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The five articles in this issue all touch on place-based poverty topics; whether and how location matters. The first article summarizes a lecture given by Raj Chetty at the University of Wisconsin–Madison on improving equality of opportunity in America, where he argued that a child's chance of upward mobility varies greatly by where they grow up, with considerable variation existing even within some metropolitan areas. Next are two articles on food access in Detroit, an area often identified as being home to numerous "food deserts." Scott W. Allard, Maria V. Wathen, Sandra K. Danziger, and H. Luke Schaefer use survey data to evaluate the distance that poor and near-poor households in Metropolitan Detroit must travel to access food assistance and food retailers. They conclude that their results offer little support for most conventional food desert hypotheses about food access, finding instead that many vulnerable populations have greater or at least similar access to these resources compared to less vulnerable populations. Dorceta E. Taylor and Kerry Ard suggest a way of reframing the food desert discussion in Detroit, combining environmental justice analysis, and the idea that a city's food environment is a system that is influenced by a variety of factors. Alexandra K. Murphy and Scott W. Allard look at the rise of suburban poverty, and argue that because of the great diversity of locations that contain the suburban poor, no single policy approach will work for all suburbs. They also note that poverty still exists in urban and rural areas as well; it has not simply moved to the suburbs. Finally, Leah Platt Boustan discusses the Great Black Migration out of the South between 1940 and 1970, and how it affected the economic well-being of both blacks who migrated and blacks who were native to the North. Taken together, these articles make a strong case that location does, indeed, matter greatly.

Leveraging big data to help restore the American Dream

> *None of us got where we are solely by pulling ourselves up by our bootstraps. We got here because somebody—a parent, a teacher, an Ivy League crony or a few nuns—bent down and helped us pick up our boots.*
>
> —Thurgood Marshall

The "American Dream" means different things to different people, and there are many different ways to measure whether people have achieved it. Raj Chetty suggests a simple statistic that can be measured empirically: the probability that a child born to parents in the bottom fifth of the income distribution reaches the top fifth of the income distribution as an adult. Since by definition only 20 percent of the population can be in the top fifth of the income distribution, the upper bound on this statistic is 20 percent. That is, if the economic circumstances an individual is born into had no effect on economic mobility, then 20 percent of those born into the bottom fifth would reach the top fifth. In the United States, 7.5 percent of those who start out in the bottom fifth of the income distribution reach the top fifth.[1] This rate is low compared to other developed countries around the world; for example, the equivalent statistic in the United Kingdom is 9 percent, in Denmark 11.7 percent, and in Canada 13.5 percent.[2] This means that the chances of achieving the "American" Dream are almost twice as high if you grow up in Canada.

Differences in economic opportunity within the United States

Policy discussion has looked at these cross-national-differences in mobility, but Chetty warns there are many

This article summarizes the March 2015 Robert J. Lampman Memorial Lecture given by Raj Chetty at the University of Wisconsin–Madison.

Raj Chetty is the Bloomberg Professor of Economics at Harvard University.

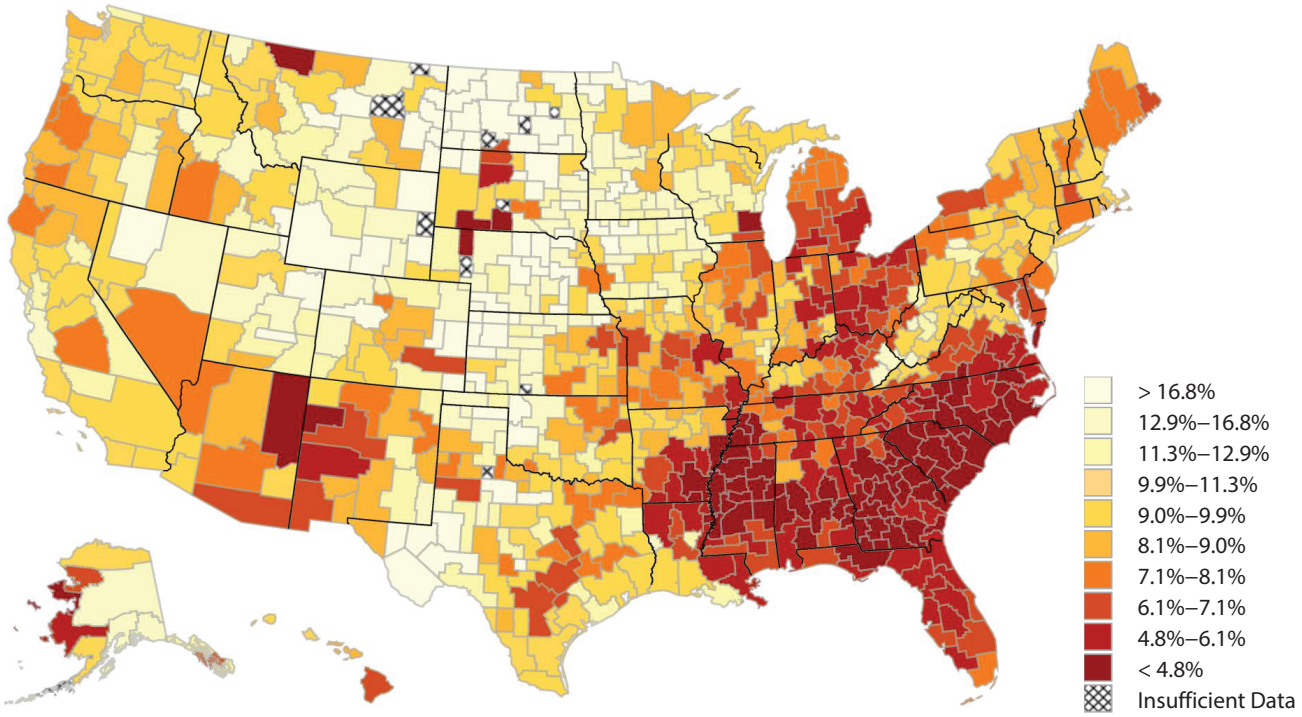

Figure 1. Probability of reaching the top fifth in the income distribution starting from the bottom fifth.

Source: R. Chetty, N. Hendren, P. Kline, and E. Saez, "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," *Quarterly Journal of Economics* 129, No. 4 (2014): 1553–1623.

issues associated with making such comparisons, especially due to the many differences between countries. For this reason, the focus of this article and his lecture that it summarizes is on variation in economic mobility *within* the United States, which, it turns out, is even larger than that across countries.

Chetty describes his recent work with Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, which has documented upward mobility rates for 741 metropolitan and rural areas covering the United States, using anonymous earnings data for 40 million children born in the United States between 1980 and 1993.[3] The study is an example of an important trend in economics according to Chetty, which is the application of "big data" to public policy questions. As Figure 1 shows, they find substantial variation in the probability of rising from the bottom fifth to the top fifth depending on where someone grew up. For example, for a person raised in Milwaukee, Wisconsin, that probability is only 4.5 percent, while in San Jose, California, it is 12.9 percent. Some of the variation is regional; for example, the Southeast tends to have considerably lower rates of mobility than the West Coast. Even within regions, however, nearby areas can have very different mobility rates. There is also often considerable variation within metropolitan areas.

Why does upward mobility differ across areas?

Chetty and colleagues' data indicate that much of the geographic variation in upward mobility can be attributed to the causal effects of childhood environment. That is, the variation in mobility is explained primarily by differences in neighborhoods, schools, and other aspects of a child's surroundings rather than by demographic differences between the people living in different locations, or by other differences between locations, such as the types of jobs that are available. Chetty and Hendren looked at 8 million families that moved between locations, and made use of variation in the age of children when that move takes place. The results, as shown in Figure 2, illustrate that as the child's age increases, the benefit of moving to a location with higher income mobility wanes.[4] So, for example, if those who grew up in an area with high income mobility earn $40,000 on average, and those in an area with low income mobility earn $30,000, then children whose families move from the

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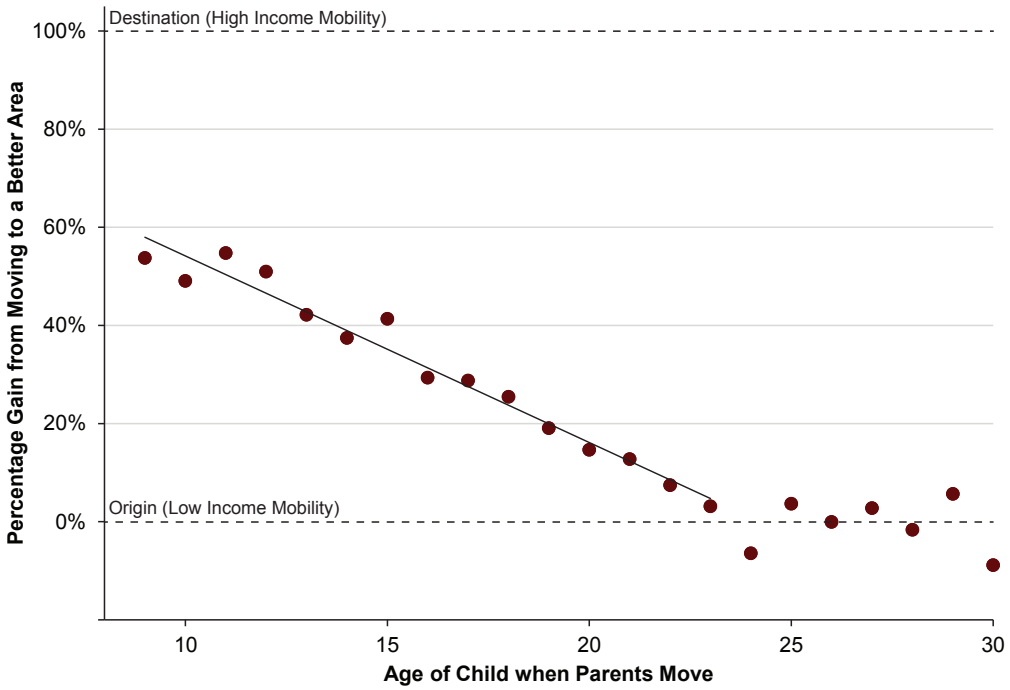

Figure 2. Effects of moving to a different neighborhood on a child's income in adulthood, by age at move.

Source: R. Chetty and N. Hendren, "The Effects of Neighborhoods on Intergenerational Mobility: Childhood Exposure Effects and County Level Estimates," Harvard University mimeo, 2015.

lower to the higher mobility area when they are 9 years old will earn an average of $37,000. In other words, they get 70 percent of the gain of living in the better neighborhood since birth. This pattern appears to be linear until age 23, meaning that every extra year in the better neighborhood matters equally, not just the earliest years. These results suggest that moving even a teenager to an improved environment can have a substantial effect on his or her adult earnings.

The existence of a relationship between the age of a move and adult income does not necessarily imply that the childhood environment causes the variation in income mobility. For example, it is possible that families who move when their children are younger differ in characteristics that are related to adult income from those who move when their children are older. The researchers cite the results of their comparisons of sibling effects within families as evidence that this relationship is actually causal. For example, they find that when a family with siblings of varying ages moves to a better area, younger siblings do better in adulthood, and the adult income gap is proportional to their age difference.

What characteristics are correlated with income mobility?

While evidence indicates that moving children to high-mobility areas provides substantial benefits in the form of greater adult income, that does not explain why some areas have higher mobility than others. Chetty and colleagues identify five factors that are highly correlated with income mobility: segregation, income inequality, school quality, family stability, and social capital.

Racial and economic segregation

Racial and economic segregation are associated with significantly less mobility in Chetty's study.[5] For example, Milwaukee, a city with a high degree of segregation, has very low income mobility. In contrast, Sacramento, where the proportion of people of color is similar to that of Milwaukee, but where the level of integration is much higher, has one of the highest levels of upward mobility in the United States.

Income inequality

The data also indicate that areas with a smaller middle class, that is, people who are between the 25th and 75th percentiles of the national income distribution, have much less upward mobility. Chetty noted that this could indicate a direct link between inequality and social mobility. While there is a large difference of opinion on whether it is appropriate for the government to attempt to reduce inequality by redistributing resources in a more equal manner, most Americans do believe in the ideal of social mobility and equality of opportunity. That is, a child's chance of success should not depend solely on their parents' economic status. Thus, even those who would not advocate for a reduction in inequality for its own sake might take up the cause if it would increase the probability that anyone could achieve the American Dream.

It is also notable that differences between areas in the number of people who fall in the very top of the income distribution

are not highly correlated with differences in mobility. For example, the Bay Area in California is home to some of the richest people in the country, but still has very high rates of social mobility.

School quality

Areas with high social mobility also tend to be areas with indicators of higher school quality, including higher spending on public schools, smaller class size, and higher test scores conditional on income. This finding is consistent with the idea that human capital is important in determining one's level of economic success.

Family stability

The single strongest correlation with social mobility is the proportion of families that are headed by a single parent; areas with more single parents have substantially lower levels of social mobility. The researchers note that this effect exists even for children of married parents. That is, a child growing up in a two-parent family but in an area with a high proportion of single parents is less likely to move up in the income distribution than if that child lived in an area with a low proportion of single parents, all else equal. Thus, although there is a direct effect of whether a child's parents are married, there also appears to be an indirect effect of the type of community in which they live.

Social capital

The concept of "social capital" became widespread in the 1990s, and was the subject of Robert Putnam's book *Bowling Alone: The Collapse and Revival of American Community*. Social capital refers to the benefits provided by social networks and other features of social organization. In areas with high social capital, there are likely other people who will help you when needed. One of the measures of social capital used in Putnam's book is the number of bowling alleys in an area. And in fact, Chetty and colleagues find that the number of bowling alleys is indeed positively associated with rates of social mobility. (Chetty also notes that this finding highlights the distinction between correlation and causality; he does not conclude that building more bowling alleys will increase upward mobility.)

Policy changes that can improve social mobility

If more bowling alleys will not boost social mobility in the United States, what will? To find out, the next step is to explore the causal mechanisms behind the correlations, and identify some promising policy changes. Chetty focused on two types of policies: reducing segregation through affordable housing policies; and increasing teacher effectiveness in order to improve school quality. Chetty noted that he was not implying that other factors were not important, or even that these were the two most important factors in increasing social mobility, just that they were a pragmatic choice, given that income inequality, family stability, and social capital have historically proven difficult to change through policy.

Reducing segregation

One way to try to reduce racial and economic segregation is to give families housing vouchers and encourage them to move to better neighborhoods. The U.S. Department of Housing and Urban Development's Moving to Opportunity (MTO) demonstration sought to evaluate the effects of such vouchers. This demonstration, implemented in the mid-1990s, involved 4,600 families with children living in public housing in high-poverty neighborhoods in Baltimore, Boston, Chicago, Los Angeles, and New York. Families who were randomly assigned to the experimental group received housing vouchers that could be used only in areas with poverty rates below 10 percent, and help from a housing-mobility counselor in finding eligible housing. A control group remained eligible for their current housing assistance, but received no additional help through the program. Over a 10- to 15-year follow-up period, the MTO experiment was found to have no significant effects on economic outcomes for parents, and no systematic effects on academic achievement for children.[6] However, Chetty, Hendren, and Lawrence Katz extended this previous work using data on adult economic outcomes for those who had been children at the time of the demonstration, and found that children who moved to a lower poverty area at a young age had substantially better economic outcomes as adults than those who didn't move.[7] For example, children who moved before the age of 13 from the Martin Luther King Towers public housing development in Harlem, to the lower-poverty area of Wakefield in the Bronx, had earnings that were on average 30 percent higher than children whose families remained in Harlem. The children who moved to a better neighborhood at a young age were also 27 percent more likely to attend college, 30 percent less likely to become single parents, and tended to live in better neighborhoods themselves as adults than the control group. As a result, the movers' own children are now growing up in better environments—so the effects of the initial intervention appear likely to persist to the grandchildren of the original MTO participants. Chetty, Hendren, and Katz also found, consistent with earlier work, that moving had little effect on children who were older at the time of the move.

These findings suggest that moving to a mixed-income neighborhood improved outcomes for low-income children, but this finding alone is not enough to recommend policy, since it tells us nothing about the overall effects of such a policy on a large scale, including the effects on those who already lived in the more desirable neighborhood. While these types of effects are very hard to detect experimentally, results of the analysis of the effects of growing up in different U.S. counties, described above, show that mixed-income areas result not only in better outcomes for children from low-income families, but also in slightly better outcomes for children from high-income families. This suggests that making a neighborhood more economically integrated is

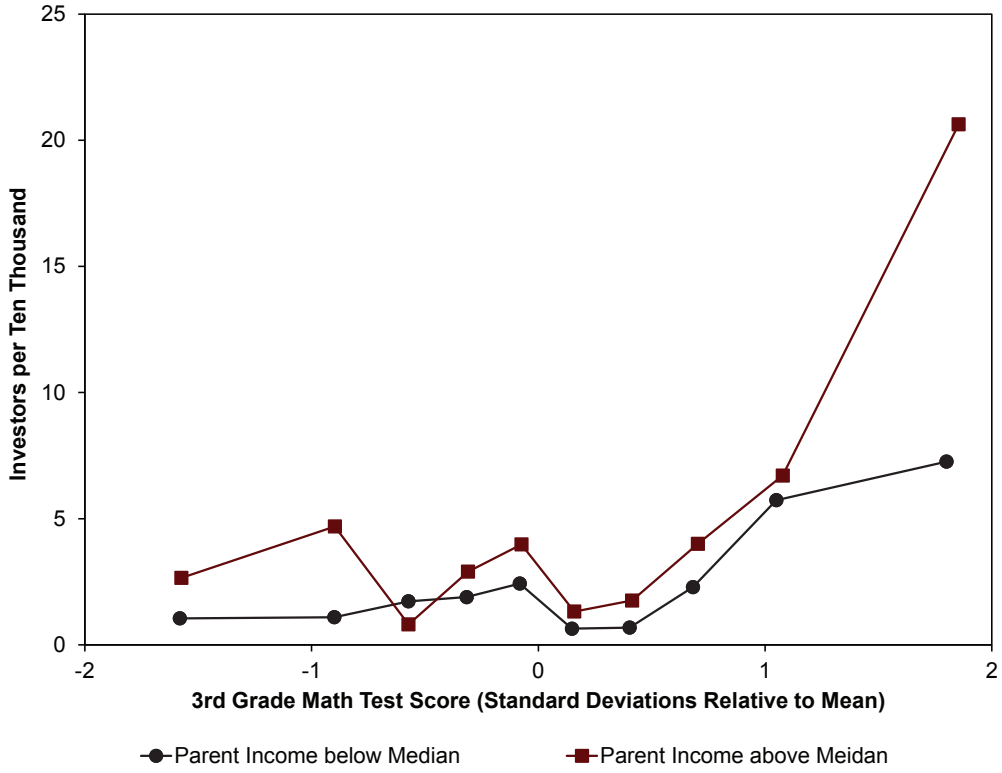

Figure 3. Patent rates by third grade test scores, for children with low- and high-income parents.

Source: A. Bell, R. Chetty, X. Jaravel, N. Petkova, and J. Van Reenen, "The Lifecycle of Inventors," Harvard University mimeo, 2015.

not a zero-sum proposition, but could potentially increase overall well-being, rather than improving outcomes for some and worsening them for others.

If this is true, then a potential policy implication could be to change the current system of subsidized housing vouchers in a way that encouraged families with young children to move to better neighborhoods. Currently, families seeking a housing voucher often get put on a long waiting list, so they may not have the opportunity to use it to move to a better neighborhood until their children are older. However, there are clearly limits both to the scalability and practicality of such a policy; moving people around cannot be the only solution, though it might be a useful short-term approach. In the long run, policymakers and urban planners could think about how to improve existing neighborhoods, and how to design cities that are more integrated.

Improving school quality

Another strategy that Chetty suggests could increase social mobility is through education policy, specifically increasing teacher quality. Earlier research by Chetty and colleagues found that high-quality teachers can have significant effects on the later earnings and on upward mobility of their students.[8] One currently prominent way of measuring teacher quality is to use teacher value-added measures, which gauge how much a given teacher raises students' test scores on average. To assess the effects of having a high value-added teacher, the researchers used test data from 2.5 million children over a 20-year period (another example of big data research), linked to federal income tax returns in order to obtain earnings and other adult outcomes. They find that replacing (or improving through training) a teacher who is in the bottom 5 percent of the distribution of value added with a teacher of average quality, would increase the undiscounted lifetime earnings of the typical child by $50,000, or $1.4 million for each average-sized class of 28 students.

Upward mobility and economic growth

The last set of results discussed by Chetty suggests that improving opportunities for upward mobility might be desirable based not solely on principles of justice, but also from a perspective of economic growth. In particular, he suggests that one child's success need not necessarily come at another's expense. To illustrate this, he discussed one specific pathway to upward mobility: innovation.

Innovation

Using patents for inventions as a proxy for innovation, this analysis uses data on 750,000 patent holders in the United States, linked to tax data. About 2.2 of every 10,000 children born to parents with below-median income will have a patent by the time they are 35 years old.[9] In contrast, those who are born to parents in the top 1 percent of the income distribution are 10 times as likely to have a patent by the same age. This gap in rates of innovation related to parental income could be about genetics and the persistence of ability across generations, or it could be related to differences in childhood

environment as suggested above. To try to identify the cause of this gap, Chetty and colleagues used the same school test data used in the value-added analysis to approximate ability at early ages. This analysis shows that the probability of innovation as an adult is very low for third-graders who are below the 85th percentile of test scores; above that level, the rate of innovation rises sharply. Figure 3 shows this relationship with separate lines for children whose parents have income below the median and those with income above the median. Each data point corresponds to 10 percent of the test score distribution. The two series look very similar right up to the last pair of data points; the children with the highest ability, those in the top 10 percent of the test score distribution, are much more likely to become inventors if they are born to high-income rather than low-income parents.

Thus, even when conditioning on a measure of ability, it appears that there is a large gap in innovation by parental income. This suggests that the difference might be due to differences in the types of resources or environments experienced by children, rather than just differences in ability between children in low- and high-income families. The data also show that as children age, these test score gaps increase, and test scores explain more of the innovation gap. That is, children from low-income families are falling behind in terms of achievement relative to children from high-income families, and this increases over time. Again, this appears to be consistent with the view that the innovation gap could be explained by differences in childhood environments. According to Chetty, this analysis implies that improving equality of opportunity is of interest not only to those who begin at the bottom of the income distribution, but potentially to all families, since increasing the overall amount of innovation could benefit society as a whole.

Policy lessons

Chetty draws three policy lessons from the analyses he described. First, it makes sense to think about issues of social mobility at a local rather than national level. The American Dream appears to be alive and well in some locations, but not in others. Thus, policy should be aimed at increasing social mobility where need is greatest. Second, it is important to focus on improving the childhood environment, and particularly on improving the environment throughout childhood, not just during the earliest ages that receive the most attention in the current policy debate. One short-term solution to improving the childhood environment is to build on the existing subsidized housing voucher programs in order to try to help families move to better areas. A longer-term solution is to improve neighborhoods. Chetty discussed doing this through improving the quality of schools, but noted that there are likely a number of different ways to improve specific neighborhoods. Third, large datasets can be very helpful in both evaluating policy in a rigorous way, and in measuring local progress and performance. In this context, these databases can be used to identify which neighborhoods are in the greatest need of improvement, and which policies actually seem to work.[10]

Chetty concluded his talk by reiterating his principal finding: the probability of rising from the bottom fifth to the top fifth of the income distribution in the United States is 7.5 percent, less than most other developed countries. Chetty suggests that this disparity presents both an opportunity and a challenge. The local variation across places that are relatively similar, and the fact that outcomes improve when people move to particular areas, suggests that social mobility can actually be changed through policy: this is the opportunity. The challenge, on the other hand, is twofold: first, for researchers to figure out what is causing these differences in mobility across areas; and second, for policymakers to figure out how to effectively implement policies suggested by the research.■

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[1]R. Chetty, N. Hendren, P. Kline, and E. Saez, "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," *Quarterly Journal of Economics* 129, No. 4 (2014): 1553–1623.

[2]United Kingdom: J. Blanden and S. Machin, "Up and Down the Generational Income Ladder in Britain: Past Changes and Future Prospects," *National Institute Economic Review* 205, No. 1 (July 2008): 101–116; Denmark: S. H. Boserup, W. Kopczuk, and C. T. Kreiner, "Intergenerational Wealth Mobility: Evidence from Danish Wealth Records of Three Generations," University of Copenhagen mimeo, 2013; Canada: M. Corak and A. Heisz, "The Intergenerational Earnings and Income Mobility of Canadian Men: Evidence form Longitudinal Income Tax Data," *Journal of Human Resources* 34, No. 3 (1999): 504–533.

[3]Chetty, Hendren, Kline, and Saez, "Where is the Land of Opportunity?"

[4]As the dataset used begins in 1996, there are no data available for children whose families moved when they were younger than nine.

[5]Chetty, Hendren, Kline, and Saez, "Where is the Land of Opportunity?"

[6]J. Ludwig, G. J. Duncan, L. A. Gennetian, L. F. Katz, R. C. Kessler, J. R. Kling, and L. Sanbonmatsu, "Long-Term Neighborhood Effects on Low-Income Families: Evidence from Moving to Opportunity," *American Economic Review: Papers and Proceedings* 103, No. 3 (2013): 226–231.

[7]R. Chetty, N. Hendren, and L. F. Katz, "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment," NBER Working Paper No. 21156, National Bureau of Economic Research, 2015.

[8]R. Chetty, J. N. Friedman, and J. E. Rockoff, "Measuring the Impact of Teachers II: Teacher Value-Added and Student Outcomes in Adulthood," *American Economic Review* 104, No. 9 (2014): 2633–2679.

[9]A. Bell, R. Chetty, X. Jaravel, N. Petkova, and J. Van Reenen, "The Lifecycle of Inventors," Harvard University mimeo, 2015.

[10]The data described here may be downloaded at www.equality-of-opportunity.org.

Finding food assistance and food retailers in Detroit

Scott W. Allard, Maria V. Wathen, Sandra K. Danziger, and H. Luke Shaefer

Scott W. Allard is Professor at the Evans School of Public Policy and Governance, University of Washington, and an IRP affiliate. Maria V. Wathen is a graduate student in Social Work and Sociology at the University of Michigan. Sandra K. Danziger is Professor of Social Work and Research Professor of Public Policy at the Gerald R. Ford School, University of Michigan, and an IRP affiliate. H. Luke Shaefer is Associate Professor of Social Work and Public Policy at the University of Michigan.

The Great Recession, officially lasting from December 2007 to June 2009, had a dramatic and sustained impact on work, earnings, and poverty in most communities in the United States. Even though the recession officially ended in 2009, the effects of the downturn persist for many low-income households whose work opportunities and earnings have not returned to prerecession levels. In particular, unemployment and poverty rates have remained above prerecession levels longer than they have after any other recession in modern times.[1] Similarly, rates of food insecurity, Supplemental Nutrition Assistance Program (SNAP) participation, and use of emergency food assistance programs increased during the downturn and also remain well above prerecession levels.[2]

Since the Great Recession there also has been a great deal of interest in the effect of spatial context on household food insecurity and food shopping choices. Much of the research to date has been focused on the presence of "food deserts," areas without large supermarkets or grocery chains that are key sources of affordable and fresh food. Living in food deserts or areas distant from food retailers is thought to make it difficult for households to purchase adequate food and healthy food items, which should lead to lower levels of household food security. Aspects of place may matter to receipt of food assistance as well. For example, some evidence suggests that the presence of nonprofit food assistance programs also can vary widely by neighborhood and across communities, ironically being less accessible to low-income populations most in need.[3] As with food retailers, we might expect spatial access to food assistance programs to shape decisions to participate.

In this article, we link survey data from the first two waves of the Michigan Recession and Recovery Study (MRRS) in metropolitan Detroit to unique information about the location of key food resources in metro Detroit. Specifically, we examine household spatial access to three types of food resources that often are hypothesized to be associated with food assistance and food security outcomes among low-income households: SNAP administrative offices, food pantries, and SNAP-licensed food retailers. Research findings summarized in this article contribute to the study of place, poverty, and food assistance program participation in several ways.[4] First, we are able to link food resource access to key demographic characteristics in a representative sample from a large metropolitan area. Second, we develop precise measures of spatial access to food resources; such measures may be useful to researchers looking to identify factors associated with food security, SNAP participation, or other household food outcomes in subsequent work. Finally, amidst mounting public and private efforts to improve access to food resources, our findings may be relevant to decisions about how and where to allocate program investments.

Access to local food resources

Proximity to local food resources, which include food retailers, restaurants, nonprofit organizations, and public agencies, may shape a variety of household food shopping behaviors, experiences of food insecurity, and decisions to enroll in food assistance.[5] While there are many different types of food resources that may be relevant to household food choices and outcomes, here we focus on access to food assistance programs and local food retailers.

Access to food assistance programs

The spatial presence and accessibility of food assistance resources may be associated with program participation for a variety of reasons. Closer proximity to food assistance program offices should be positively correlated with household knowledge about food assistance programs, benefits, and eligibility. Such information is critical to decisions to apply for assistance.[6] Closer proximity to food assistance programs also may lower commuting costs for eligible households, making it easier to visit offices with application questions, documentation, and eligibility recertification.[7] The commuting burden to local SNAP offices may be particularly relevant when considering that many clients need to complete recertification visits or submit application materials amidst complex daily commutes between work, child care, and home.[8] To the extent that food assistance program participation increases household food security, scholars and policymakers may be concerned with spatial access to food assistance programs beyond the implications of access for enrollment.

Access to food retailers

It is hypothesized that the local retail food environment is connected to household food security and other household food outcomes, because the types of stores nearby shape the products that can be purchased, the prices paid for those

products, and the travel costs associated with food shopping. Particular attention is paid to supermarkets and large grocery stores that carry a wider array of fresh food and offer lower food prices than other types of food retailers. It is expected that closer proximity to supermarkets and large grocery stores, as opposed to convenience stores or specialty stores, will increase the ability of low-income households to have more frequent, affordable, complete, and nutritious meals.[9] Areas containing few or no supermarkets or large grocery stores commonly are described as "food deserts."

While it is often argued that lower-income neighborhoods and areas with concentrations of racial and ethnic minorities live greater distances from supermarkets or large grocery stores and have less access to such food retailers than predominantly white, higher-income areas, the research evidence is decidedly mixed. Predominantly black and Hispanic neighborhoods have been found to have less access to supermarkets and large grocery stores than predominately white areas. Lower-income areas also have been found to contain fewer chain grocery stores or supermarkets than middle- or upper-income areas.[10] Yet, other studies do not find significant differences in food retailer access across race and class groups. For example, a study of Erie County, New York, found white, black, and racially mixed census block groups to have access to similar numbers of supermarkets within a five-minute drive when controlling for population size and median household income. Black and racially mixed neighborhoods had far greater access to smaller groceries and specialty food retailers within a five-minute drive than white neighborhoods.[11] Similarly, a U.S. Department of Agriculture (2009) project examining food retailer access nationally found the median U.S. household to be 0.85 miles from the nearest supermarket, with the median nonwhite household 0.63 miles from the nearest supermarket, and the median white household 0.96 miles from the nearest supermarket.[12]

The lack of consensus in research findings tends to reflect differences in how food access is conceptualized and measured.[13] Research using more sophisticated measures of food resource access that take into account a broad array of stores and accurately calculate store travel times or distances appear less likely to find race or class gaps consistent with the food desert hypothesis. Similarly, few studies are able to link the location of a representative sample of households in a local space to the location of different types of food resources. Even fewer studies have information about household food behaviors or outcomes that can be linked to measures of food resource access.[14]

Our study design

We examine food resource access in metropolitan Detroit with a particular focus on three types of local food resources often thought to be associated with household food acquisition, consumption, and security: SNAP administrative offices, food pantries, and licensed SNAP retailers.

The Michigan Recession and Recovery Study (MRRS)

Data on household characteristics and location come from the MRRS, a panel survey of a representative sample of working-age adults in the three-county Detroit metropolitan area (Macomb, Oakland, and Wayne counties). The MRRS gathers detailed information about employment history, income sources, education and training, safety net program participation, material hardships, health and mental health, marital and relationship status, and basic household demographics. In Wave 1, the MRRS completed hour-long in-person interviews between late October 2009 and March 2010 with 914 adults between the ages of 19 and 64. A second wave of hour-long in-person interviews was completed between April and August 2011 with 847 of the original 914 respondents. When survey weights are applied, the MRRS sums to the American Community Survey (ACS) estimated total population count for Macomb, Oakland, and Wayne counties of metropolitan Detroit.[15] Below, we report analyses that linked data from MRRS households with income at or below three times the federal poverty line pooled across the two survey waves to information about access to SNAP eligibility offices, food pantries, and SNAP retailers in metropolitan Detroit.

SNAP administrative office locations

Measures of spatial access to SNAP administrative offices are based on the location of 23 SNAP administrative offices in the three-county Detroit metropolitan area that were in operation in March 2011.[16] Even though Michigan and many other states have pursued SNAP modernization efforts to reduce the need for face-to-face visits for enrollment in SNAP, such alternative options to visiting one's nearest local office were not in place during the MRRS data collection.[17] As a result, we believe it is extremely likely that MRRS respondents were required to visit one of these 23 SNAP offices at some point in the enrollment, verification, and recertification processes.[18]

Table 1
Characteristics of MRRS Households at or below 300 Percent of Federal Poverty Line

Household or Respondent Characteristic	Percentage of Respondents
Household income	
At or below the federal poverty line	35.1%
100–200% of the federal poverty line	33.1
200–300% of the federal poverty line	31.8
Respondent is black	43.7
Geographic location of household	
Urban	33.3
Suburban	66.7
Household received SNAP benefits in past year	38.1

Notes: All households have income within 300 percent of the federal poverty line. Data are pooled across two survey waves, and are weighted. Unweighted $N = 969$.
Source: Michigan Recession and Recovery Study.

Food pantry survey

A list of 407 charitable nonprofit food pantries or emergency food programs located in the study area of the MRRS were compiled from online directory listings and the United Way of southeastern Michigan 2-1-1 directory in Spring 2012. A letter of invitation to participate in a short survey was sent to each listed pantry, followed by attempts to complete a 10-minute telephone survey about location, program services, client characteristics, and funding. Of the 407 listed programs, 332 were identified to be operational at the time of the survey. Interviews were completed with 263 of these 332 charitable food programs for a response rate of 79.2 percent. To be included in access calculations, a program or provider had to be operating an assistance program at the time of the interview.[19]

SNAP retailer data

Finally, the location of food retailers in metro Detroit was obtained from a USDA Food and Nutrition Service list of food retailers licensed to accept SNAP benefits in the State of Michigan for the years 2008 and 2010.[20] A two-step process was used to code SNAP food retailers into two broad store type categories: (1) large chain and non-chain grocery stores or supermarkets; and (2) non-grocery food retailers (i.e., drug stores, gas stations, convenience stores, specialty food stores). First, we identified well-known national and regional chain stores (e.g., Kroger, 7-11) and coded them appropriately. We then entered the street addresses of the remaining SNAP retailers into Google Maps and used street view images of each store to code retailers as grocery store/supermarkets or non-grocery food retailers. Only food retailers that provided visual evidence (e.g., signs, visible displays, advertised prices) of carrying a full line of groceries, including fresh foods, were coded as a grocery store or supermarket. Given that coding was based only on what could be observed from a street view, we believe that our estimates provide a conservative estimate of available grocery stores. These data, therefore, likely understate the number of retailers that might, in actuality, carry a line of groceries that is broad enough for a family to meet all their food needs.

Calculating access to food resources

With these unique data we are able to accurately connect households in Detroit to an array of important food resources. In this article we report three different types of access measures for each type of local food resource.[21] One set of food assistance resource access measures determines the distance between MRRS respondents' street address and the street address of a given food resource (e.g., SNAP administrative office, SNAP retailer). Second, we use these distance calculations to determine whether a respondent was within one, two, or three miles of a particular food resource. Finally, we determine the number of SNAP retailers, SNAP grocery stores or supermarkets, and SNAP non-grocery stores within a one-mile radius of each respondent's residential location.[22]

Access to SNAP offices

Table 2 shows mean distance to SNAP administrative offices by household income level and SNAP receipt. Poor households in Detroit live closer on average to SNAP offices than households with income just above the federal poverty threshold. For example, as shown in the first column, households at or below the poverty line live about one mile closer to a SNAP office on average compared to households with income between 100 percent and 200 percent of poverty and to households with income between 200 percent and 300 percent of poverty. Similarly, black respondents live about 1.5 miles closer on average to a SNAP office than nonblack respondents. The urban-suburban difference is even greater, with urban residents living on average more than two miles closer to a SNAP office than suburban residents. As expected, SNAP residents in metropolitan Detroit tend to live closer to a SNAP administrative office than poor households not receiving SNAP.

Table 2 also shows the share of households within one, two, and three miles of a SNAP office. We find that poor households are disproportionately likely to live within relatively short distances of SNAP offices. For example, about 70 percent of Detroit households with income below the poverty line live within three miles of a SNAP office,

Table 2
Proximity to SNAP Office among MRRS Households at or below 300 Percent of Federal Poverty Line

	Proximity to SNAP Office			
	Average Miles to Nearest	Percent Within 1 Mile	Percent Within 2 Miles	Percent Within 3 Miles
Household Income				
At or below poverty line	2.5♣	14.9%♦	45.5%♣♦	70.7%♣♦
100–200% of poverty line	3.4♦	8.9♦	28.4♦	47.3♦
200–300% of poverty line	3.5♦	3.7♣	24.6♦♣	44.1♦
Race				
Black	2.3♦	14.3	54.9♦	80.7♦
Nonblack	3.8♦	5.5	16.3♦	34.1♦
Residential Area				
Urban	1.6♦	21.3♦	70.0♦	94.2♦
Suburban	3.8♦	3.4♦	15.0♦	34.8♦
Program Participation				
Receiving SNAP	2.6♦	15.9♦	46.4♦	67.9♦
Not receiving SNAP	3.4♦	5.3♦	25.1♦	46.3♦

Notes: For household income, which has three subcategories rather than two as in the other categories, ♣ indicates a statistical difference only between that cell and each of the other two at or below the 0.10 level. For the other categories, ♦ indicates a statistically significant difference between the two cells at or below the 0.10 level. Household survey weights applied. Data are pooled across the two waves. Unweighted $N = 969$.

Sources: Michigan Recession & Recovery Study; State of Michigan Department of Human Services (DHS); Detroit Food Pantry Survey.

compared to less than half of near-poor households. Black respondents and urban residents are considerably more likely to live within three miles of a SNAP office than nonblacks and suburban residents. Households receiving SNAP are also all considerably more likely to live within three miles of a SNAP office than households not receiving SNAP. This latter finding persists even when we limit analysis to households with income at or below 200 percent of poverty (not shown in Table 2).

Access to food pantries

Table 3 shows the results of an analysis of proximity to food pantries. While differences in the average distance to food pantries follow a similar pattern to distance to SNAP offices, the magnitude of the differences is much smaller. We find large urban-suburban differences in distance to the nearest food pantry, with urban residents being almost one mile closer to a food pantry compared to suburban residents. Poor households were more likely than near-poor households to be within one mile of a food pantry; however, nearly every household with income at or below 300 percent of the poverty line in metropolitan Detroit is within three miles of a food pantry.

Table 3
Proximity to Food Pantry among MRRS Households at or below 300 Percent of Federal Poverty Line

	Proximity to Food Pantry			
	Average Miles to Nearest	Percent Within 1 Mile	Percent Within 2 Miles	Percent Within 3 Miles
Household Income				
At or below poverty line	1.0♣	63.0%♣	85.7%	93.9%
100–200% of poverty line	1.3♦	46.2♦	79.5	92.4
200–300% of poverty line	1.4♦♣	42.0♦	78.0	92.4
Race				
Black	0.8♦	74.5♦	89.5	95.7
Nonblack	1.5♦	32.3♦	74.7	90.8
Urban	0.6♦	87.6♦	96.7♦	100.0♦
Suburban	1.5♦	32.5♦	73.5♦	89.5♦
SNAP recipients	1.0♦	65.8♦	85.1	93.0
Not receiving SNAP	1.4♦	41.6♦	78.8	92.9

Notes: For household income, which has three subcategories rather than two as in the other categories, ♣ indicates a statistical difference only between that cell and each of the other two at or below the 0.10 level. For the other categories, ♦ indicates a statistically significant difference between the two cells at or below the 0.10 level. Household survey weights applied. Data are pooled across the two waves. Unweighted $N = 969$.

Sources: Michigan Recession & Recovery Study (MRRS); State of Michigan Department of Human Services (DHS); Detroit Food Pantry Survey.

Access to food retailers

In contrast to some reports and research on food retailer access in low-income communities that identify large gaps in access to food retailers, we find that poor households, black residents, and households located in the City of Detroit have greater access to SNAP retailers of all kinds, and to grocery stores or supermarket SNAP retailers than higher-income households, or households that do not participate in SNAP. We find that poor households in metropolitan Detroit are within one mile of 24 retailers accepting SNAP on average, including 2.7 grocery stores or supermarkets.

Households with black respondents are no more likely to live further away from a SNAP grocery store than nonblack households, although they are slightly closer to a non-grocery retailer on average. We do find that residents of Detroit are, on average, closer to SNAP grocery or supermarket retailers than suburban residents, by almost a quarter of a mile. Interestingly, we find that SNAP recipients are closer on average to SNAP grocery and non-grocery retailers than households not receiving SNAP. Such findings hold up when we consider households with income at or below 200 percent of poverty (not shown in Table 4).

Conclusions

Our findings provide several important insights into patterns of local food resource access in metropolitan Detroit. First, we find that many population subgroups identified in the research literature as being vulnerable to low food resource access, such as blacks or urban residents, have greater or comparable spatial access to several different types of food resources compared to less vulnerable population sub-groups. We also do not find much support for most conventional food desert hypotheses about access to food retailers among the poor and near poor. Second, we find respondents receiving SNAP tend to have closer proximity to SNAP offices, food pantries, and groceries that accept SNAP than those households not receiving SNAP.

Apart from advancing scholarly understandings of food resource access, we believe our work is relevant to policy, advocacy, and program implementation on the ground. Our findings suggest that proximity to food retailers may not be the critical ingredient to ensuring that people can purchase adequate food for a healthy and active life. Instead, greater attention may be placed on economic shocks, health limitations, and financial hardship, which are known to be associated with greater likelihood of experiencing food insecurity or other food outcomes. Improved understanding of spatial variation in food assistance resources and food retailers also could translate into more effective allocation of public program dollars and philanthropic resources. For example, apart from addressing household-level characteristics that may shape program participation, it may

Table 4
SNAP Licensed Food Retailer Access among MRRS Households at or below 300 Percent of Federal Poverty Line

	Average Distance to Nearest SNAP Retailer			Number of Stores within 1 mile		
	All Retailers	Grocery/ Supermarket	Non-Grocery	All Retailers	Grocery/ Supermarket	Non-Grocery
Household Income						
At or below poverty line	0.27♠	0.54♦	0.28♠	24.1♦	2.7♦	21.4♦
100–200% of poverty line	0.36♦	0.63♦	0.37♦	17.4♦	2.4♦	15.0♦
200–300% of poverty line	0.39♦	0.76♠	0.42♦	13.6♦	2.1♠	11.6♦
Race						
Black	0.25♦	0.55	0.25♦	27.9♦	2.8	25.1♦
Nonblack	0.41♦	0.71	0.43♦	11.3♦	2.1	9.3♦
Urban	0.18♦	0.50♦	0.19♦	34.6♦	3.25♦	31.4♦
Suburban	0.42♦	0.71♦	0.44♦	10.6♦	1.95♦	8.6♦
SNAP recipients	0.27♦	0.54♦	0.28♦	24.5♦	2.7	21.8♦
Not receiving SNAP	0.38♦	0.70♦	0.40♦	14.9♦	2.2	12.7♦

Notes: For household income, which has three subcategories rather than two as in the other categories, ♠ indicates a statistical difference only between that cell and each of the other two at or below the 0.10 level. Where all numbers in a subgroup are marked with ♦, all three cells are statistically different at or below the 0.10 level. For the other categories, ♦ indicates a statistically significant difference between the two cells at or below the 0.10 level. Household survey weights applied. Data are pooled across the two waves. Unweighted $N = 969$.

Sources: Michigan Recession & Recovery Study (MRRS); US Department of Agriculture, Food and Nutrition Service (FNS).

be important to consider how local communities can shape the local food resource environment to increase participation in SNAP or charitable emergency food programs. In the end, having an accurate understanding of how the local food resource context varies across a community may open a new suite of policy levers and mechanisms to support families in need.■

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[1]C. DeNavas-Walt, B. D. Proctor, and J. C. Smith, "Income, Poverty, and Health Insurance Coverage in the United States: 2010," Census Bureau, Current Population Reports #P60-239, 2011.

[2]A. Coleman-Jensen, M. Nord, M. Andrews, and S. Carlson, "Household Food Security in the United States in 2011," United States Department of Agriculture, Economic Research Service, Economic Research Report, Number 141, 2012; US Department of Agriculture, Food and Nutrition Service, Data and Statistics, retrieved April 29, 2015, from http://www.ers.usda.gov/media/884525/err141.pdf.

[3]S. W. Allard, *Out of Reach: Place, Poverty, and the New American Welfare State* (New Haven: Yale University Press, 2009).

[4]This article draws on S. W. Allard, M. V. Wathen, and S. K. Danziger, "Place, Poverty and Program Participation: The Relationship between Food Resource Access and Receipt of SNAP Assistance," Working Paper, 2015; S. W. Allard, and H. L. Shaefer, "Neighborhood Food Infrastructure, Economic Shocks and Very Low Food Security among Children," Working Paper, 2015; and S. W. Allard, M. V. Wathen, and S. K. Danziger, "Bundling Public and Private Supports to Cope with the Effects of the Great Recession," *Social Science Quarterly* (forthcoming). This research received support from the University of Kentucky Center for Poverty Research and the Institute for Research on Poverty (IRP) RIDGE Center for National Food and Nutrition Assistance Research. This research also received support from the Office of the Assistant Secretary for Planning and Evaluation, U. S. Department of Health and Human Services, the Office of the Vice President for Research at the University of Michigan, the Ford Foundation, and the John D. and Catherine T. MacArthur Foundation.

[5]K. M. Neckerman, M. Bader, M. Purciel, and P. Yousefzadeh, "Measuring Food Access in Urban Areas," Paper presented at the National Poverty Center conference on Understanding the Economic Concepts and Characteristics of Food Access, January 23, 2009.

[6]Allard, *Out of Reach*; S. Bartlett, N. Burstein, and W. Hamilton, "Food Stamp Program Access Study: Final Report," Economic Research Service, Report #E-FAN-03-013-3, 2004; B. O. Daponte, S. Sanders, and L. Taylor, "Why Do Low-Income Households Not Use Food Stamps? Evidence from an Experiment," *Journal of Human Resources* 34, No. 3 (1999): 612–628; R. J. Kissane, "What's Need Got to Do with It? Barriers to Use of Nonprofit Social Services." *Journal of Sociology and Social Welfare*, 30, No. 2 (2003) 127–148; K. S. Martin, J. T. Cook, B. L. Rogers, and H. M. Joseph, "Public Versus Private Food Assistance: Barriers to Participation Differ by Age and Ethnicity," *Journal of Nutrition Education and Behavior* 35, No. 5: 249–254.

[7]Bartlett, Burstein, and Hamilton, "Food Stamp Program Access Study"; R. J. Kissane, "'We call it the badlands': How Social-Spatial Geographies Influence Social Service Use," *Social Service Review* 84, No. 1 (2010): 3–28; Martin, Cook, Rogers, and Joseph, "Public Versus Private Food Assistance."

[8]R. Widom, and O. A. Martínez, "Keeping Food on the Table: Challenges to Food Stamps Retention in New York City." New York, NY: Urban Justice Center, Homelessness Outreach and Prevention Project, 2007.

[9]See M. Bitler and S. J. Haider, "An Economic View of Food Deserts in the United States," *Journal of Policy Analysis and Management* 30, No. 1 (2011): 153–176; N. I. Larson, M. T. Story, and M. C. Nelson, "Neighborhood Environments: Disparities in Access to Healthy Foods in the U.S.," *American Journal of Preventive Medicine* 36, No. 1 (2009): 74–81; M. Ver Ploeg et al., "Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences," U.S. Department of Agriculture, Economic Research Service, Administrative Publication No. AP-036, June 2009, retrieved April 29, 2015 from http://www.ers.usda.gov/publications/ap-administrative-publication/ap-036.aspx.

[10]L. V. Moore and A. V. Diez Roux, "Associations of Neighborhood Characteristics with the Location and Type of Food Stores," *American Journal of Public Health* 96, No. 2 (2006): 325–331; L. M. Powell, S. Slater, D. Mirtcheva, Y. Bao, and F. J. Chaloupka, "Food Store Availability and

Neighborhood Characteristics in the United States," *Preventive Medicine* 44 , No. 3 (2007): 189–195; R. E. Walker, C. R. Keane, and J. G. Burke, "Disparities and Access to Healthy Food in the United States: A Review of Food Deserts Literature," *Health & Place* 16, No. 5 (2010): 876–884.

[11]S. Raja, C. Ma, and P. Yadav, "Beyond Food Deserts: Measuring and Mapping Racial Disparities in Neighborhood Food Environments," *Journal of Planning Education and Research* 27, No. 4 (2008): 469–482.

[12]Ver Ploeg et al., "Access to Affordable and Nutritious Food."

[13]Bitler and Haider, "An Economic View of Food Deserts in the United States."

[14]S. W. Allard, "Placing Food Security in a Spatial Context," The Committee on National Statistics, National Academies of Sciences and the Food and Nutrition Board of the Institute of Medicine, 2013.

[15]See T. K. Adams, J. Lepkowski, M. Elkasabi, and D. Battle, "Michigan Recession and Recovery Study (MRRS): Sampling and Weights Documentation," University of Michigan, Institute for Social Research, 2011. The response rate for Wave 1 was 82.8 percent and 93.9 percent for Wave 2. The Office of Management and Budget (OMB, 2013) officially defines the Detroit Metropolitan Statistical Area (MSA) to include Lapeer, Livingston, Macomb, Oakland, St. Clair, and Wayne counties, but the three study counties in the MRRS contain nearly ninety percent of the MSA's total population.

[16]Office locations were pulled in March 2011 from the State of Michigan Department of Human Services (DHS) website (http://www.michigan.gov/dhs/).

[17]Michigan Legal Help, Food Assistance Program (FAP, or Food Stamps), retrieved November 11, 2013, from http://michiganlegalhelp.org/self-help-tools/public-benefits/food-assistance-program-fap-or-food-stamps; State of Michigan, Department of Human Services, "How Do I Apply for Food Assistance Benefits in Michigan?" DHS-PUB-0113-314785-7, 2010, retrieved November 11, 2013, from www.michigan.gov/documents/dhs/DHS-PUB-0113_314785_7.pdf.

[18]See Allard, Wathen, and Danziger, "Place, Poverty and Program Participation."

[19]Surveys were completed at the Population Research Center at NORC and the University of Chicago by a trained telephone survey interviewer between August 2012 and April 2013. When reaching a food assistance program, the survey interviewer asked to speak to the program executive or to a program manager that could answer some basic questions about the programs available on-site. Many organizations were not eligible for the survey: 37 were no longer operational; 29 were not food assistance programs; contact information could not be located for 9 other listings. Twelve programs refused to participate in the survey and 57 programs were never reached to complete calls. All organizations not completing surveys were contacted at least 10 times by the interviewer, but only 37 of the 57 programs not reached appeared to have a functioning phone system. A total of 1,674 call attempts were made.

[20]These lists represent retailers in Michigan that were authorized to receive SNAP at the end of the Fiscal Year (09/30/08 for 2008 data and 9/30/10 for 2010 data). Retailers apply to receive authorization to accept SNAP benefits. To become authorized, retailers must offer on a continuous basis food from three of four food groups (meat, poultry, fish; bread or cereal; vegetables or fruit; dairy), or must verify that at least 50 percent of retail sales come from eligible staple foods. The Food and Nutrition Service (FNS) at USDA reviews applications, conducts background checks for prior involvement with SNAP, and assesses store eligibility. FNS advises applicants that it may visit a store to confirm eligibility. See US Department of Agriculture, Food and Nutrition Service. 2015. "Retail Store Eligibility USDA Supplemental Nutrition Assistance Program." Retrieved April 29, 2015, from http://www.fns.usda.gov/snap/retail-store-eligibility-usda-supplemental-nutrition-assistance-program.

[21]Working papers cited above provide a more extensive array of measures, although our findings are robust across many different distance and travel-time calculations.

[22]Results reported here using straight-line distance access measures are very similar to results using access measures that take into account mode of transit and travel time. See Allard, Wathen, and Danziger, "Place, Poverty and Program Participation" and Allard and Shaefer, "Neighborhood Food Infrastructure, Economic Shocks and Very Low Food Security among Children."

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Edited by Emma Caspar

Detroit's food justice and food systems

Dorceta E. Taylor and Kerry J. Ard

Dorceta E. Taylor is Professor of Environmental Sociology at the University of Michigan. Kerry J. Ard is Assistant Professor of Environmental and Natural Resource Sociology at the Ohio State University.

Numerous studies have been conducted on the accessibility of healthful food in poor urban areas. Many of these use the presence of supermarkets and large grocery stores as the sole indicator of access to nutritious food. In contrast, corner stores, mini marts, gas stations, liquor stores, and fast food restaurants are identified as sources of unhealthful food. Previous food access studies conducted in Detroit have often focused on determining distance to food sources. In this article, we identify critical shortcomings of the traditional approach to studying food access, and argue for a more systematic process.[1] We use this approach to assess food accessibility in Detroit, with a focus on three questions: (1) What kinds of food outlets are available to residents within the city? (2) What is the nature of the Detroit food environment and how does it vary by the racial composition and population of neighborhoods? and (3) How do citizen-driven initiatives shape the food landscape?

Detroit is an important food system to study, as it has been in the center of research and policy discussions about food access for more than a decade. It has been a part of a debate over whether "food desert" is the appropriate term to describe areas that have limited or no access to supermarkets, and whether depopulated and deinstitutionalized inner-city areas can attract and retain full-line grocery stores. Detroit is also a city with vibrant food movements centered around issues of healthful food and social justice, which further enhances its utility as a model food system.

Food deserts

A variety of terms are used to describe low-income urban food environments. One of the most common, and controversial, is the term "food desert," frequently used to describe areas in which residents lack access to fresh, nutritious, and affordable food. The U.S. Department of Agriculture (USDA) defines food deserts as "urban neighborhoods and rural towns without ready access to fresh, healthy and affordable food. Instead of supermarkets and grocery stores, these communities may have no food access or are served only by fast food restaurants and convenience stores that offer few healthy, affordable food options." It describes the consequences of food deserts as, "The lack of access contributes to a poor diet and can lead to higher levels of obesity and other diet-related diseases, such as diabetes and heart disease."[2] In addition to identifying the sources of both healthful and unhealthful food, the USDA also explicitly connects lack of access to supermarkets and grocery stores to poor diet and unfavorable health outcomes. The USDA defines a census tract as a food desert tract if it has a poverty rate of 20 percent or more or median income at or below 80 percent of the median family income for the area; at least 500 residents; and at least 33 percent of the tract's population lives more than a mile from a supermarket or large grocery store.

In the United States, poor urban communities are often described as food deserts. Some argue that food deserts have become more prevalent as many cities have lost half or more of their supermarkets and large grocery stores since the 1970s.[3] Residents of these communities often live more than a mile from supermarkets or large grocery stores, and lack convenient transportation to access these stores.[4] Detroit has been described as an urban food desert for almost a decade. A widely cited study of the Detroit metropolitan area found that poor neighborhoods with a high percentage of African American residents were on average 1.1 miles farther from supermarkets than poor neighborhoods with a low percentage of black residents.[5] The researchers also found that poor neighborhoods were farther from supermarkets than wealthier ones.

Although the food desert framework identifies community deficits, studies that use this approach do not often consider adaptive strategies, nor do they include analyses that enhance our understanding of community agency, assets, and strengths. Studies of where people obtain food outside of commonly examined food outlets are not common, and even less common are studies that explore how food-insecure people obtain food, and how they perceive their own food consumption behavior. Subsistence activities such as farming, fishing, hunting, and gathering, are often ignored.

Questioning the definition of food deserts

Researchers who recognize these gaps in the food desert literature have questioned the USDA's definition of food deserts and the depiction of communities to which the term has been applied. Studies that identify only supermarkets and large grocery stores miss a variety of small food outlets that carry healthful food that urban consumers desire, including independent grocers and small ethnic grocery stores. For example, one study used the term "food oases" to describe neighborhoods that had ethnic food stores—overlooked in most food environment studies—providing affordable, culturally desired food.[6] Another study, which found that

only about 10 percent of Detroit could be classified as a food desert using the USDA definition, suggested that the city could best be described instead as a "food grassland" with small pockets lacking easy access to grocery stores.[7]

Another approach to assessing and improving access to food is the concept of food justice. The food justice movement combines an interest in growing and consuming healthful food sustainably with an interest in social justice. For example, the Detroit Black Community Food Security Network, a group of individuals and organizations committed to building food security and advocating for food justice for black residents of Detroit, operates a seven-acre urban farm called "D-town."[8] D-Town's farmers come from various neighborhoods but gather at the farm to grow produce. Participation in the farm thus provides access to food that is not linked to the neighborhoods these activists live in, or the food outlets those neighborhoods contain.

A new approach to studying food accessibility

Here, we take a new approach to studying food accessibility in Detroit by combining the food justice approach with the idea that the city's food environment is a system that is influenced by forces both within and outside the city. The city has human, ecological, economic, social, policy, and political dimensions that are interconnected. The availability of food in a particular geographic area cannot be gauged only by the presence of large grocery stores. Instead, food availability is affected by many factors, including the desire and ability of producers to sell and distribute food in a particular community, the ability and willingness of consumers to purchase food, the barriers and incentives for retailers and distributors to service an area, and the involvement of citizens in both food policy decision-making and food production. Food access is also affected by the strategies people use to obtain food, including shopping outside their own neighborhoods, buying where products are on sale, carpooling to go food shopping, and subsistence activities such as fishing and hunting. In fact, a study of the food purchasing habits of low-income Detroit residents found that only 11 percent relied exclusively on food outlets in their own neighborhoods to obtain food; most people shopped for food outside their neighborhoods, and coordinated trips to share rides to distant stores.[9]

Although scholars have critiqued the food desert approach and offered alternatives, both the food oases and food grassland approaches still rely primarily on the presence or absence of supermarkets and grocery stores. The food justice approach goes further than these alternatives in challenging researchers to add environmental justice, human rights, and structural racism and discrimination analyses to the examination of food access and type of food provider. Our contribution is to embed the food justice approach more fully in the framework of environmental justice and the conceptualization of a city's food environment as a system. We hope that this will inspire other scholars to think about and analyze food access in ways that will provide a more comprehensive understanding of the people and the communities being studied.

Table 1
Detroit Food Sources Included in the Study

Category of Food Outlet	Frequency	Percentage
Restaurants and Other Food Service	1,245	36%
Small Groceries and Convenience Stores	1,110	32
Pharmacies, Dollar, and Variety Stores	306	9
Specialty Food Stores such as Delicatessens and Bakeries	279	8
Farms, Gardens, and Farmers' Markets	206	6
Wholesalers and Food Manufacturers, Processors, and Distributors	157	4
Food Pantries and Soup Kitchens	100	3
Supermarkets and Large Grocery Stores	96	3
Total	3,499	100

Note: Details do not sum to total due to rounding.

Detroit's food system

Studies of food access in Detroit that look only at supermarkets and large grocery stores are examining less than 3 percent of the city's food outlets. Even studies that include fast food restaurants, gas stations, liquor stores, and convenience stores are counting less than half of the city's food outlets. We addressed this omission by including a wide variety of food outlets, as these are the places we observed people obtaining food; we included clubs, caterers, food cooperatives, urban farms, and food pantries.

Where can Detroit residents obtain food?

We identified and studied 3,499 food outlets in Detroit, as shown in Table 1. Small groceries and convenience stores (including liquor stores and party stores with mini marts, and gas stations that sell food) dominate the grocery sector, constituting nearly one-third of all food outlets. Of these, liquor and party stores account for 13 percent of all food venues, 11 percent are gas stations, and 8 percent are small groceries, convenience stores, or corner stores. Although there is a tendency to categorize all of these stores as unhealthful food outlets, more research is needed to find out which actually sell healthful foods.

Restaurants and other food service venues are the most ubiquitous, accounting for over one-third of the food outlets studied. About half of these are full-service restaurants and about 30 percent serve fast food. Other food service providers counted were bars, clubs, caterers, and coffee or other beverage shops.

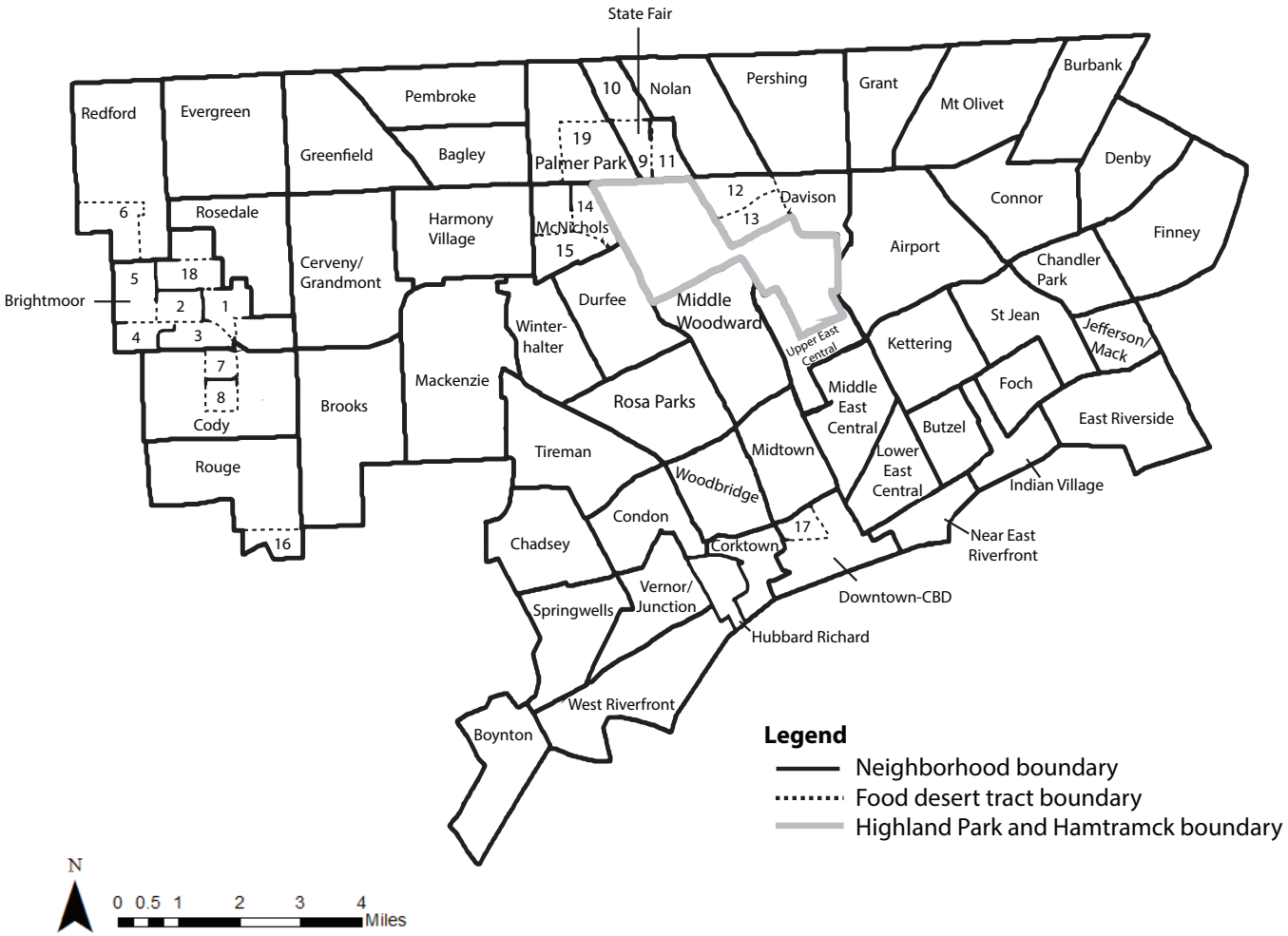

Figure 1. Detroit neighborhood boundaries and USDA-designated food desert census tracts.

There are more urban farming, community and school gardening, and farmers' market venues in Detroit than there are supermarkets. These vendors, accounting for 6 percent of all food venues, provide residents with places to purchase fresh, locally grown produce. While we identified 69 community gardens and 42 school gardens in our study, we believe this to be an undercount as some gardens do not publicize their name or location. The city's thriving urban farming and gardening community helps to support 61 farmers' and produce markets, as well as seven dairies.

Detroit is an important industrial center, a waterfront city, and the site of two of the busiest international crossing points between the United States and Canada. Thus in addition to the food retailers, food service providers, and food producers described above, the city has a robust supply chain network for food products, including 97 wholesalers, 31 food manufacturers or processors, and 29 food distributors. We included these businesses in our study as they play an important role in supplying the city and region with food, and can play a role in hunger alleviation by supplying community-based food assistance programs with excess food.

Finally, nonprofit organizations play a critical role in helping to improve food access in Detroit. Religious institutions and other community-based organizations operate 98 food pantries and soup kitchens. There are also two food banks in the city that collect and distribute food to partner food pantries, soup kitchens, and shelters.

How does the food environment vary by neighborhood?

A rapid decline in population over the past six decades has contributed to inequitable distribution of food in Detroit. The city's population peaked at nearly 1.9 million in 1950, with 84 percent of the population white, and 16 percent black. By 2012, the population had declined to just over 700,000, with non-Hispanic whites making up less than 8 percent of the population, blacks in the majority with 83 percent, Hispanics at 7 percent, and Asians at 1 percent.[10] In 2013, the unemployment rate was 14.8 percent, the median household income was $26,955, 38 percent of residents were living below the poverty level, and a similar proportion was receiving federal Supplemental Nutrition Assistance Program (SNAP) benefits.[11]

Table 2
Food Access in Detroit by Racial Composition and Population of Neighborhoods

Neighborhood Characteristics	Total Population	Number of Residents per Food Outlet: Supermarkets, Full-Line Groceries	Small Groceries, Mini Marts	Specialty Food Stores	Pharmacies, Variety Stores	Restaurants, Food Service	Supply Chain	Farms, Farmers' Markets, Gardens	Food Pantries	All Food Outlets
Detroit Total	**713,766**	**7,435**	**643**	**2,558**	**2,333**	**573**	**4,546**	**3,465**	**7,138**	**204**
Racial Composition:										
1%–40% Black	56,813	6,313	563	2,705	2,273	563	1,775	2,185	6,313	175
41%–70% Black	64,533	8,067	485	1,467	2,017	200	7,170	1,956	10,756	110
71%–90% Black	196,369	6,771	631	1,835	2,455	561	2,182	2,158	5,168	179
91% or more Black	396,051	7,921	701	3,701	2,343	841	15,233	7,072	8,427	266
Population Size:										
1–5,999	35,804	5,967	317	542	1,705	119	389	676	2,984	54
6,000–10,999	99,830	5,254	591	3,120	2,496	739	6,239	2,936	4,160	213
11,000–20,999	331,012	8,487	690	3,678	2,470	704	13,240	4,244	7,043	243
21,000 or more	247,120	7,723	710	2,716	2,226	727	10,297	6,027	14,536	246

Detroit is a city of neighborhoods, but it is sometimes hard to reach agreement on what particular areas of the city are called, and where the boundaries lie. This has been complicated by the large decline in population which has left once intact neighborhoods with large swaths of vacant land and a patchwork of housing. For our analysis, we use the 54 neighborhoods identified by the Detroit Planning and Development Department. Figure 1 shows these neighborhood boundaries, as well as the boundaries of the USDA-designated food desert census tracts.

Neighborhoods tend to be segregated by race and ethnicity. Although Detroit is a predominantly black city, the proportion of blacks in particular neighborhoods varies greatly, from 5 percent in Springwells, to 97 percent in Bagley. The proportion of non-Hispanic whites also varies, from less than 1 percent in Bagley, to 38 percent in Corktown. Finally, although Hispanics make up less than 7 percent of Detroit's population, they account for 72 percent of Springwells residents, and 36 to 72 percent of residents of five other neighborhoods.

As Table 2 shows, there is one food outlet for every 204 Detroit residents, and the distribution of food sources varies by the racial composition and population density of neighborhoods. Although the relationship between the proportion of black residents and the presence of supermarkets or large grocery stores is not linear, neighborhoods with the lowest percentage of blacks tend to have a more favorable ratio of people to food sources compared to neighborhoods with a higher percentage of black residents. For example, neighborhoods that were between 1 percent and 40 percent black had one supermarket or large grocery store for every 6,313 residents, and one agricultural outlet such as a community or school garden, farmers' market or produce stand, or urban farm for every 2,185 residents. In contrast, neighborhoods that were 91 percent or more black had one large food store for every 7,921 residents, and one agricultural outlet for every 7,072 residents. Neighborhoods with fewer than 11,000 residents also had much better ratios of supermarkets and large grocery stores to residents than did larger neighborhoods. Larger neighborhoods also have lower prevalence of agricultural food outlets and emergency food providers compared to less populous neighborhoods.

How do citizen-driven initiatives shape the food landscape?

Urban agricultural initiatives are important in Detroit. Today's urban agriculture movement is citizen-driven, and residents farm for health reasons in addition to farming for recreational, subsistence, and commercial purposes. As shown in Table 1, in addition to the farms, community and school gardens, and farmers' markets that make up 6 percent of city food outlets, another type of citizen-driven food outlet, food pantries and soup kitchens, make up another 3 percent.

Is Detroit a food desert?

Although it is a common perception that the entire city of Detroit is a food desert, the USDA has labeled only 19 of the 297 Detroit census tracts as food deserts, as shown in Figure 1. In examining these areas, we found some of the inconsistencies that arise when relying too heavily on the location of supermarkets and large grocery stores as the primary criteria for defining access to healthful foods. For example, the food desert census tract in the Brightmoor neighborhood identified on the map as tract 5 is mostly occupied by a park. A neighborhood group, Neighbors Building Brightmoor, has helped to create a 14-block urban farm, build an edible play garden for children called the Treedome Park, manage the youth market garden, beautify the park, and create vegetable gardens on vacant lots. Their food production activities are coordinated with St. Christine's Soup Kitchen.[12] Even with a robust network of alternative food sources such as these, however, we did identify some neighborhoods that were lacking in both

the traditionally counted large food stores and in urban agricultural food sources and food assistance programs. Thus we conclude that although it is erroneous to label the entire city of Detroit as a food desert, limited access to food, particularly nutritious food, is a fact of life for some Detroit residents.

Addressing food accessibility in Detroit

Given the enduring food access issues in some areas of Detroit, food production has become an important activity for some city residents. In acknowledgment of this, the Detroit City Council amended the city zoning code in 2013 to identify and define a number of types of agriculture as legitimate land uses in the city, and to set standards for them. These include aquaculture, hydroponics, composting, farmers' markets, farm stands, and urban farms. This change makes it easier for residents to undertake agricultural initiatives for commercial and non-commercial purposes. For example, the lifting of a ban on hoop houses allows farmers to extend the growing season, collect additional rainwater for irrigation, and grow crops in areas that do not have access to city water. The new rules may also help to curb the spread of "guerrilla" farms, where residents farm without the appropriate permits, and risk being prosecuted for doing so.

Although the new agricultural ordinance may facilitate the conversion of more vacant land to food production purposes, many of these lots contain toxic contamination from prior industrial use. Residents wanting to farm in these areas face costs associated with soil testing and remediation. While some have used raised-bed techniques to avoid soil contamination issues, the added costs of building these beds could still deter some residents. Subsistence fishing and hunting can also pose health risks if contaminated fish or wildlife are consumed.

In addition to citizens' food production expanding access to healthful foods, two new supermarkets opened in Detroit in 2013, Whole Foods and a Meijer big box store. Both stores received millions in state and local tax incentives. Whole Foods opened a store in Midtown, a gentrifying area that already had a large number of food outlets, including three large supermarkets and nine farmers' markets, produce markets, or community gardens. In contrast, the new Meijer store opened in the low-income State Fair neighborhood, which had no other supermarket or large supermarket, has no produce or farmers' markets, and is the location of two of the USDA food desert census.[13] We believe that in the future, effort should be made to ensure that new supermarkets are placed in the most underserved neighborhoods.

In 2013, the Michigan Food Policy Council concluded that more investment in local food systems infrastructure was desirable as this would build capacity and create jobs. The council identified improved access to healthful foods as a high priority, and saw farmers' markets as key drivers of economic growth. In order for farmers' markets to effectively play this role, the ability to process Electronic Benefit Transfer cards should be expanded to allow more SNAP customers to shop at these markets, and training and technical assistance should be provided to farmers to help them to participate in the program.

Detroit's food producers alone cannot make enough food to meet all the city's needs. Although there are many farms on the outskirts of the city, it is difficult to get that produce to market in Detroit and other cities quickly and effectively. The need for transportation to markets, warehouse, processing space, and storage facilities is a barrier that many small farmers have difficulty overcoming. Value-added production such as canning and pickling, which could ultimately increase profits, may also be cost-prohibitive for many small farmers to launch. Food hubs can help address these problems by providing a centrally located facility that is professionally managed to facilitate the aggregation, storage, processing, distribution, and marketing of locally or regionally produced food. The Eastern Market, the largest historic public market district in the country, is increasingly playing this role.

Delivering fresh and nutritious foods to clients at emergency food outlets should also be a priority. While Detroit's food pantries and soup kitchens currently obtain food from farmers' markets, farms, restaurants, and other businesses, more could be done. Some farmers report that they would like to donate unsold food to assistance programs, but lack the necessary transportation, fuel, staff, or time. One program that is currently working to get fresh and healthful foods to low-income consumers is Earthworks Urban Farm, which distributes farm produce to participants in youth programs and the federal Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and uses farm products in the meals served at an associated soup kitchen.[14]

Finally, more work could also be done to get more healthful food into retailers such as small groceries, corner stores, mini marts, convenience stores, and liquor stores. Improvement is needed in matching customer needs with business projections, particularly in those areas where a large portion of the customer base relies on federal food assistance. The disbursement of funds at particular times of the month results in uneven demand, which makes it challenging for small retailers to maintain appropriate stock of fresh produce and other perishable items. Detroit Fresh: The Healthy Corner Stores Project, is an example of a program that works to facilitate stocking of healthful food in these small stores.[15]

Linking food access to health and place

Researchers examining food deserts have linked unfavorable health outcomes with limited availability of nutritious food.[16] However, this research relies on the often incorrect assumption that people buy all or most of their food in their immediate neighborhood.[17] Also, although there is a

large body of research on the health effects of exposure to toxins, researchers have yet to examine how factors such as exposure to environmental hazards, food consumption, food access, and health are interrelated. We urge researchers to undertake more work to help identify whether poor diet, exposure to environmental hazards, or both, are related to observed health outcomes when both factors are present.

Conclusions

Detroit's food system is complex, and the work described here illustrates the necessity of examining many more facets of the food environment than the supermarkets and large grocery stores that researchers and policy analysts have traditionally considered. The detailed analysis described briefly here can help food activists and policymakers to identify neighborhoods with low food access and limited access to healthful food and work to target efforts to improve food access more effectively. We also suggest reframing the food desert discussion, and introducing new approaches to analyzing food access, including the one described here, combining environmental justice analysis and the idea that a city's food environment is a system that is influenced by a variety of factors.

We recommend that the definition of food access used by the USDA to identify food desert census tracts be refined to reflect the many pathways though which people obtain food. Thus, small grocers in Detroit that have been participating in projects to sell healthful foods should be included in the USDA's Food Atlas database, along with supermarkets and full-line grocery stores.[18] Other indicators of access to nutritious foods should include access to urban farms, community gardens, farmers' markets, produce markets, meat markets, food cooperatives, community-supported agriculture, and dairies.■

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[1]This article is based on D. E. Taylor and K. J. Ard, "Food Availability and the Food Desert Frame in Detroit: An Overview of the City's Food System," *Environmental Practice* 17, No. 2 (2015): 102–133.

[2]U. S. Department of Agriculture. "Designated Food Desert Census Tracts," http://apps.ams.usda.gov/fooddeserts/TractBreakdown.pdf, accessed December 31, 2013.

[3]See, for example, N. Cameron, C. G. Amrhein, K. E. Smoyer-Tomic, K. D. Raine, and L. Y. Chong, "Cornering The Market: Restriction of Retail Supermarket Locations," *Environment and Planning C: Government and Policy* 28, No. 5 (2010): 905–922.

[4]See, for example, U.S.D.A, "Designated Food Desert Census Tracts."

[5]S. N. Zenk, A. J. Schulz, B. A. Israel, S. A. James, S. Bao, and M. L. Wilson, "Neighborhood Racial Composition, Neighborhood Poverty, and the Spatial Accessibility of Supermarkets in Metropolitan Detroit," *American Journal of Public Health* 95, No. 4 (2005): 660–667.

[6]A. Short, J. Guthman, and S. Raskin, "Food Deserts, Oases, or Mirages? Small Markets and Community Food Security in the San Francisco Bay Area," *Journal of Planning Education and Research* 26, No. 3 (March 2007): 352–364.

[7]D. Devries and R. Linn, "Food for Thought: Addressing Detroit's Food Desert Myth," *The Common Denominator: D3 Newsletter* (2011).

[8]For more information about D-Town, see http://detroitblackfoodsecurity.org/.

[9]D. J. Rose, "Captive Audience? Strategies for Acquiring Food in Two Detroit Neighborhoods," *Qualitative Health Research* 21, No. 5 (2011): 642–651.

[10]U.S. Census Bureau, *Census of Population and Housing*, Department of Commerce, Washington, DC, 2010.

[11]U.S. Census Bureau, *State and County QuickFacts*, Department of Commerce, Washington, DC, 2013.

[12]Neighbors Building Brightmoor, History and Newsletter (August 2014), available at www.neighborsbuildingbrightmoor.org (accessed October 16, 2014).

[13]The opening of the Meijer store did not change the food desert designation of the tract.

[14]Earthworks Urban Farm, "Earthworks Urban Farm: A Project of Capuchin Soup Kitchen," available at www.cskdetroit.org/index.php/EWG (accessed November 25, 2013).

[15]K. Pothukuchi, "Reimagining Neighborhood Corner Stores, Starting with Produce," *Michigan Citizen*, September 5, 2010, p. A11.

[16]See, for example, K. Budzynska, P. West, R. T. Savoy-Moore, D. Lindsey, M. Winter, and P. K. Newby, "A Food Desert in Detroit: Associations with Food Shopping and Eating Behaviours, Dietary Intakes, and Obesity," *Public Health Nutrition* 16, No. 12 (2013): 2114–2123.

[17]See, for example, T. F. LeDoux and I. Vojnovic, "Going Outside the Neighborhood: The Shopping Patterns and Adaptations of Disadvantaged Consumers Living in the Lower Eastside Neighborhoods of Detroit, Michigan," *Health & Place* 19 (2013): 1–14.

[18]The USDA Food Atlas database is a collection of census-tract level statistics on food environment indicators intended to provide a spatial overview of a community's ability to access healthy food and its success in doing so, and to stimulate research on the determinants of food choices and diet quality. The atlas may be accessed at: http://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas.aspx.

The changing geography of poverty

Alexandra K. Murphy and Scott W. Allard

Alexandra K. Murphy is Assistant Professor of Sociology at the University of Michigan. Scott W. Allard is Professor at the Evans School of Public Policy and Governance, University of Washington, and an IRP affiliate.[1]

Poverty in the United States has found a new home: the suburbs. Beginning in the year 2000, for the first time in American history, the total number of poor people living in the suburbs exceeded those living in central cities in the 95 largest metropolitan areas. This growth has since continued. More than two-thirds of the increase in poverty in major metropolitan areas has taken place in their suburbs.[2] By 2012 the suburbs accounted for 56 percent of the poor population in these metropolitan areas, exceeding the number of urban poor by 3.5 million.[3] Comparable numbers of urban and suburban persons now live in extreme poverty.[4] Importantly, the rise of suburban poverty has not corresponded with decreases in urban poverty. Poverty rates continue to remain higher in central cities and rural areas than in suburbs. Nevertheless, suburbs in metropolitan areas across the United States are now faced with challenges once thought to be distinctly urban: poverty, joblessness, and decline.[5] In this article, we draw on some of the most recent research of scholars working in this field to better define suburban poverty, describe its trends, and outline several consequences for suburban safety nets. We then conclude with a brief discussion of implications for research and policy.

What is poverty? What is a suburb? What is suburban poverty?

Before we can begin to understand how the geography of U.S. poverty is changing, we first need to pin down clear, operational definitions for the concepts of "poverty," "suburb," and "suburban poverty." Poverty is commonly defined as the lack of income and resources necessary to live at standards that society considers adequate. Oftentimes we think of persons living in poverty as being unable to secure food, shelter, or other basic needs. The federal government measures poverty using a formula based on a household's annual income and the number of persons in the household. People living below a certain income threshold, called the federal poverty line, are considered officially poor. In 2014, the federal poverty line was set at $24,418 for a family of four in the United States.[6] According to this measure, in 2013, 14.5 percent of the U.S. population was considered to live in poverty.[7] Although there are several limitations to this definition, most researchers using census data to examine suburban poverty rely on this federal poverty measure because it is consistently gathered across time and place.

In regards to "suburb," many Americans have strong cultural ideas of what constitutes a "suburb." The typical image includes post-World War II tract housing built for car-owning families, cul de sacs, and shopping malls. Yet, suburbs are actually extremely heterogeneous in their demographic composition, economy, and land use patterns; most bear little resemblance to these stereotypical images. Given such diversity, perhaps it is fitting, then, that there is no formal or official definition of "suburb" in the United States. In some cases, researchers follow the standard used by the U.S. Census Bureau, which defines suburbs as municipalities with populations greater than 2,500, that are located in metropolitan statistical areas, and that are not central cities. In other cases, the definition of "suburb" that researchers use depends on the available data and the research questions being asked. For example, in Murphy and Wallace's study of antipoverty organizational deprivation across urban and suburban areas, they define suburbs as zip codes that exist within this census definition. Zip codes are used as the unit of analysis because they are the smallest spatial unit at which the data is available.[8] In Allard's work on suburban poverty and the safety net, however, he uses tract-based definitions to capture demographic change and county-level definitions of urban versus suburban because counties are a key administrative unit for most safety net programs. How researchers decide to define "suburb" typically does little to change our understanding of how the geography of poverty has changed in the last 20 years. Differences in how urban and suburban places are defined matter, however, when exploring more nuanced aspects of suburban poverty and when comparing findings across different studies.

The term "suburban poverty" is widely used to refer to poverty located in suburban areas. This broad term is useful when making distinctions between urban, suburban, and rural poverty. However, the concept masks important variations in how poverty is situated in the suburbs. Poverty may exist at the individual, neighborhood, municipal, or county level or some combination thereof. For example, poor people may live in middle class suburban neighborhoods in middle class suburban municipalities. They might also live in poor suburban neighborhoods in middle class suburban municipalities. Or they might live in poor suburban neighborhoods in poor suburban municipalities. Each of these different manifestations of poverty in the suburbs poses potentially unique policy challenges and, accordingly, will require different policy solutions. When discussing suburban poverty, then, specifying the level(s) at which it exists is important.

Why has suburban poverty risen?

There is no single explanation for the rise of suburban poverty. Though popular narratives suggest that it is the

consequence of the foreclosure crisis or the effects of gentrifying cities, in truth, there are many factors driving the rise in suburban poverty that vary across regions, between metropolitan areas, and between suburbs within these same metro areas.[9] This explains, in part, why we see suburban poverty rising outside of cities that are very different from one another, from those that are economically thriving, like Houston, and growing in population, like Atlanta, to those that are struggling economically, like Las Vegas, and shrinking in population, like Detroit.[10]

A central factor driving the trend in rising suburban poverty is changes in the economic conditions and labor markets of metropolitan areas. Indeed, much of the rise in suburban poverty appears to be explained by downward mobility among longtime suburban residents. Some have fallen below the poverty line because of job loss or a decline in their earnings. Others are aging and finding themselves living on a reduced income. Certainly the Great Recession has contributed greatly; it hit the suburbs more directly than any prior recession in the United States.[11]

One of the biggest factors driving the rise in the number of poor persons and poverty rates in suburbs is simply processes of urbanization and the growth of population living in suburban places. Even if poverty rates remain constant, growth in the suburban population will naturally lead to increases in the number of poor persons in suburbs.[12]

The migration of people into and out of the suburbs has also contributed to the rise of poverty in these places. Suburban job growth in the latter portion of the 20th century, along with the promise of safer communities and stronger schools, drew low-income urban residents to the suburbs in pursuit of better opportunity.[13] More recently, more affluent persons have begun to move back into newly (re)developed urban areas in cities like New York, Miami, Seattle, and Chicago. Poor residents in these and similar cities increasingly have found themselves priced out of the housing market and have turned to seeking affordable housing in nearby suburbs.[14] Additionally, immigrant settlement patterns have changed remarkably in the past 20 years. Rather than settling into cities upon arrival as has historically been the case, working poor immigrants are now first settling in suburbs, particularly in the American South.[15] While poor populations moving into the suburbs have been one significant driver of suburban poverty, so too has the outmigration of middle income families who are either moving back into central or into newly developed exurbs, leaving poorer suburban residents behind.[16]

Finally, changes in federal and local housing policy as well as the foreclosure crisis have played an important role. The foreclosure crisis hit suburban areas particularly hard, resulting in the loss of homes for some and a decline in housing values for others. This, in turn, has negatively affected the housing-related labor market in these places. Adding to this has been federal policy efforts to deconcentrate urban poverty by dismantling public housing projects and shifting housing assistance to the provision of housing choice vouchers. Low-income families that hold such vouchers can use them to rent market rate housing anywhere in a metropolitan area, enabling many to move to the suburbs.[17]

Suburban poor people and their neighborhoods

Currently, little is known about who the suburban poor are, what their lives are like, and how their profiles and experiences compare and contrast with the urban and rural poor. Recent work by the Metropolitan Policy Program at the Brookings Institution, however, does offer some helpful insights.[18] The urban and suburban poor appear to share quite similar labor market profiles. Comparable proportions of the urban and suburban poor are of working age. Poor persons in both cities and suburbs tend to be employed, full time and part time at the same rates. Suburban and urban poor households have similar earnings from work. Aside from these similarities, though, important differences exist. The suburban poor are much more likely to be homeowners than the urban poor, reflecting the fact that suburbs were originally designed for homeownership and zoning practices have reinforced those intentions. The suburban poor are more likely to have completed high school and live in two-parent households than the urban poor. There are also important racial differences. The racial and ethnic composition of the suburban poor mirrors the nationwide distribution; accordingly, the suburban poor are much more likely to be white than the urban poor.

While there are certainly suburban poor people living amidst middle class affluence, increasingly, researchers are finding that the poor are spatially concentrating in particular neighborhoods in the suburbs.[19] Typically scholars identify census tracts where 20 percent or more of the population live below the poverty line as high-poverty neighborhoods or places experiencing concentrated poverty.[20] Since 2000, the number of high-poverty suburban tracts has increased 64 percent. Suburbs now contain nearly as many high-poverty tracts as cities (4,313 vs. 5,353).[21]

This particular trend is noteworthy for two reasons. First, a large body of literature demonstrates that when poverty concentrates spatially, the deleterious effects of poverty on individuals and communities is compounded.[22] Living below the poverty line in a middle class neighborhood is not the same as living below the poverty line in a neighborhood with other similarly situated people. Second, there is evidence suggesting that not all suburbanites may be experiencing the effects of such concentrated poverty equally. Indeed, though the suburban poor are more likely to be white, low-income African Americans and Hispanics are much more likely to live in suburban neighborhoods with higher poverty rates. They are also more likely to live in suburban municipalities with lower performing schools, weaker transportation systems, and less capacity to address poverty.[23] The suburbs are thus not presenting the same sets of opportunities or the same challenges for low-income whites and low-income people of color; patterns of racial inequality that we have observed in cities seem to be reproducing in the suburbs.

Addressing the needs of the suburban poor

One particular challenge that poor people living in the suburbs face is accessing the safety net, especially those social service programs that are delivered through state and local government or nongovernmental actors. Social service programs provide a wide array of supports and assistance to low-income families to address material needs, employment issues, or other aspects of well-being. Because such programs often are delivered through local nonprofit organizations, the availability of social services varies across local places.[24] There is mounting evidence that there is a significant dearth of social service programs in suburbs.

In one study, Scott Allard and Benjamin Roth examine nonprofit social service provision in five program areas across 67 different suburban municipalities located in metropolitan Chicago, Los Angeles, and Washington, DC, in the wake of the Great Recession.[25] Using information about the location and expenditures of nonprofit service organizations formally filing with the Internal Revenue Service (IRS), the authors calculate per-poor-person social service program revenues at the municipal level. The authors find most suburban municipalities have *no nonprofit organizations* operating in any given program area. For example, 54 out of 67 suburban municipalities had no registered employment service nonprofits, and 37 of 67 had no registered nonprofits that specialized in providing emergency food assistance. Even in communities where nonprofit service organizations were present, most were poorly resourced. Looking at the 30 suburban municipalities with at least one registered emergency food assistance nonprofit, the authors find per poor person revenues of those nonprofits to be less than $50 annually in 18 of the 30 municipalities. While these data do not capture large regional providers that offer important services and programs in the suburbs, the absence of locally registered nonprofits suggests there is little local indigenous capacity.

The dearth of social service provision in the suburbs is especially pronounced when compared with the number of social service organizations available in urban census tracts with similar poverty rates. For example, drawing on national data, Alexandra Murphy and Danielle Wallace examine variation in the absence of three different types of social service organizations across cities and suburbs: (1) hardship organizations like shelters and food pantries, which help people meet their daily needs; (2) employment organizations that provide services such as job training; and (3) education organizations, such as those that operate GED programs.[26] They find that once demographic and economic neighborhood features are taken into account, suburban poor neighborhoods are much more likely to lack any of these antipoverty organizations. This is especially true for those organizations that promote upward mobility, like those that provide assistance with employment and education. The authors conclude that these findings suggest that with respect to access to social service organizations, low-income individuals may be better off in urban neighborhoods than suburban ones, since suburban living can isolate residents from organizational resources that could help them meet their daily needs and become more upwardly mobile.

Even in those suburban places where service organizations do exist, the lack of adequate public and private transportation options for many low-income households makes it difficult to access programs of support. Indeed, studies have found that physical proximity to social services is critical for their use and that the probability low-income households will make use of social services increases the closer that they are located to service providers.[27] Yet, suburban service organizations tend to serve much larger catchment areas than their urban counterparts, often serving entire counties or multi-county regions. Not only do larger service areas often correspond to greater spatial barriers to accessing services, they also spread organizational staff and resources thinly across many communities.

Though, with time, a stronger suburban safety net may develop and "catch up" to that found in urban poor neighborhoods, significant funding barriers exist. Many of the policy tools and interventions we use to combat poverty are directed at urban areas. Most poverty-related philanthropy is also directed towards urban poverty; studies show that the grant dollars per poor person are much lower in suburbs than central cities. Established nonprofits in urban areas often have longstanding relationships with these funders that give them a competitive edge and make it difficult for new, suburban organizations to break through. In addition, community foundations in the suburbs tend to be newer and smaller than those in central cities and thus have not been able to grow an asset base that can meet rising suburban need.[28]

The diversity of the suburban poverty challenge

Though much of our focus has been on how suburban poverty differs from urban poverty, it is important to recognize the differences that exist across suburbs experiencing rising poverty rates. Just as the suburbs are incredibly heterogeneous, so too are the challenges poverty poses to suburbs and the tools and resources suburbs have at their disposal to meet these challenges. To reflect such diversity, Murphy created a typology of poor suburban areas that weighed demographic realities, economic conditions, and local community resources.[29] Drawing on in-depth interviews with nonprofit service providers in eight suburbs outside of two Northeastern cities, she identifies three categories of suburbs experiencing rising poverty: (1) symbiotic suburbs, which most closely mirror poor urban neighborhoods; (2) skeletal suburbs, which were once thriving industrial locations but now offer few job opportunities; and (3) overshadowed suburbs, which are relatively affluent overall, but have deep pockets of poverty. The suburbs and social service organizations within these suburban types face distinct challenges and opportunities in their efforts to address the needs of their poor clients.

For example, symbiotic suburbs are suburbs whose most defining political, economic, and institutional relationship is

with the neighboring city. There is a significant movement of people, poverty-related problems, and resources across the urban-suburban boundary. This fluidity significantly shapes poverty dynamics in these suburbs. Organizations often find themselves straddling the divide between city and suburb in terms of who they provide services to, and how they appeal for support.

Skeletal suburbs, on the other hand, are physical and political skeletons of the vibrant manufacturing places they used to be. Because these suburbs are empty shells of their former selves, outside organizations and political actors work to fill these skeletons, perhaps using the few remaining resources for their own benefit. The severity of the economic and political deterioration in these places leaves little for stakeholders to build on, leading them to question whether these suburbs can ever be revitalized.

In contrast, overshadowed suburbs have small, segregated pockets of poverty. Zoning practices, commercial amenities, and a lack of public space keep poverty in these suburbs publicly hidden. So too does the fact that these suburbs are often home to newly poor, downwardly mobile middle class people who do not "look poor" and who may face different social service challenges than those who have experienced poverty longer. Because of this invisibility, many residents in these suburbs do not recognize the poverty that exists in their backyard. This presents a challenge for antipoverty organizations competing for resources with urban and other suburban locations where poverty is not hidden; their burden is to prove that poverty exists in their midst at all.

These categories are based on a small sample in one region in the United States and so are likely not comprehensive; other categories may exist. Nevertheless, they are useful in highlighting the variation in how poverty manifests in the suburbs and how such variation matters for the challenges experienced by residents and the local safety net—variation masked by the concept of "suburban poverty."

Conclusion: Research and policy implications

The changing geography of poverty in the United States has brought renewed scholarly and policy attention to the suburbs. This is much needed. American suburbs have long been in an academic and policy "blind spot."[30] The rise of suburban poverty brings with it new, unanswered questions about the relationship between poverty and place and the current and future role of policy in this relationship. There is much about suburban poverty we do not know. Because most poverty research has focused on cities, we are only beginning to understand the consequences and meaning of these spatial shifts in poverty across metropolitan America. Developing a sound research agenda around the subject will be of critical importance to the development of effective, evidence-based policies and programs aimed at suburban residents, neighborhoods, municipalities, and the regions in which they are situated.

Central to this research agenda is the development of more case studies of different types of suburbs in different regions in the United States. As we have shown, there is significant variation in how suburbs experience poverty as well as how they can and do respond. Case studies that illuminate how the spatial, social, economic, cultural, demographic, and political context of suburbs differently shapes the experiences of the suburban poor and the suburbs where they live will be useful for policymakers interested in, for example, crafting a regional approach to poverty in cities and their suburbs. Such approaches require urban-suburban collaboration. A significant impediment to these strategies is the fragmentation seen outside cities; there may be numerous municipalities with their own independent budgets, own structures of governance, and own methods of providing services. It can be very difficult to get these autonomous political jurisdictions to work together; collaboration is often viewed as a threat to local control. Case study research that examines how these municipalities are structured, governed, and how they understand poverty in their community would be useful in identifying ways to promote and encourage regional cooperation. Policy solutions that can seed and build capacity to collaborate across boundaries and jurisdictions will be key to any long-term success in addressing suburban poverty.

Case studies will also be essential in understanding the role that race, ethnicity, and immigrant status play in these dynamics. As noted above, the racial and ethnic distribution of the suburban poor is different than that of the urban poor. At the same time, the resources and opportunities available to low-income people of color in the suburbs differs from those available to low-income whites. This suggests that the patterns of racial inequality observed in cities seem to be replicating in the suburbs. We should be wary that the kinds of entrenched poverty that we see in many of our neglected urban areas run the risk of taking hold in the suburbs if left unchecked. To combat this, investigation into these racial differences and explicit acknowledgement of them in the policymaking process will be essential in developing tools to help all suburban poor people in the variety of places where they live.

Importantly, in crafting research and policy around suburban poverty, it is not sufficient to simply take existing theories and policies developed in urban areas to new settings. Though cities and suburbs share a number of features, as do their poverty populations, there are important differences. Strategies that may be effective in cities will not necessarily work in suburbs, due to differences in transportation, population densities, organizational capacities, and political will. Further, given the heterogeneity of suburbs, what works in one suburb may not be the best approach for another.

While there are many challenges ahead in the efforts to address suburban poverty, there is reason to believe communities and regions can make progress. First, suburbs have significant assets and resources that may allow them to respond vigorously to the difficulties at hand. We should expect there to be a lag in communities' ability to generate local and regional responses to rising poverty. But, over the

next 5 to 10 years, we may see suburban regions develop more local and shared institutional capacity to act. Second, even though public antipoverty program spending has leveled off in recent years, today's safety net contains a much more robust set of public assistance programs than when cities went through similar processes during the middle part of the 20th century. Unlike the urban poor in these earlier eras, the suburban poor have access to a variety of supports that may mediate the consequences of poverty. The key will be maintaining these public commitments, preventing retrenchment that would compromise the safety net's ability to respond to need, and finding ways to improve how programs are implemented.

Key to any success in addressing rising suburban poverty, however, will be recognizing that urban and suburban areas have a shared fate. The rise of suburban poverty has not coincided with a decline in urban poverty, quite the opposite. Just as labor markets have become more regional entities, where growth in urban and suburban areas is heavily linked, so too must our approaches to alleviating poverty. In the end, efforts that are limited to a particular segment of a metropolitan area—urban or suburban—are unlikely to yield much long-term impact at all.■

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[1]This article summarizes the May 2015 IRP Webinar given by Alexandra K. Murphy and Scott W. Allard.

[2]E. Kneebone and A. Berube, *Confronting Suburban Poverty in Americ*a (Washington, DC: Brookings Institution Press, 2013).

[3]E. Kneebone and N. Holmes, "The Growing Distance between People and Jobs in Metropolitan America," Metropolitan Opportunity Series No. 58, The Brookings Institution, 2014.

[4]S. W. Allard, "Places in Need: The Changing Geography of Poverty and the American Safety Net," Paper presented at the Poverty and Place Conference, Center for Poverty Research, University of California, Davis. November 13, 2014; E. Kneebone "The Growth and Spread of Concentrated Poverty, 2000 to 2008–2012," The Brookings Institution, Metropolitan Policy Program, 2014.

[5]See, for example, S. W. Allard and B. Roth, "Strained Suburbs: The Social Service Challenges of Rising Suburban Poverty," Metropolitan Opportunity Series No. 7, The Brookings Institution, Metropolitan Policy Program, 2010; Kneebone and Berube, *Confronting Suburban Poverty*; E. Kneebone and E. Garr. "The Suburbanization of Poverty: Trends in Metropolitan America, 2000 to 2008," The Brookings Institution, Metropolitan Policy Program, 2010; D. Andrulis, L. Duchon, and H. Reid, "Dynamics of Race, Culture, and Key Indicators of Health in the Nation's 100 Largest Cities and Their Suburbs," *The Social and Health Landscape of Urban and Suburban America Report Series*, Brooklyn: SUNY Downstate Medical Center, 2003; K. B. Anacker (Ed). *The New American Suburb: Poverty, Race, and the Economic Crisis* (Burlington, VT: Ashgate Publishing Company, 2015).

[6]United States Census Bureau, "Poverty Thresholds," accessed August 25, 2015 at https://www.census.gov/hhes/www/poverty/data/threshld/

[7]C. DeNavas-Walt and B. Proctor, US Census Bureau, Current Population Reports, P60-249, *Income and Poverty in the United States: 2013*, U.S. Government Printing Office, Washington DC, 2014.

[8]A. Murphy and D. Wallace. "Opportunities for Making Ends Meet and Upward Mobility," *Social Science Quarterly* 91, No. 5 (2010): 1164–1186.

[9]See Anacker, *The New American Suburb*.

[10]Kneebone and Berube, *Confronting Suburban Poverty*.

[11]E. Garr, "The Landscape of Recession: Unemployment and Safety Net Services across Urban and Suburban America," The Brookings Institution, Metropolitan Policy Program, 2011; Kneebone and Berube, *Confronting Suburban Poverty*.

[12]S. W. Allard and S. Paisner, *The Rise in Suburban Poverty*, Oxford Handbooks Online (New York: Oxford University Press, Forthcoming).

[13]A. Murphy, *When the Sidewalks End: Poverty in an American Suburb* (New York, NY: Oxford University Press Forthcoming); S. W. Allard, "Access to Social Services: The Changing Urban Geography of Poverty and Service Provision," Metropolitan Policy Program Survey Series, Washington, DC: The Brookings Institution, 2004.

[14]A. Ehrenhalt, *The Great Inversion and the Future of the American City* (New York, NY: Vintage Books, 2013).

[15]R. Suro, J. H. Wilson, and A. Singer, "Immigration and Poverty in America's Suburbs," Metropolitan Opportunity Series, Washington, DC: The Brookings Institution, 2011.

[16]See, for example, J. F. Madden, "Has the Concentration of Income and Poverty among Suburbs of Large U.S. Metropolitan Areas Changed over Time?" *Papers in Regional Science* 82 (2003): 249–275.

[17]Kneebone and Berube, *Confronting Suburban Poverty*.

[18]Kneebone and Berube, *Confronting Suburban Poverty*.

[19]P. Jargowsky, "Architecture of Segregation: Civil Unrest, the Concentration of Poverty, and Public Policy," The Century Foundation Issue Brief, 2015.

[20]P. Jargowsky, *Poverty and Place: Ghettos, Barrios, and the American City* (New York: Russell Sage Foundation, 1997).

[21]Kneebone, "The Growth and Spread of Concentrated Poverty."

[22]W. J. Wilson, *The Truly Disadvantaged* (Chicago, IL: University of Chicago Press, 1987); D. Massey and N. Denton, *American Apartheid* (Cambridge, MA: Harvard University Press, 1993).

[23]See A. Holliday and R. Dwyer, "Suburban Neighborhood Poverty in U.S. Metropolitan Areas in 2000," *City & Community* 8, No. 2 (2009): 155–176; A. Howell and J. Timberlake, "Racial and Ethnic Trends in the Suburbanization of Poverty in US Metropolitan Areas, 1980–2010," *Journal of Urban Affairs* 36, No. 1 (2013): 79–98; Kneebone and Berube, *Confronting Suburban Poverty*.

[24]S. W. Allard, *Out of Reach: Place, Poverty, and the New American Welfare State* (New Haven: Yale University Press, 2009); Allard, "Access to Social Services."

[25]Allard and Roth, "Strained Suburbs."

[26]Murphy and Wallace, "Opportunities for Making Ends Meet."

[27]S. W. Allard, R. Tolman, and D. Rosen, "Proximity to Service Providers and Service Utilization among Welfare Recipients," *Journal of Policy Analysis and Management* 22, No. 4 (2003): 599–613; R. J. Kissane, "What's Need Got to Do With It—Barriers to Use of Nonprofit Social Services," *Journal of Sociology and Social Welfare* 30 (2003): 127–148; J. E. Mosley, H. K. Anheier, Y. Hasenfeld, and H. Katz, "The Challenge of Meeting Social Needs in Los Angeles: Nonprofit Human Service Organizations in a Diverse Community," UCLA School of Public Policy and Social Research, 2003.

[28]S. Reckhow and M. Weir, "Building a Stronger Regional Safety Net: Philanthropy's Role," Metropolitan Opportunity Series. The Brookings Institution, Metropolitan Policy Program, 2011.

[29]A. Murphy, "The Symbolic Dilemmas of Suburban Poverty," *Sociological Forum* 25, No. 3 (2010): 541–569.

[30]R. Puentes and D. Warren, "One-Fifth of America: A Comprehensive Guide to America's First Suburbs," Survey Series, The Brookings Institution, Metropolitan Policy Program, 2006.

The Great Black Migration: Opportunity and competition in northern labor markets

Leah Platt Boustan

Leah Platt Boustan is Associate Professor of Economics at the University of California, Los Angeles.

Over 7 million African Americans left the South for industrial cities in the North between 1915 and 1970, a period often referred to as the "Great Black Migration."[1] For black migrants, the North held the promise both of better-paying job opportunities and of social and political equality. During this period, and particularly between 1940 and 1970 when the majority of black migration occurred, the earnings of black men grew faster than those of white men nationwide. In 1940, black men earned a mean of 40 cents to the dollar earned by white men; by 1970, the black-to-white ratio had increased to 70 cents to the dollar.[2] Although improvement in the quality and quantity of education for black students was the most important cause of the narrowing of this wage gap, migration to a higher-wage region also played a role.[3]

Even upon first arrival in northern cities, black migrants earned as much as blacks who were native to the North. Higher wages in the North represented a large economic gain for migrants; in 1940, for example, an average black worker in the North earned nearly three times as much as an average black worker in the South. Despite these gains, black migration to northern industrial cities did not create economic parity with whites for either the black migrants or their descendants. Although earnings for blacks relative to whites did rise at the national level, the black-white earnings ratio in the North remained about the same from 1940 to 1980, apart from a short-lived improvement in the late 1960s and early 1970s. This relative stagnation is generally explained by two forces on the demand side: a weakening of the American manufacturing sector after 1960, and racism in northern labor markets. In this article, I add a supply-side explanation to this story, detailing the labor market competition that new black migrants created for existing black residents in an economic setting already constrained by racism.[4]

The Great Black Migration

The Great Black Migration, which was one of the largest demographic events in U.S. history, began in earnest during World War I. Even though the North offered southern blacks higher wages and greater social equality prior to 1915, few blacks moved North before that year. Black migration slowed during the Great Depression, then skyrocketed in the 1940s during and following World War II; by 1970, for the first time the majority of black residents lived outside the South. The migration that occurred during and after World War I has received the most attention historically, but the period of migration from 1940 through 1970 was larger and thus had potentially greater labor market effects. I focus on this later migration here.

Benefits of migration to the migrants

Gunnar Myrdal, a Swedish economist and Nobel Prize winner, traveled through the American South in the 1920s and 1930s to study race relations. He published his findings in the influential volume *An American Dilemma* in 1944.[5] Myrdal predicted that migration to the North would bring about great improvement in black economic conditions. Forty years later, the economists James Smith and Finis Welch looked at what had transpired in the intervening decades, and concluded that migration from the South can account for approximately 20 percent of the national black-white earnings convergence between 1940 and 1980.[6] I look at this question in a different way, separately estimating the economic return of migration to the migrants themselves.

Before estimating the benefits of migration, it is important to consider who chose to leave the South. If only those with the highest skill levels chose to migrate, estimates of the benefits of migration to blacks as a whole could be overstated, while the reverse would be true if low-skilled men were overrepresented in the migrant pool. Because the expected gains from leaving the South were higher for men in the lower end of the income distribution, we might expect that men with lower skill levels would be more likely to migrate.

In prior research on migrant selection, the skill level of black migrants was measured using level of educational attainment, which was reported in the census beginning in 1940. This approach turns out to be problematic for two reasons. First, in the South, blacks often attended ungraded schools, which may have been hard for Census Bureau data collectors in the North to understand and categorize.[7] Second, how long to remain in school may be a decision made in conjunction with whether and when to migrate. For example, some prospective migrants may have decided to remain in school for an extra year as an investment in their future in the North. Also, some black migrants moved as children, and thus attended school in the North. In this case, a higher level of educational attainment would be an outcome of migration, rather than a factor in selection.

My estimates of migrant selection are instead based on the occupations of the fathers of migrants and nonmigrants in the 1920 Census.[8] Examples of high-skill occupations

include farm owners and white collar or skilled blue collar workers, while low-skill occupations include farm laborers. I find that blacks from *both* high- and low-skill backgrounds chose to migrate, while those from the middle of the skill distribution were much less likely to migrate.

Overall, I estimate that southern blacks increased their earnings by about 130 percent, on average, by moving to the North by 1940, an increase of about $5,400 annually per migrant. Southern whites could increase their earnings by 50 percent with the same move. Given that black migrants were selected from both ends of the skill spectrum, it is not clear that we would expect these simple estimates of the benefits of migration to be biased by migrant selection. To check for selection bias, I compare sets of brothers, one of whom moved to the North while the other remained in the South. Because brothers share a family background and some individual characteristics, this analysis will provide a reasonable estimate of what each migrant would have earned had he remained in the South. As it turns out, this analysis of brothers produces results that are very similar to those for the full population of migrants and nonmigrants, suggesting that selection does not greatly bias these estimates.

Labor market competition

Although southern migrants themselves clearly benefited by moving out of the low-wage South, existing black workers in the North lost out as new black workers arrived. Prior to 1965, northern black workers experienced little earnings growth, due partly to the competition from southern in-migrants. This competitive pressure on northern wages was concentrated among existing black workers in the North, as white and black workers were generally not competing for the same jobs. This segmentation of the northern labor market by race was based on two types of discrimination: racial disparities in the education and training necessary for many jobs, and racial disparities in hiring practices.

To estimate the effect of black migrant arrivals on the wages of existing black and white workers in the North, I begin by dividing working-age men into skill groups based on levels of education and work experience. For example, one skill group might be high school graduates with less than five years of labor market experience, while another might be high school graduates with 20 to 25 years of labor market experience. I then estimate the effect of migrant arrivals into a skill group on the wages of existing workers in that group. By doing so, I am able to determine how substitutable black and white workers are within each skill group, and find that blacks and whites with the same years of schooling and work experience were not used interchangeably in production in the North after World War II.

I am also interested in understanding how much of this labor market segmentation can be attributed to prior racial disparities in education versus current racism in hiring and promotion. To do so, I further refine my skill group measurements to reflect differences in school quality between northern and southern schools. In particular, I account for the shorter school years offered to black students in many southern states in the early- and mid-twentieth century. The results suggest that at least two-thirds of the imperfect substitutability by race in the North was driven by differences in the relative quality of black and white schools, rather than by racial discrimination in hiring of men with otherwise similar skill levels.[9] The remaining racial division suggests that blacks faced additional barriers in the northern labor market. While much of the existing historical literature focuses on discrimination in hiring practices, I find that both types of discrimination mattered and that racial disparities in education and training actually presented a much larger obstacle for black workers in the North. These results suggest that most northern employers were not using discriminatory hiring practices when assigning blacks to manual jobs in steel factories, tanneries, and packinghouses. Rather, the typical black worker—especially southern black migrants—attended systematically lower-quality schools and thus proved to be a less promising candidate for higher-skilled positions.

Although the results described here focus solely on male workers for data reasons, it is likely that black women in the northern labor force experienced a similar (or even greater) degree of competition from new migrant arrivals as did black men. Outside of the South, 44 percent of black women were in the labor force in 1940, with the majority working in domestic service. Over time, black women moved into factory work, and eventually into clerical positions. Given this clustering of black women in a limited set of occupations, the extent of competition with new arrivals may have been especially severe.

Net economic effects of migration

I find that black wage growth in the North would have been higher in the absence of in-migration from the South; average black earnings in the North would have been around 10 percent higher by 1970, while white earnings would have remained unchanged. If black workers had not migrated from the South, existing black workers may have benefited, but this would have come at some cost to the migrants themselves. Given an annual increase in earnings of $5,400 for black migrants as described above, I calculate the total increase in earnings due to migration for the 1.9 million black men who left the South after 1940 to be $10.2 billion a year (in 2010 dollars).

However, a loss of 10 percent of earnings for the 1.4 million existing black workers in the North due to competition with in-migrants is equivalent to an annual aggregate loss of $1.6 billion (mean earnings = $11,500). It is also likely that new migrants created competition for migrants that had arrived in the North earlier. Using the same 10 percent loss in earnings ($1,150 per migrant), competition among the 1.9 million southern black migrants would lower black earnings

in the North by another $2.2 billion a year, for a total loss of nearly $4 billion.

Overall, the gains for black workers attributable to migration from the South were about 2.5 times larger than the losses due to competition in the North. Black earnings nationally may have been further raised by higher wages for black workers remaining in the South, as migrant departures reduced competition in the southern labor market. The benefits of migration clearly outweigh the costs in terms of overall black economic advancement, but the costs experienced by competing workers in the North were considerable. Slow black economic progress in the North can be explained, in part, by the steady flow of southern black migrants, who competed with existing black workers in the North, keeping wages low. If not for this ongoing migration, northern blacks would likely have further closed the earnings gap with whites.

Relative growth in black earnings since 1970

The analyses described in this article have focused on the decades between 1940 and 1970, when 4 million black migrants left the South for industrial cities in the North. By the end of that period, black migration from the South had slowed considerably, and has since changed direction, with more northern-born blacks moving south since 1980 than the reverse.

Relative black earnings in the North did not increase after black migration from the South tapered off in the 1970s. In fact, from 1975 to 1990, blacks fell further behind whites in the North, erasing whatever small relative gains they had achieved since 1940. If the only change during this period had been the end of black migration from the South, we would have expected the easing of labor-market competition to result in the recovery of earnings lost due to that competition. However, the years since 1970 were characterized by severe declines in labor demand in manufacturing, particularly in the Midwest, as well as by a new wave of low-skilled immigrant workers from Latin America. The combination of these two factors is the most likely explanation for the continuation of poor black outcomes in the North.

It is unlikely that the growth in the black-white earnings gap between 1975 and 1990 was due to a rise in labor market discrimination in the North, since labor market discrimination appears to have declined during this period. However, enduring discrimination could help to explain why a racial earnings gap remains. Recent experimental studies suggest that otherwise identical black job seekers are less likely than white job seekers to receive callback interviews.[10]

Conclusions

In 1910, nearly 50 years after emancipation from slavery, 86 percent of African Americans still lived in the South. The advent of mass black migration to the North circa 1915 was precipitated by a period of particularly strong labor demand during World War I. Early black migrants from the South paved the way for later moves of friends and family, and black migration from the South accelerated rapidly, peaking in the 1940s and 1950s.

As of 1940, southern blacks could more than double their earnings by moving to the North. This estimate holds both in the full population and in comparisons between brothers. Although, in the early twentieth century, black earnings were substantially higher in the North than the South, subsequent black earnings growth was substantially slower in the northern region. I argue that the slower earnings growth in the North can, in part, be explained by labor market competition from southern black migrants. Southern in-migration doubled the size of the black workforce in the North from 1940 to 1970. Competition with southern blacks generated larger wage losses for existing black workers in the North than for similarly skilled whites.

Overall, the Great Black Migration benefitted southern migrants, while black workers in the North lost ground. The intense competition between existing black workers and new migrant arrivals occurred because black migrants were used more interchangeably in production with other black workers than with similarly skilled white workers in the North. The lack of substitutability between black and white workers can be attributed to actual differences in productivity—for example, due to racial disparities in school quality—as well as to discrimination in job assignments. The discriminatory hiring practices of some northern employers prevented some blacks from holding jobs for which they were qualified, especially in skilled crafts, retail and clerical work, and supervisory positions in manufacturing firms. However, educational disparities by race mattered as well; black students, particularly those in the segregated South, attended schools that were characterized by shorter school years and fewer resources per pupil. By the time southern blacks arrived in the North, they were already at a disadvantage.

Before the Great Black Migration to the North, nearly the entire black population in the United States lived in the South. In the 1940s, the South was the main site of racial injustice in the United States, and migration to the North represented one reliable way to ameliorate persistently low earnings in the black workforce. Today, racial disparities are instead widest in the Midwest, the region whose metropolitan areas were the hardest hit by the decline of American manufacturing and remain persistently segregated by race. Migration has again emerged as a response to scant opportunity, only this time northern-born blacks are heading South in large numbers, reversing the path that their parents or grandparents blazed in the last century.■

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[1]Throughout this article, the term "the North" is used to refer to all non-southern states, including those in the West.

[2]The analyses described in this article focus exclusively on male workers for two reasons. First, I place workers into skill group categories based partly on age. Because women's labor force participation is often interrupted for childbearing, age is not a reliable indicator of years of labor market experience for female workers. Second, parts of my analysis rely on matching data for individuals by first and last name. Because virtually all women changed their name upon marriage during my 1940–1970 time period, it is difficult to follow women from childhood to adulthood using Census data.

[3]J. P. Smith and F. Welch, "Black Economic Progress After Myrdal," *Journal of Economic Literature* 27, No. 2 (1989): 519–564; T. N. Maloney, "Wage Compression and Wage Inequality between Black and White Males in the United States, 1940–1960," *Journal of Economic History* 54, No. 2 (1994): 358–381.

[4]This article draws on L. P. Boustan, *Competition in the Promised Land: Black Migrants in Northern Cities and Labor Markets*, under contract with Princeton University Press. The book explores in more detail the themes of who gained and who lost as a result of black migration, and also offers evidence that white households left central cities in response to black in-migration, thereby contributing to the growth of the suburbs.

[5]G. Myrdal, *An American Dilemma: The Negro Problem and Modern Democracy* (New York: Harper & Row, 1944).

[6]Smith and Welch, "Black Economic Progress After Myrdal."

[7]R. A. Margo, "Race, Educational Attainment, and the 1940 Census," *Journal of Economic History* 46, No. 1 (1986): 189–198.

[8]This analysis uses a new matched sample that follows individuals over time from the 1920 to the 1940 Census, allowing migrants and nonmigrants to be observed in their childhood homes.

[9]This analysis uses only the length of the school term as an indicator of school quality. With a more comprehensive measure of school quality, it is possible that the portion of labor market segmentation by race attributable to differences in education and training would rise.

[10]M. Bertrand and S. Mullainathan, "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination," *American Economic Review* 94, No. 4 (2004): 991–1013; D. Pager, B. Western, and B. Bonikowski, "Discrimination in a Low-Wage Labor Market: A Field Experiment," *American Sociological Review* 74, No. 5 (2009): 777–799.

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Institute for Research on Poverty
University of Wisconsin–Madison
1180 Observatory Drive
3412 Social Science Building
Madison, Wisconsin 53706