcomes (Quillian 2015; Bruch and Mare 2012). This discrete choice analysis, as well as the multilevel historical comparative analysis described earlier, constitute natural extensions of the current study and promise to further illuminate the particular processes that reproduce spatial inequality across cities and across historical eras.

CONCLUSION

Taken as a whole, our empirical results are clear: residential income inequality is alive and well in Los Angeles. At first glance, poor L.A. neighborhoods look nothing like the images that dominate the urban classics and popular media accounts. Outsiders are also known to remark that the slums in L.A. and other western cities do not physically resemble those in cities such as Chicago or Baltimore, especially public housing projects. This is undeniable—Los Angeles poverty is low rise and suburban. But the concentration of poverty and affluence is nonetheless deeply rooted and highly persistent in L.A. despite radical differences in urban form.

Indeed, an unexpected finding of our study is that the spatial foundations of income inequality in Los Angeles are in some respects stronger than in traditional cities such as Chicago, at both the neighborhood level and at the individual level, and especially at the top. The contextual advantage of the affluent and whites, in particular, is virtually unaffected by residential and social mobility, individual differences, and changing life circumstances including the Great Recession. To be sure, inequality is manifested distinctly in Los Angeles. Unlike results derived from Chicago, we have seen in Los Angeles that the mover-stayer distinction is weaker and that within-region circulation is considerable but that a noticeable core-periphery distinction with respect to basic patterns is not. Moreover, Latinos are not that different from blacks in Los Angeles; both groups experience more or less stable levels of exposure to lower neighborhood income over time compared with whites. In Chicago, African Americans are decidedly worse off than Latinos. Katz (2012) asserts that the black-white frame is breaking down, but it still holds for minorities overall. In Los Angeles, the main story is one of white spatial advantage over Asians, blacks, and Latinos.

We are left, then, with the conclusion that though the spatial foundations and dynamics of income inequality in Los Angeles take on distinct manifestations, the underlying or latent structure is disturbingly familiar and rigid. That the persistence of advantage and disadvantage over time finds fertile soil in the sprawling metropolis of Los Angeles suggests that the mechanisms driving the "old inequality" may be even more durable than commonly thought.

REFERENCES

Abbott, Andrew. 2002. "Los Angeles and the Chicago School: A Comment on Michael Dear." *City and Community* 1(1): 33–38.

Alba, Richard, Glenn Deane, Nancy Denton, Ilir Disha, Brian McKenzie, and Jeffrey Napierela. 2014. "The Role of Immigrant Enclaves for Latino Residential Inequalities." *Journal of Ethnic and Migration Studies* 40(1): 1–20.

Alba, Richard D., John R. Logan, and Kyle Crowder. 1997. "White Neighborhoods and Assimilation: The Greater New York Region, 1980–1990." *Social Forces* 75(3): 883–909.

Bobo, Lawrence D., Melvin L. Oliver, James H. Johnson, and Abel Valenzua, eds. 2002. *Prismatic Metropolis: Inequality in Los Angeles*. New York: Russell Sage Foundation.

Booza, Jason, Jackie Cutsinger, and George Galster. 2006. "Where Did They Go? The Decline of Middle-Income Neighborhoods in Metropolitan America." Washington, D.C.: Brookings Institution.

Briggs, Xavier de Souza, Greg Duncan, Kathryn Edin, Mark Joseph, Robert D. Mare, John Mollenkopf, Mary Pattillo, Lincoln Quillian, Robert J. Sampson, Claudia Solari, Laura Tach, and Sudhir Venkatesh. 2009. "Research Designs for the Study of Mixed-Income Housing." Report to the John D. and Catherine T. MacArthur Foundation. Los Angeles: California Center for Population Research.

Bruch, Elizabeth E., and Robert D. Mare. 2012. "Methodological Issues in the Analysis of Residential Preferences and Residential Mobility." *Sociological Methodology* 42(1): 103–54.

Charles, Camille Zubrinsky. 2009. *Won't You Be My Neighbor? Race, Class, and Residence in Los Angeles*. New York: Russell Sage Foundation.

Chaskin, Robert J., and Mark L. Joseph. 2015. *Integrating the Inner City: The Promise and Perils of Mixed-Income Public Housing Transformations*. Chicago: University of Chicago Press.

Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. 2014. "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." *Quarterly Journal of Economics* 129(4): 1553–623.

Dear, Michael, ed. 2001. *From Chicago to L.A.: Making Sense of Urban Theory*. Beverly Hills, Calif.: Sage Publications.

———. 2002. "Los Angeles and the Chicago School: Invitation to a Debate." *City and Community* 1(1): 5–32.

Drake, St. Clair, and Horace R. Cayton. 1945. *Black Metropolis: A Study of Negro Life in a Northern City*. Chicago: University of Chicago Press.

Du Bois, W. E. B. 1899. *The Philadelphia Negro: A Social Study*. Philadelphia: University of Pennsylvania Press.

Galster, George C., Jason Booza, and Jackie Cutsinger. 2008. "Income Diversity Within Neighborhoods and Very Low-Income Families." *Cityscape* 10(2): 219–62.

Galster, George C., Roberto G. Quercia, Alvaro Cortes, and Ron Malega. 2003. "The Fortunes of Poor Neighborhoods." *Urban Affairs Review* 39(2): 205–27.

Halle, David, ed. 2003. *New York and Los Angeles: Politics, Society, and Culture: A Comparative View*. Chicago: University of Chicago Press.

Halle, David, and Andrew A. Beveridge, eds. 2013. *New York and Los Angeles: The Uncertain Future*. New York: Oxford University Press.

Hipp, John R., Victoria Basolo, Marlon Boarnet, and Doug Houston. 2012. "Metropolitan Futures Initiative." School of Social Ecology. Irvine: University of California. Accessed December 1, 2014. http://mfi.soceco.uci.edu.

Jargowsky, Paul A. 2003. "Stunning Progress, Hidden Problems: The Dramatic Decline of Concentrated Poverty in the 1990s." Washington, D.C.: Brookings Institution.

Joseph, Mark L., and Robert J. Chaskin. 2012. "Mixed-Income Developments and Low Rates of Return: Insights from Relocated Public Housing Residents in Chicago." *Housing Policy Debate* 22(3): 377–405.

Katz, Michael B. 2012. *Why Don't American Cities*

Burn? Philadelphia: University of Pennsylvania Press.

Liebow, Elliott. 1967. *Tally's Corner: A Study of Negro Streetcorner Men*. Boston, Mass.: Little, Brown.

Logan, John R., Richard D. Alba, and Wenquan Zhang. 2002. "Immigrant Enclaves and Ethnic Communities in New York and Los Angeles." *American Sociological Review* 67(2): 299–322.

Logan, John R., Zengwang Xu, and Brian Stults. 2014. "Interpolating U.S. Decennial Census Tract Data from as Early as 1970 to 2010: A Longitudinal Tract Database." *Professional Geographer* 66(3): 412–20.

Massey, Douglas S. 1996. "The Age of Extremes: Concentrated Affluence and Poverty in the Twenty-First Century." *Demography* 33(4): 395–412.

———. 2001. "The Prodigal Paradigm Returns: Ecology Comes Back to Sociology." In *Does It Take a Village? Community Effects on Children, Adolescents, and Families*, edited by Alan Booth and Ann Crouter. Mahwah, N.J.: Lawrence Erlbaum Associates.

Massey, Douglas S., and Mitchell L. Eggers. 1990. "The Ecology of Inequality: Minorities and the Concentration of Poverty, 1970–1980." *American Journal of Sociology* 95(5): 1153–88.

Norholdt, Eric S. 1998. "Imputation: Methods, Simulation Experiments, and Practical Examples." *International Statistics Review* 66(2): 157–80.

O'Connor, Alice, Chris Tilly, and Lawrence Bobo. 2001. *Urban Inequality: Evidence from Four Cities*. New York: Russell Sage Foundation.

Peterson, Christine E., Anne R. Pebley, Narayan Sastry, Karen Yuhas, Bonnie Ghosh-Dastidar, Ann C. Haas, Jesse Gregory, and Marianne P. Bitler. 2012. "The Los Angeles Family and Neighborhood Survey, Wave 2: User's Guide and Codebook." Working Paper no. WR-240/20-L.A.FANS. Santa Monica, Calif.: RAND Corporation. Accessed December 1, 2014. http://www.rand.org/pubs/working_papers/WR240z20.html.

Piketty, Thomas. 2014. *Capital in the Twenty-First Century*. Cambridge, Mass.: Harvard University Press.

Quillian, Lincoln. 2015. "A Comparison of Traditional and Discrete-Choice Approaches to the Analysis of Residential Mobility and Locational Attainment." *Annals of the American Academy of Political and Social Science* 660(1): 240–60.

Reardon, Sean F., and Kendra Bischoff. 2011. "Income Inequality and Income Segregation." *American Journal of Sociology* 116(4): 1092–53.

Sampson, Robert J. 2012. *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago: University of Chicago Press.

Sampson, Robert J., Robert D. Mare, and Kristin L. Perkins. 2015. "Achieving the Middle Ground in an Age of Concentrated Extremes: Mixed Middle-Income Neighborhoods and Emerging Adulthood." *Annals of the American Academy of Political and Social Science* 660(1): 156–74.

Sampson, Robert J., and Patrick T. Sharkey. 2008. "Neighborhood Selection and the Social Reproduction of Concentrated Racial Inequality." *Demography* 45(1): 1–29.

Sastry, Narayan, Bonnie Ghosh-Dastidar, John Adams, and Anne R. Pebley. 2006. "The Design of a Multilevel Survey of Children, Families, and Communities: The Los Angeles Family and Neighborhood Survey." *Social Science Research* 35(4): 1000–24.

Sastry, Narayan, and Anne R. Pebley. 2010. "Family and Neighborhood Sources of Socioeconomic Inequality in Children's Achievement." *Demography* 47(3): 777–800.

Shane, Scott. 2015. "Baltimore Riots Are Another Scar on a City Long Battered by Neglect." *New York Times*, April 29, 2015, p. A1. Accessed May 15, 2015. http://www.nytimes.com/2015/04/29/us/baltimore-riots-are-another-scar-on-a-city-battered-by-neglect.html.

Sharkey, Patrick T. 2013. *Stuck in Place: Urban Neighborhoods and the End of Progress Toward Racial Equality*. Chicago: University of Chicago Press.

Stack, Carol. 1974. *All Our Kin: Strategies for Survival in a Black Community*. New York: Harper and Row.

Sugrue, Thomas. 1996. *The Origins of the Urban Crisis: Race and Inequality in Post-War Detroit*. Princeton, N.J.: Princeton University Press.

Suttles, Gerald D. 1968. *The Social Order of the Slum: Ethnicity and Territory in the Inner City*. Chicago: University of Chicago Press.

Tatian, Peter A. 2003. "Neighborhood Change Database (NCDB) 1970–2000 Tract Data: Data Users Guide." Washington, D.C.: Urban Institute. Ac-

cessed December 1, 2014. http://www.geolytics.com/pdf/NCDB-LF-Data-Users-Guide.pdf.

Williams, Sonya, George Galster, and Nandita Verma. 2013. "The Disparate Neighborhood Impacts of the Great Recession: Evidence from Chicago." *Urban Geography* 34(6): 737–63.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.

Zorbaugh, Henry. 1929. *The Gold Coast and the Slum: A Sociological Study of Chicago's Near North Side*. Chicago: University of Chicago Press.