City & Community

Weighing and Measuring the Decline in Residential Segregation

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In the late 1960s, American cities were profoundly segregated. Cities had witnessed two immense waves of African-American migration from the rural South over the previous half-century. These migrants, drawn by the promise of decent wages for low-skilled if highly demanding jobs, faced a combination of legal barriers, discriminatory practices, and violent threats that restricted their choice of neighborhoods. Black neighborhoods tended to be crowded, with physical housing units that were both substandard and expensive (Cutler, Glaeser, and Vigdor 1999). They also featured some degree of socioeconomic integration and, like many neighborhoods of the era, a mix of retail and service-oriented businesses on the major shopping streets.

Seeds of change sown in this time period would bring a multidimensional transformation to these neighborhoods. The Fair Housing Act of 1968 brought an end to the era of legal housing discrimination; alterations to Federal housing policy ended redlining practices that had restricted the availability of mortgage credit in minority or mixed-race neighborhoods. At the same time, the importance of manufacturing as a source of employment for low-skilled workers began to decline. The completion of interstate highway systems accelerated a process of suburbanization that had begun some decades before. And the relaxation of restrictions on immigration eventually brought new waves of settlers to American cities.

One consequence of these changes, documented in my previous work with fellow economists David Cutler and Edward Glaeser, has been a general decline in the degree of African-American segregation. In our original study, we attempted to build a century-long longitudinal database of segregation in American cities (Cutler, Glaeser, and Vigdor 1999). Starting with ward data published in the Census enumeration of 1890, we worked our way forward to census tract data in 1990, making efforts to apply the multiple adjustments in Census measurement over time. Our results showed a substantial rise in segregation between 1890 and 1970, covering the two waves of African-American migration to cities mentioned above. From this peak, our study showed a pattern of decline. Subsequent work has shown an extension of the time trend, through to 2010. Our early-2012 update of the data series made headlines for reporting that segregation had reached its lowest level in 100 years (Glaeser and Vigdor 2012).

The basic findings of our 2012 report are shown in Figure 1. The figure plots the mean values of two basic black–nonblack segregation indices, dissimilarity and isolation,

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City & Community 12:2 June 2013
doi: 10.1111/cico.12023

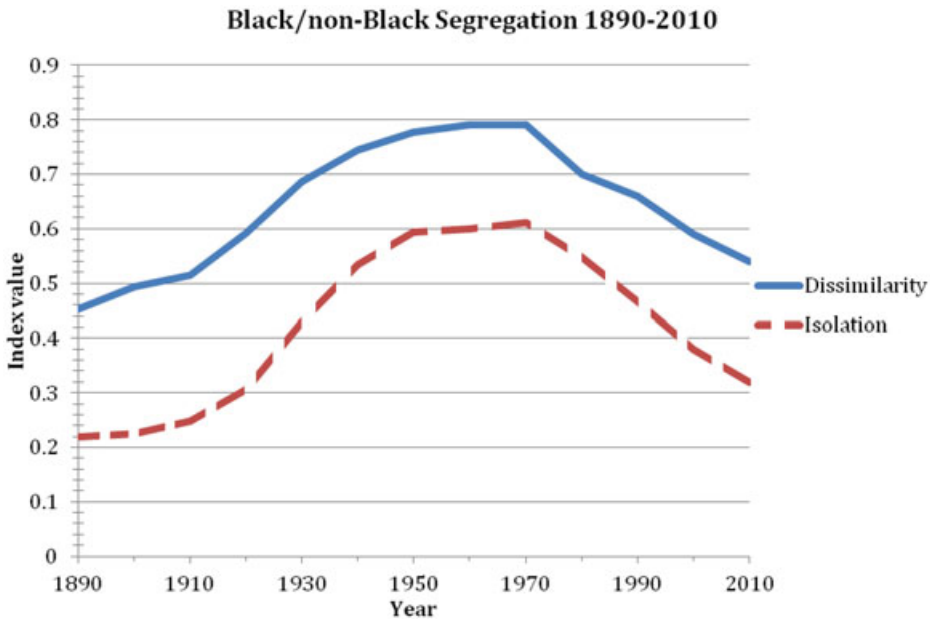

FIG. 1. Note that mean values of the dissimilarity and isolation indices are weighted by the black population of cities (through 1950) or metropolitan areas (beginning 1960). Values prior to 1940 have been adjusted to account for the shift from ward to tract data beginning in 1940. Source: Glaeser and Vigdor (2012), Census enumerations 1890–2010.

between 1890 and 2010. These mean values have been weighted by black population, indicating that they represent the degree of segregation experienced by the "average" black urban resident in each year.

There are two obvious, and possibly controversial, questions to ask about this basic evidence. What explains the decline we observe in our data—and in particular, how can we reconcile the trend we observe with the obvious persistence of intense segregation in many large cities? And even more importantly, what does the trend mean?

As John Logan notes in his essay in this volume, the decline in segregation is less dramatic when examining only the degree of black separation from non-Hispanic whites. He reports declines in black–white dissimilarity on the order of 14 points between 1980 and 2010; the data underlying Figure 1 show a 16-point decline in black–nonblack dissimilarity over the same time period (Logan and Stulz 2011). Methodological considerations make a difference, to be sure, but one can arrive at the fundamental questions above from either Logan's evidence or our own.

WHY SEGREGATION HAS DECLINED

The post-1970 decline in segregation we described in 1999 was also noted by Farley and Frey (1994). To a large extent, the decline in segregation can be attributable to two fundamental forms of migration: from cities to suburbs, and from the Rust Belt (or, to use Logan's term, the "Ghetto Belt") to the Sun Belt.

BLACK SUBURBANIZATION

As of 1960, the Census Bureau reported population statistics for approximately 22,000 Census tracts across the nation, primarily in large cities and the suburbs closely surrounding them. In that year, 20 percent of all Census tracts enumerated had exactly zero African-American residents (Cutler, Glaeser, and Vigdor 1999). By 2010, Census tracts had been extended to blanket the entire United States—even remote rural areas. The 2010 Census reveals that the proportion of neighborhoods with no black residents had declined to one-half of 1 percent (Glaeser and Vigdor 2012).

There is a sensible, policy-related story to explain the trend. The Fair Housing Act opened up residential choices for African-American families. To be sure, not every family had the means to take advantage of these choices. Many of the homogeneous 1960 Census tracts that subsequently integrated were located in suburbs where zoning laws restricted the housing stock to larger, more expensive units. But many families did.

Logan, in his essay, argues that it is unlikely to think that housing antidiscrimination laws such as the Fair Housing Act matter because efforts to enforce them have been "weak." While he rightly notes the lack of hard evidence—it is notoriously hard to evaluate the impact of policies that are introduced simultaneously nationwide—he does not introduce evidence to refute the importance of policy. Should we think it a pure coincidence that segregation—after rising continuously for half a century—began to decline immediately following the Civil Rights era? Should we think that the Supreme Court's 1948 ruling that racial restrictive covenants were unenforceable was irrelevant, that segregation would be the same today even if restrictive covenants had been enforced over the past 65 years?

INTERREGIONAL MIGRATION

For a number of reasons, Northern cities have long been more segregated than Southern cities. Freed blacks began moving to Southern cities during Reconstruction, at a time when cities themselves were small and walking was still the dominant form of personal transportation. Thus, black and white neighborhoods were proximate by necessity (Kellogg 1977). As these cities expanded, new neighborhoods were built in close proximity to rural residential enclaves, many of which were predominantly black and many of which persisted in some form as they became surrounded by later-vintage development. And importantly, formal segregation in public schools and other establishments meant that one of the strongest rationales for residential segregation in the North—avoidance of integrated schools—was irrelevant in the South.

Because Southern cities are less segregated, the broad population movement from Rust Belt to Sun Belt since the 1960s has moved both blacks and whites away from a more-segregated region toward a less-segregated region. While this trend itself may not have a profound effect on the degree of segregation in any one area, there is a negative effect on the population-weighted average degree of segregation in American metropolitan areas.

Logan, in his essay, presents statistics to argue that interregional shifts explain about 23 percent of the observed decline in dissimilarity over this time period (3.2 points of 14 total). The implication—that other factors are more important—is well taken, but arguing that a factor explains at most one-quarter of the decline is not to say that it is irrelevant.

THE EMPTYING OF THE GHETTO

The net effect of both migration trends has been to reduce the proportion of the American population residing in the central cities of the metropolitan areas Massey and Denton (1989) identify as "hypersegregated." These cities, to a large extent, remain highly segregated. However, as their population has declined, they less accurately describe the conditions experienced by the typical resident of metropolitan America. The South Side of Chicago and the East Side of Cleveland still consist largely of overwhelmingly black neighborhoods, but the population density of these neighborhoods has steadily declined decade after decade. Logan argues that some component of black suburbanization may consist of ghettos reassembling themselves in the suburbs. One can certainly point to predominantly black suburbs where this phenomenon has occurred. The near-elimination of all-white Census tracts, however, indicates that it is not the only manifestation of black suburbanization.

To be sure, the depopulation of central cities cannot be considered a thoroughly positive development. Moreover, government actions—from mid-century slum clearance and urban renewal efforts to more modern housing project demolitions—have played an unmistakable role (Cutler, Glaeser, and Vigdor 1999). These aspects of the decline in segregation will be discussed in greater detail below.

OTHER FACTORS ASSOCIATED WITH THE DECLINE IN SEGREGATION

Beginning with our initial study, Cutler, Glaeser, and I have consistently computed segregation as the degree of residential separation between blacks and members of all other races. Given our goal to measure segregation consistently from the 19th century to the present, we did not have much other choice. The Census Bureau has recorded Hispanic ethnicity, for example, inconsistently over time, meaning that there is no way to consistently record the segregation between blacks and non-Hispanic whites.

The diversification of America brought about by the Hart-Celler Act of 1965 and subsequent immigration complicates the measurement of segregation. Segregation between blacks and nonblacks has declined, in part, because many neighborhoods are shared by blacks and Hispanics, or in more limited cases, by blacks and Asians (Logan and Stults 2011). Should residential integration not "count" if it implies integration with racial groups other than non-Hispanic whites? Are there normative reasons to want black–white segregation to equal the level of segregation of Hispanics from whites, or Asians from whites? These are difficult questions, and ones we've never been moved to take a firm stand on. It is fair to point out that the segregation of blacks from non-Hispanic whites, which can be measured more consistently if one keeps the time horizon short, has not fallen as swiftly as black–nonblack segregation, as noted above.

It is also fair to point out, though, that the diversification of America has affected the residential neighborhood composition of both non-Hispanic whites and non-Hispanic blacks. In our written work, we have consistently maintained that black suburbanization and the movement from more- to less-segregated cities are the most important trends underlying the decline in segregation; the movement of nonwhite immigrants into black neighborhoods has indeed occurred, but it is a less salient part of the story. Logan emphasizes the emergence of multiethnic neighborhoods in a set of metropolitan areas

comprising roughly 20 percent of the American population, and argues that about 35 percent of blacks live in such neighborhoods (Logan and Zhang 2013). The "global neighborhood" is certainly a significant element of these large multiethnic cities, but the statistics indicate that these areas are home to less than a tenth of the black population.

Movement of white families into black neighborhoods has occurred as well, but on a very limited scale in a select group of large cities (Vigdor 2002a). When it occurs—as it has in sections of Boston, New York, and Washington DC since 1980—the phenomenon is not always viewed as a positive development. Through one lens, it is a movement from segregation toward integration. Through another lens, however, it is gentrification—a term with pejorative connotations, and often assumed to accompany housing price increases that threaten the long-term stability of the neighborhood. While there are some examples of neighborhoods that transition from black to white, there are also cases where formerly black neighborhoods have established a persistent state of integration spanning more than a decade (Ellen 2000).

IS SEGREGATION REALLY LOWER THAN AT ANY POINT IN THE PAST CENTURY?

Using basic measures of black–nonblack dissimilarity and isolation, our data show that segregation—specifically, the mean index level weighted by black population—is now lower than any point since 1910. There are a few qualifying statements associated with this finding. First, the only way to measure segregation consistently from 1910 to 2010 is to use the black–nonblack distinction; we simply don't know if other measures would support the same finding.

Second, we compute segregation using ward data through 1940. Wards tend to be larger than tracts, and it is well established that use of larger area units depresses segregation indices (Cowgill and Cowgill 1951; Lee et al. 2008). To compensate for that effect, in our original work we added a correction factor to ward-based indices. This correction factor was derived from 1940 census data, which provided both ward and tract tabulations in a number of cities. That is the best we can do, but we do not know for sure what segregation would have looked like using tract data before 1940.

Third, segregation data for recent years are based on metropolitan areas; prior to 1960 data were based on central cities alone. In our original work, we concluded that the switch from city to metro area data made little difference to the computation of segregation indices, but without tract data covering equivalent county-level agglomerations in the early years, we cannot know for certain.

WHAT CAN WE INFER FROM THE DECLINE IN SEGREGATION?

While residential segregation has declined substantially over the past half-century, other measures of racial inequality—employment or earnings indicators, educational trends—have not (Western and Pettit 2005; Neal 2006). The potential role of housing segregation in perpetuating other forms of inequality was one rationale for pursuing fair housing policies (Kain 1968). It is clear that racial inequality is a more complex phenomenon than many had hypothesized. There are numerous lessons to be gleaned from the experiences of the past half-century.

HOUSING MARKET DISCRIMINATION IS LESS PERVASIVE, THOUGH NOT ERADICATED

The entry of African-American families into nearly every census tract suggests that race, in and of itself, is much less of a barrier to geographic mobility than it once was. Significant barriers, particularly economic ones, remain. Moreover, the ability of some African-American households to move into almost every American neighborhood does not imply that no obstacles were breached in the process, or dissuaded other households that remained segregated.

Interestingly, as the United States has become more racially complex, the nature of housing discrimination has also changed. In a 2009 out-of-court settlement involving what was at the time the largest payment in response to rental market discrimination ever recorded, the Justice Department was concerned not with landlords in white neighborhoods, but rather in Los Angeles' Koreatown enclave.[1] The aggrieved parties in that case were primarily Hispanic.

SEGREGATION AND POVERTY CONCENTRATION ARE MORE CLOSELY LINKED

Black–white earnings inequality has always implied that predominantly African-American neighborhoods will tend to be more disadvantaged than predominantly white neighborhoods. Black suburbanization tended to remove the most affluent families from black neighborhoods, raising the poverty rate in those neighborhoods in the process. While cross-sectional studies associated segregation with African-American disadvantage as of 1990, no such association exists as late as 1970 (Cutler and Glaeser 1997; Collins and Margo 2000).

The decline in racial segregation occurred as the American economy became significantly more unequal, and as economic segregation increased (Jargowsky 1996). These trends compounded the effect of the exit of relatively affluent or professional black families from segregated enclaves. Logan's essay rightly points out that the net effect of these trends has been a worrisome increase in statistics measuring the concentration of poverty among blacks.

INCREASED SKEPTICISM SURROUNDS THE HYPOTHESIZED EFFECTS OF SEGREGATION

John Kain's spatial mismatch theory (1968) voiced concern regarding the lack of proximity between African-American neighborhoods and centers of job growth in the suburbs. Subsequent writing identified a number of additional hypothesized mechanisms linking segregation to poor relative outcomes for black residents. Logan's essay refers to "place-based resources" that, to the extent they determine socioeconomic outcomes, would tend to perpetuate inequality.

Testing these hypotheses has always been difficult, because causal mechanisms linking place-based characteristics to individual outcomes are confounded with mechanisms whereby individuals with poor outcomes are consigned to live in places with adverse characteristics. There is no shortage of studies documenting a correlation between residence in a poor neighborhood and poor outcomes; the question is which way causality runs.

The persistence of racial inequality in the face of declining segregation questions the strength of hypothesized mechanisms linking segregation to racial inequality.

In fact, more than basic time-series evidence questions the validity of these hypotheses. The Federal Moving to Opportunity (MTO) program, which randomly assigned residents of central city housing projects to vouchers for housing in low-poverty neighborhoods, has found little evidence of a relationship between neighborhood poverty and economic outcomes. There is some controversy surrounding the interpretation of the MTO project (Clampet-Lundquist and Massey 2008), but the project's principal investigators stand by the findings of null effects on many key dimensions (Ludwig et al. 2008). Quasi-experimental evidence tracking residents assigned to or displaced from housing projects, or evacuees displaced from New Orleans following Hurricane Katrina, have reported analogous findings (Oreopoulos 2003; Vigdor 2007). Careful efforts to disentangle the causal effects of segregation from those of selective migration patterns into and out of segregated places point to selection as the primary force linking segregation to black–white inequality (Vigdor 2002b; Ananat 2011).

HOUSING PRICES ARE A TWO-EDGED SWORD

When residents leave a declining neighborhood, the housing remains. The excess of housing supply over housing demand predicts a decline in prices, and the depopulation of African-American neighborhoods coincides with a substantial decline of housing rents in those areas (Cutler, Glaeser, and Vigdor 1999). The availability of low-price housing in segregated neighborhoods is one reason why measures of racial consumption inequality, stark in some dimensions, are modest in terms of housing (Glaeser, Resseger, and Tobio 2009). On the other hand, the failure of housing prices to appreciate in predominantly African-American neighborhoods can be cited as one reason why the black–white wealth gap has persisted (Flippen 2005). Cheap housing is a good thing when you are first on the market, but once you've bought a house, it serves your interests to see prices rise.

The two-edged nature of housing price movements is quite apparent in those cases where gentrification occurs. Opposition to gentrification rarely centers around the race of newcomers per se, but rather the threat that increased housing demand will force some residents to strike out in search of lower rents. Of course, for home owners, any increase in demand translates into a windfall home equity gain. Research suggests that the price increases associated with neighborhood revitalization are modest in comparison to the value households attach to the revitalization itself (Vigdor 2002a).

RESIDENTIAL SEGREGATION WILL NEVER DISAPPEAR

There are several reasons to think that the current downward trend in segregation will not persist to the point that the phenomenon is eradicated. Isolated examples of gentrification aside, it has been very rare for African-American neighborhoods to reintegrate without significant government intervention. Complete integration might still occur were the population of these neighborhoods to dwindle to zero, and this has in fact happened in some cases (Glaeser and Vigdor 2012). But these cases appear to be even more exceptional than cases of gentrification.

In the complete absence of housing market discrimination, residential segregation will still persist to the extent that there is "preference misalignment." This is the key insight of Schelling (1972), who famously described simple simulations where slight preferences for neighbors of one's own race can lead to equilibria involving stark segregation. Survey evidence indicates that individuals of varying races, though most often supportive of the concept of racial integration, exhibit a preference to live in a neighborhood where their race is overrepresented relative to the population (Vigdor 2003). This is all the Schelling model needs. In fact, there are some American cities that are more integrated than would be predicted on the basis of preferences elicited in surveys (Vigdor 2003).

There are, in fact, some arguments that segregation will rise again. Bayer, Fang, and McMillan (2005) argue that affluent African-Americans often choose to reside in neighborhoods with fewer black neighbors than they would prefer, because there are not very many neighborhoods that are both affluent and predominantly black. Bayer, Fang, and McMillan further suggest that as African-Americans advance in the labor market, more of these wealthy black enclaves will materialize, leading to a reversal of black suburbanization and an increase in measured segregation.

CONCLUSION

The Fair Housing Act and other Civil Rights-era reforms to housing markets have expanded residential choices for black families. The pervasive trends of suburbanization and Sun Belt migration have eroded the monolithic ghettos of the mid-20th century, leaving them largely in place but slowly draining them of their residents.

At the same time, the decline in segregation has proven to be a less transformative societal trend than some might have hoped a half-century ago. Reductions in other forms of racial inequality have failed to keep pace with declines in segregation. Black integration has been concentrated among affluent families; ghettos are now more closely associated with economic disadvantage than they once were.

To those motivated by a desire to eradicate racial disparities wherever they persist, the overall message is thus not quite heartening. A disparity has eroded, but it has proved to be a less consequential disparity than we had once thought. It is clear that continued efforts to combat housing discrimination, while justifiable in the pursuit of fairness and equal opportunity, cannot be counted on to yield dividends in other dimensions of inequality. It is equally clear that surmounting the most significant obstacle to more rapid integration—the failure of large numbers of white families to move into historically black neighborhoods—would be decried rather than lauded in many circles.

Note

[1]See the U.S. Department of Justice press release regarding the settlement: <http://www.justice.gov/opa/pr/2009/November/09-crt-1187.html>.

REFERENCES

Ananat, Elizabeth O. 2011. "The Wrong Side(s) of the Tracks: The Causal Effect of Racial Segregation on Urban Poverty and Inequality." *American Economic Journal: Applied Economics* 3:34–66.

Bayer, Patrick, Hanming Fang, and Robert McMillan. 2005. "Separate When Equal? Racial Inequality and Residential Segregation." National Bureau of Economic Research Working Paper #11507.

Clampet-Lundquist, Susan, and Douglas S. Massey. 2008. "Neighborhood Effects on Economic Self-Sufficiency: A Reconsideration of the Moving to Opportunity Experiment." *American Journal of Sociology* 114:107–143.

Collins, William J., and Robert A. Margo. 2000. "Residential Segregation and Socioeconomic Outcomes: When Did Ghettos Go Bad?" *Economics Letters* 69:239–243.

Cowgill, Donald O., and Mary S. Cowgill. 1951. "An Index of Segregation based on Block Statistics." *American Sociological Review* 16:825–831.

Cutler, David M., and Edward L. Glaeser. 1997. "Are Ghettos Good or Bad?" *Quarterly Journal of Economics* 112:827–872.

Cutler, David M., Edward L. Glaeser, and Jacob L. Vigdor. 1999. "The Rise and Decline of the American Ghetto." *Journal of Political Economy* 107:455–506.

Ellen, Ingrid Gould. 2000. *Sharing America's Neighborhoods: The Prospects for Stable Racial Integration.* Cambridge: Harvard University Press.

Farley, Reynolds, and William H. Frey. 1994. "Changes in the Segregation of Whites from Blacks during the 1980s: Small Steps toward a More Integrated Society." *American Sociological Review* 59:23–45.

Flippen, Chenoa A. 2005. "Racial and Ethnic Inequality in Homeownership and Housing Equity." *The Sociological Quarterly* 42:121–149.

Glaeser, Edward L., Matthew Resseger, and Kristina Tobio. 2009. "Inequality in Cities." *Journal of Regional Science* 49:617–646.

Glaeser, Edward L., and Jacob L. Vigdor. 2012. "The End of the Segregated Century: Racial Separation in America's Neighborhoods, 1890–2010." Manhattan Institute for Policy Research Civic Report #66.

Jargowsky, Paul A. 1996. "Take the Money and Run: Economic Segregation in U.S. Metropolitan Areas." *American Sociological Review* 61:984–998.

Kain, John F. 1968. "Housing Segregation, Negro Employment, and Metropolitan Decentralization." *Quarterly Journal of Economics* 82:175–197.

Kellogg, John. 1977. "Negro Urban Clusters in the Postbellum South." *Geographical Review* 67:310–321.

Lee, Barrett A., Sean F. Reardon, Glenn Firebaugh, Chad R. Farrell, Stephen A. Matthews, and David O'Sullivan. 2008. "Beyond the Census Tract: Patterns and Determinants of Racial Segregation at Multiple Geographic Scales." *American Sociological Review* 73:766–791.

Logan, John R., and B.J. Stults. 2011. "The Persistence of Segregation in the Metropolis: New Findings from the 2010 Census." Census Brief prepared for Project US2010.

Logan, John R., and Wenquan Zhang. 2013. "Global Neighborhoods: New Evidence from Census 2010." Census Brief Prepared for Project 2010.

Ludwig, Jens, Jeffrey R. Liebman, Jeffrey R. Kling, Gregory J. Duncan, Lawrence F. Katz, R.C. Kessler, and Lisa Sanbonmatsu. 2008. "What Can We Learn about Neighborhood Effects from the Moving to Opportunity Experiment?" *American Journal of Sociology* 114:144–188.

Massey, Douglas S., and Nancy A. Denton. 1989. "Hypersegregation in U.S. Metropolitan Areas: Black and Hispanic Segregation Along Five Dimensions." *Demography* 26:373–391.

Neal, Derek. 2006. "Why Has Black-White Skill Convergence Stopped?" Pp. 511–576 in *Handbook of the Economics of Education, Volume 1*, edited by E.A. Hanushek and F. Welch. Amsterdam: Elsevier North-Holland.

Oreopoulos, Philip. 2003. "The Long-Run Consequences of Living in a Poor Neighborhood." *Quarterly Journal of Economics* 118:1533–1575.

Schelling, Thomas C. 1972. "A Process of Residential Segregation: Neighborhood Tipping." Pp. 157–184 in *Racial Discrimination in Economic Life*, edited by A.H. Pascal. Lexington, MA: Lexington Press.

Vigdor, Jacob L. 2002a. "Does Gentrification Harm the Poor?" *Brookings-Wharton Papers on Urban Affairs* 3:133–182.

———. 2002b. "Locations, Outcomes, and Selective Migration." *Review of Economics and Statistics* 84:751–755.

———. 2003. "Residential Segregation and Preference Misalignment." *Journal of Urban Economics* 54:587–609.

———. 2007. "The Katrina Effect: Was There a Bright Side to the Evacuation of Greater New Orleans?" *Berkeley Electronic Journal in Economic Analysis and Policy (Advances)* 7.

Western, B. and B. Pettit. 2005. "Black-White Wage Inequality, Employment Rates, and Incarceration." *American Journal of Sociology* 111:553–578.