Opportunity and Housing Access

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Abstract

This article examines the relationship between employment opportunity and housing affordability. Access to locations with high-productivity jobs is increasingly limited by regional housing affordability barriers. Recent articles demonstrate a new regional divergence in access to high-productivity regions accompanied by declines in worker mobility associated with affordability barriers. We update these findings and discuss their long-term implications for economic opportunity and intergenerational welfare. We show that areas, from which lower-income households are increasingly priced out, are also more likely to have higher levels of intergenerational mobility. Access to opportunity also continues to be challenged within metropolitan areas as the gentrification of downtown neighborhoods is accompanied by an increase in concentrated poverty in outlying city neighborhoods and inner ring suburbs. These trends on regional and local scales derive from the increased importance of place in the knowledge-based economy and interact to reinforce growing spatial inequality. We conclude with a discussion of the importance of identifying place-based solutions to counter growing spatial inequality of opportunity.

Introduction

For more than 100 years, in the United States, population has flowed from low-income to high-income states. This movement of people drawn to regions with better employment opportunities has led to a long-term convergence of regional per capita incomes. Evidence suggests, however, that this period of convergence has stopped in recent decades. Divergent opportunity across regions has replaced convergence. At the same time, regions with employment opportunities are

¹ This divergence is taking place in the context of an overall stagnation in income since 1999, with median income in 2015 still below 1999 levels (Porter et al., 2016). This wage stagnation has particularly affected lower-income and lower-skilled workers. The reasons for this stagnation and whether it might result in a secular stagnation are the object of debate, but investment in education, skill, and infrastructure have been identified as crucial to ensuring shared prosperity (Porter et al., 2016; Wachter and Ding, 2016).

also experiencing rapid house price and rent appreciation. Unlike in the past, when convergence was accompanied by an increase in the supply of housing in growing regions, house price increases now appear to be limiting the movement of workers to these areas of opportunity (Moretti, 2013) as overall mobility declined from an average of 19.7 percent between 1948 and 1980 to 11.6 percent in 2015 (U.S. Census Bureau, 2016).

New high-productivity jobs are concentrated in higher-housing-cost metropolitan areas with endogenous amenity growth that attracts higher-skilled workers, whereas lower-skilled workers are increasingly concentrated in lower-opportunity regions. This new trend of divergence *across* metropolitan areas has important implications for economic mobility and social inclusion for the United States going forward.

Similarly, divergence within metropolitan areas is also growing as a result of central city revitalization, which has taken place during the past two decades after widespread urban decline between the 1960s and 1980s. Cities with growing knowledge-based industries have experienced particularly strong residential demand growth, especially in central locations within these cities. Concurrently, central neighborhoods have experienced rapid relative population income growth and rapid gains in college-educated populations (Baum-Snow and Hartley, 2015).

The phenomenon of urban renewal is driven in part by younger, educated individuals' preferences for amenities that are associated with centrality (Couture and Handbury, 2015; Edlund, Machado, and Sviatschi, 2015). Revitalization and improved amenities attract young knowledge workers that then attract jobs. Thus, although economic growth in the central areas of cities has been accompanied by an improvement in amenities, the accompanying increase in housing cost has led to concerns about displacement of current residents. At the same time, outlying neighborhoods and inner-ring suburbs with less access to jobs and amenities, experience increases in poverty (Jargowsky, 2016; Kneebone, 2016).

Access to housing is not only about having a roof over one's head; it also affects one's access to opportunity, including education and networking, and to good jobs. Both diverging regional fortunes and urban revitalization are the result of the new importance of skill-based jobs and urban agglomerations that provide a base for the expanding knowledge-based economy. These trends raise the questions of whether lower-skilled, lower-wage households might lastingly be left out of access to opportunity as a result of increasing housing costs at the metropolitan level, as well as at the neighborhood level. At the beginning of the 21st century, the U.S. economy offers opportunities, but they are increasingly concentrated in cities and neighborhoods within cities that are not accessible to all. The dynamics we identify contribute to the rise in overall inequality that has been well identified in the literature (Keeley, 2015; Piketty, 2014).

The Divergence in Opportunity and Housing Costs section of this article reviews evidence on the growing spatial divergence of lower- and higher-skilled workers and employment growth and its relationship to housing affordability. The section Equality of Opportunity Across Regions discusses the consequences of these trends for social welfare by demonstrating that areas with high levels of intergenerational mobility have higher housing costs. The section What Can Be Done To Provide Access to High-Productivity, High-Growth Cities and Neighborhoods to All provides a policy framework to respond to these barriers to participation in an increasingly knowledge-based economy.

Divergence in Opportunity and Housing Costs

The historical income convergence across states and metropolitan areas that prevailed in the United States between 1880 and 1980 is no longer occurring. The net domestic migration of people from lower- to higher-income areas that drove this convergence has reversed.

Per-capita incomes among the states converged at an average rate of 1.8 percent per year between 1880 and 1980 (Ganong and Shoag, 2015). In the decades after World War II, the United States experienced a period of economic convergence, driven by internal migrations, during which populations flowed mostly from lower- to higher-income states. Before 1980, lower-income states experienced relatively slow population growth rates while the migration of skilled and unskilled workers resulted in faster population growth in higher-income regions. Greater population growth in these more-productive, higher-income regions eventually led to the slowing of wage growth in these regions, whereas lower-population-growth regions eventually experienced an increase in wage growth. As a result, income levels converged as regions became economically integrated.

In recent decades, the migration of less-skilled workers to high-productivity areas has declined. As a result, an increase in skill divergence has occurred. Berry and Glaeser (2005) found faster growth in skilled workers between 1970 and 2000 in metropolitan areas that already had a higher share of skilled workers.

The historical long-term convergence in regional income and skill levels that occurred through lower-skilled workers moving to more-productive states was enabled by relatively constant housing costs. Workers who moved could take advantage of higher-paying jobs without having to pay higher housing costs. Thus, the convergence was made possible because housing supply was elastic in the growing receiving regions. Individuals could move to more-productive regions and, in effect, expand their own opportunity.

In the housing market, long-term supply elasticity meant that moving was beneficial for both lowand high-wage workers. Shiller (2015) found that, for more than 100 years, real housing prices in the United States experienced cycles of growth and decline but remained largely constant in real terms overall. Housing as a share of overall household expenditure remained relatively constant between 1959 and 1980 at less than 20 percent (Albouy and Zabek, 2016).

Current labor market trends do not follow the historical patterns of convergence. Moretti (2012) showed how, in the current labor market, places that already have a high concentration of high-skilled workers have become even more productive in recent decades in a trend he calls the "great divergence." This divergence of the economic fortune of regions—with regions with more-skilled workers becoming increasingly productive relative to less-skilled areas—results from changes in the nature of innovation and skill-biased technology (Berry and Glaser, 2005; Moretti, 2004). Areas with a higher share of high-skilled worker experience greater increases in productivity as a result of "knowledge spillovers," or the physical proximity of educated workers results in the sharing of ideas, faster adoption of new technologies, and innovation (Diamond, 2016).

The importance of regional and local clusters of knowledge industries—of physical proximity and the value of knowledge spillover—has increased as technology has changed. For high-skilled

workers, the greater value of knowledge spillovers has increased the return to locating in areas with high concentrations of skilled workers. As a result, certain regions have grown and certain cities within these regions have revitalized, as new knowledge-based jobs are increasingly centrally located.

High-skilled workers are not alone, however, in benefiting from locating in areas with high concentrations of skilled workers; lower-skilled workers also benefit from locating in these areas in terms of wage increases (Diamond, 2016; Moretti, 2012). These benefits are particularly important in the context of stagnating wages for much of the income distribution during the past two decades and increasing income and wealth inequalities (Porter et al., 2016; Wachter and Ding, 2016) and concerns about the risk of an overall secular stagnation (Summers, 2014). However, lower-skilled workers are less able to take advantage of high-growth area job availability, because housing costs in these areas are also high; housing costs in these areas are bid up by higher-skilled workers who benefit more from productivity gains from agglomeration economies in the new knowledge-based centers (Diamond, 2016).

Why has housing supply elasticity decreased? Tightened land use regulations are implicated (Fischel, 1999). Ganong and Shoag (2015) estimated a tightening of land use regulations in high-skilled, high-productivity areas. Hsieh and Moretti (2015) examined metropolitan-area-level data between 1964 and 2009 and found that, although nearly one-half of national gross domestic product, or GDP, growth during that period could be attributed to the growth of cities in the South, highly productive cities grew less than expected; they hypothesized that this phenomenon could be attributed to a constrained housing supply.

Another factor may be the *location* of increased housing demand—specifically to the growing desirability of centrality. During the period of convergence, growth on the fringes and in new smaller urban centers elastically supplied housing. Now, job growth is occurring in the built-up centers of urban areas where housing supply is inherently less elastic (Cochrane et al., 2013).

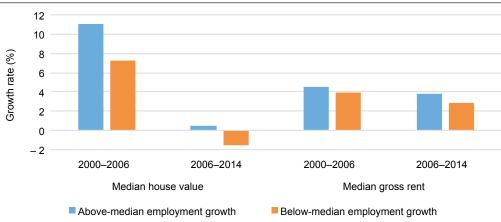
To document the continuing importance of increasing housing costs to limiting access to regions with job growth, we examine the relationship between changes in employment, education, and housing costs using decennial census data from 2000 and American Community Survey data for 2006 and 2014 at the metropolitan-area level (exhibit 1). Using these data, we examine whether the trends found in the 1990s and up to 2010 in the studies reviewed previously continued after the Great Recession. The results indicate that metropolitan areas that experienced above-median employment growth also experienced faster nominal rent and house price growth. That relationship existed during the housing boom, with house values increasing at 11.1 percent annually between 2000 and 2006 in metropolitan areas with above-median employment growth compared with 7.3 percent in metropolitan areas with below-median employment growth; similarly, rents increased by 4.5 percent in the former areas compared with 3.9 percent in the latter. This difference persisted through the Great Recession, and the recovery with house values increasing by 0.5 percent annually between 2006 and 2014 in areas with above-median employment growth and declining by 1.6 percent in areas with below-median employment growth. For rent, the growth rate is 3.8 percent compared with 2.9 percent.

When examining changes in population by level of education, areas with above-median employment growth between 2000 and 2014 disproportionally experienced increases in residents with bachelor's degrees (2.2 percent annually) relative to residents without bachelor's degrees (0.9 percent annually). The same pattern exists for areas with rent and housing costs above the median as of 2000.

Perhaps surprisingly, in both low-growth and high-growth regions, rents are increasing faster than income, as are housing prices (exhibit 2). Housing affordability is becoming a widespread issue with median house value and rent growing faster than median income in all census regions between 2000 and 2014 (JCHS, 2016). The difference is particularly pronounced in fast-growth regions (the

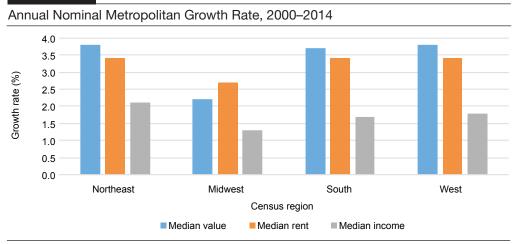
Exhibit 1





Sources: 2000 census; 2006 and 2014 American Community Survey

Exhibit 2



Sources: 2000 census; 2006 and 2014 American Community Survey

West and the South, as defined by the U.S. Census Bureau) but is also apparent in the Midwest, where housing values and, to a lesser extent, rent grew more slowly than in other regions but still substantially faster than income, the growth of which was also lower than in the other regions.

We also note the increasing rent and house price trends within metropolitan areas. Since the 1990s, many urban centers have become more attractive; this trend stands in contrast to the persistent declines in population and employment they experienced beginning in the 1950s, a period during which suburban areas were expending rapidly (Glaeser and Shapiro, 2003). Rents and particularly house prices in growing cities have accelerated (Voith and Wachter, 2009). Recent evidence shows that many urban centers have even been growing faster than their suburbs (Lee and Lin, 2015), with price and rent increases reflecting this growth.

Using decennial census data to study changes within five kilometers of central business districts for 118 large U.S. metropolitan areas since 1970, Baum-Snow and Hartley (2015) found that the population decline observed in the 1970s for these neighborhoods had largely slowed or reversed by the 2000s. They also found that these central neighborhoods have experienced an increase in both the number and share of White, college-educated residents, along with an increase in income. In addition, these demographic changes are more pronounced in metropolitan areas that have experienced more rapid growth, particularly in the 2000 to 2010 period, as discussed previously. Housing prices are driven up by the demand for housing in growing urban centers of growing metropolitan areas. Edlund, Machado, and Sviatschi, (2015) also documented a revival in urban centers characterized by a substantial premium for locations within 5 miles of the center in 2010 relative to places farther from the center; neighborhoods more than 10 miles away from city centers actually fell in value since 1980. They attributed this shift in the value of central locations to an increased preference for shorter commutes by college-educated workers. As a result, the price premium commanded by central city residential real estate has increased substantially.

Both rising rents and housing prices in high-growth regions and neighborhoods are a factor in decreasing mobility,³ in the growing share of young adults who remain in their parents' homes, and in the share of households who rent out of necessity rather than by choice (Acolin, Goodman, and Wachter, 2016).⁴ Housing affordability depends on two factors: prices and mortgage lending

² These findings are consistent with Couture and Handbury (2015), who found an increased demand for central neighborhoods that is largely limited to younger, higher-educated individuals due to increases in labor demand for skilled workers.

³ Other explanations for the decline in mobility focus on changes in the labor market that would lead to a convergence toward a spatial equilibrium. Kaplan and Schulhofer-Wohl (2012) argued that a decline in the geographic specificity of the return to an occupation and an improvement in access to information can explain most of the decline in interstate mobility. Molloy, Smith, and Wozniak (2014) documented a decline in the benefits to changing employers. These explanations do not explain why areas with higher-skilled workers have experienced higher economic growth, however (Berry and Glaeser, 2005; Moretti, 2013).

⁴ Overall mobility has been declining since the 1980s, from an average of 19.7 percent between 1948 and 1980 to 11.6 percent in 2015. When considering rates of interstate mobility, which is most likely to take place for reasons related to employment opportunity, one finds a secular decline that has accelerated in the second half of the 2000s. The average annual interstate migration rate was 2.8 percent for the 1981-to-2005 period; it was only 1.6 percent in the 2005-to-2015 period, a 42-percent decline. The decline has affected non-college graduates (from 2.6 to 1.5 percent on average), who historically already have a lower mobility rate, as much as college graduates (from 3.9 to 2.2 percent on average; U.S. Census Bureau, 2016). In parallel, the headship rate among individuals 15 to 34 years old has declined from 30.0 percent in 1990 to 24.7 percent in 2013 as many young individuals have delayed forming households or returned home during the recession (Lee and Painter, 2013).

conditions. In the post-World War II period of convergence in income, a nationwide rise in homeownership was made possible because, first, the supply of housing responded to new demand without housing prices (or rents) increasing faster than income and, second, the credit market made mortgages available and affordable to young households. For decades after World War II, both price and lending conditions were favorable, enabling high levels of migration and access to housing (Acolin et al., 2016; Acolin, Goodman, and Wachter, 2016). In recent decades, however, higher housing prices and tighter credit have contributed to a decline in homeownership rates; this trend is happening at a time when the hedge against rising rents that homeownership provides is particularly valuable (Sinai and Souleles, 2005). The shift toward tighter credit supply (Acolin et al., 2016) further limits lower-skilled and lower-income individuals' access to areas that combine high productivity, high levels of amenities, and high employment growth. Because the areas that are experiencing the fastest income and housing cost growth are also those with higher levels of intergenerational mobility, these trends are enormously important in terms of inclusive growth, as we show in the following section.

Equality of Opportunity Across Regions

A large and growing literature examines changes in inequality, particularly intergenerational mobility, and how intergenerational mobility varies across areas. Recent research identifies the extent to which different levels of opportunity are increasingly place-based. Chetty et al. (2014) used administrative income data for children (family income from 2011 to 2012 for children born between 1980 and 1982) and their parents (average family income from 1996 to 2000) to analyze intergenerational income mobility by metropolitan area based on mobility measures and finds substantial differences across areas.

The absolute mobility measure is based on the correlation between a child's rank in the income distribution (in percentile) and the parents' position. For example, the probability that a child born to parents with earnings in the bottom income quintile reaches the highest income quintile would be 20 percent with perfect mobility.⁵

The findings from Chetty et al. (2014) indicate that in Boston, Massachusetts; New York, New York; Salt Lake City, Utah; San Diego, San Jose, and San Francisco, California; Seattle, Washington; or Washington, D.C. children born in the lowest quintiles of the income distribution have more than a 10-percent chance of reaching the highest quintile. Children born in the lowest income quintile in Atlanta, Georgia; Charlotte, North Carolina; or Milwaukee, Wisconsin, among others, have less than a 5-percent chance of reaching the top income quintile.

Chetty et al. (2014) identified a number of factors associated with these differences in opportunity. Higher levels of racial and economic segregation are among the main variables correlated with lower levels of upward mobility. In addition, areas with good school outcomes—as measured by test scores and dropout rates—experience higher levels of upward mobility, whereas input-based measures of school quality—mean public school expenditures by student and mean class sizes—have small or

⁵ Chetty et al. (2014) argued that studying absolute measures is useful from a policy standpoint if the goal is to focus on improving the economic mobility of children born to low-income parents.

insignificant effects on the rate of upward mobility. The importance of school quality in favoring intergenerational mobility makes it important for policymakers to focus on delivering good quality education in order to improve access to opportunity for lower-income children.⁶

These findings—that places have different outcomes in terms of intergenerational mobility—have implications for the increasing divergence of the location of lower- and higher-educated workers. Using the data on upward mobility made public by Chetty et al. (2014), we estimate the relationships between levels of upward mobility and employment and housing costs growth at the metropolitan level during the 2000–to-2014 period. These estimates measure whether places with higher levels of intergenerational mobility are also those that experience more employment growth—but to which lower-skilled, lower-income workers are increasingly less likely to be moving because of higher housing costs.⁷ The correlation between an area's absolute level of upward mobility and employment change is 0.22; it is 0.48 for house price change and 0.39 for rent. These findings indicate that areas with a higher level of intergenerational mobility have experienced higher housing cost growth and moderately higher employment growth. Therefore, the divergence in the location choice of lower-skilled, lower-income workers has consequences not only on their earnings and welfare, but also on their children's social mobility. Improving the level of mobility by lower-income workers to higher-opportunity areas has the potential to substantially, positively affect not only these workers, but also their children.

As noted, the sorting of higher-skilled, higher-income workers into higher-productivity regions is accompanied by income sorting within metropolitan areas as well. Using census tract data, Jargowsky (2016) reported that the number of people living in neighborhoods with poverty rates of 40 percent or more increased by 72 percent between 2000 and 2010. The implications for intergenerational mobility of the work by Chetty et al. (2014) on regions are therefore mirrored by local poverty concentration within metropolitan areas.

The outcomes of Moving to Opportunity (MTO) for Fair Housing demonstration, a 1990s experiment funded by the U.S. Department of Housing and Urban Development (HUD), show the long-term consequences for children growing up in low-income neighborhoods. The MTO program offered housing vouchers to randomly selected volunteer families living in high-poverty public housing projects. The vouchers could be used to move to lower-poverty neighborhoods. Chetty, Hendren, and Katz (2016) analyzed the outcomes of these families' children relative to a control group that did not receive a voucher and found that, for children younger than age 13, having moved to a lower-poverty neighborhood when young had positive and substantial effects on college attendance and earnings and a negative effect on single parenthood. At ages 18 to 20,

⁶ Chetty et al. (2014) studied a number of other local characteristics associated with upward mobility and found a positive relationship with social capital (as measured by an index based on voter turnout rates, return rates of census forms, and measures of participation in community organizations or by the share of religious individuals), whereas crime rates are negatively correlated with mobility.

⁷ These simple correlations have no causal interpretation. They describe only whether areas that have been found to have higher level of economic mobility experienced higher employment and housing cost growth in the 2000-to-2014 period.

⁸ Moreover, Pinto (2015) showed that the analysis of the effect of the treatment on the treated (TOT), those who actually used the vouchers, is likely to underestimate neighborhood effects, because it does not account for the selection bias in the characteristics of the voucher users. Accounting for this selection bias, Pinto found substantially larger effects of neighborhoods on labor market outcomes, with an estimated effect of relocation on earning 65 percent higher than the TOT effect.

children who moved before age 13 had a 16 percent increase in college attendance relative to the control group (2.5 percentage points higher). In their mid-20s, the estimated income of children who moved before age 13 was 31 percent higher than for the control group. In addition, girls who moved before they were 13 experienced a 26-percent decline in the likelihood of becoming single mothers. The magnitude of these effects declines with the age at which the child moved, showing the importance of the duration of exposure to the better environment. The long-term improved outcomes of this quasi-experiment are consistent with the regional intergenerational findings discussed previously. Both point to the long-term consequences of limited access to place-based opportunity due to new housing affordability barriers to mobility.

What Can Be Done To Provide Access to High-Productivity, High-Growth Cities and Neighborhoods to All?

During recent decades, the United States has experienced the slowdown and reversal of a secular trend toward income convergence across regions. This divergence is taking place as overall income stagnates, particularly for lower-skilled workers, with median income in 2015 still below 1999 levels. The research reviewed here points to the new importance of regions as drivers of economic growth. The research shows how economic opportunity is linked to place both on a regional and a neighborhood scale.

President Barack Obama, in a speech to The U.S. Conference of Mayors, said, "we can work together to break down rules that stand in the way of building new housing and that keep families from moving to growing, dynamic cities" (White House, 2016: 4). State and local governments have a critical role to play in creating economic opportunity and an environment of to access opportunity. To promote shared prosperity, regions and localities will need to affirmatively address housing affordability and education challenges and engage in transformational initiatives through coalitions of local actors. Freeman and Schuetz (2017), Holzer (2017), and Steinberg and Quinn (2017) show in this symposium the challenges of doing so, as well as potential solutions.

Within metropolitan areas, a number of housing programs have addressed the persistence of low-income families living in neighborhoods with concentrated poverty, particularly minority low-income families and those with children. These programs aim to enable these families to move to neighborhoods with better educational and employment opportunities. One of the most-important programs is the Section 8 Housing Choice Voucher program that provided rent subsidies for 2.2 million low-income families in 2015 (Collinson and Ganong, 2016). The program typically limits the share of income paid by a family for housing to 30 percent; the government pays the difference on rents up to the 40th percentile of a metropolitan area.

Studying the location choices of families with children who receive a housing voucher, Ellen, Horn, and Schwartz (2016) found that housing voucher holders are more likely to move to areas with better schools as their children enter kindergarten and that they are particularly more likely to do so if a high share of affordable rental units are available near high-performing schools in their region. These findings suggest that housing vouchers have the potential to improve low-income families' access to better schools for their children if the vouchers enable them to afford units close to quality schools.

Currently, voucher levels are set at the metropolitan level, which can limit households' access to the most-desirable neighborhoods within a region. Collinson and Ganong (2016) examined the results of an experiment conducted in Dallas, Texas, that varies the maximum rent affordable with a voucher by ZIP Code rather than by metropolis. They find that, with these new ZIP Code-based ceilings, voucher recipients move to higher-quality neighborhoods (as defined by an index based on violent crime rate, test scores, poverty rate, unemployment rate, and the share of children living with single mothers). This finding suggests that addressing the affordability barriers that constrain low-income households' location choices can potentially improve their ability to locate in neighborhoods with better opportunity.

Another initiative, the Moving to Work demonstration created in 1996, provides public housing agencies (PHAs) more flexibility to design and test new strategies to increase choices for recipients of housing subsidies, with a particular focus on connecting them to employment (Galvez, 2016). The 39 participating PHAs are exempted from many of the rules associated with the implementation of housing programs and the use of federal funds to test new policy proposals. The experiments aim to identify and test the effectiveness of new ways to help voucher recipients access opportunities such as simplifying the information about the program, providing counseling, or prohibiting discrimination against voucher holders.

Other potential solutions include expanding the federal housing voucher programs to all eligible households (Desmond, 2016; Olsen, 2003), as well as changes to ensure that housing vouchers can be used to access housing in areas of opportunity such as the small area fair market rents (Collinson and Ganong, 2016). Other federal policies, such as the Low-Income Housing Tax Credit (LIHTC), continue to increase access to affordable housing in opportunity areas as well. Although the current level of funding for affordable housing at the federal level is insufficient to address existing needs, incentivizing local governments to find innovative ways to preserve and create new affordable housing units for various income segments in areas with employment opportunities and access to services is important.

Freeman and Schuetz (2017) present a number of initiatives that local governments have developed to provide housing in affordability-constrained areas to preserve and create affordable housing solutions. These programs include mandatory and incentivized inclusionary zoning, tax increment financing, and tax credit and abatement programs, as well as support for shared equity programs. Implemented at the local level, they aim to leverage and supplement federal housing programs (LIHTC, HOME Investment Partnerships Program, and Section 8 vouchers) that have seen their funding reduced over time. These strategies have the potential to preserve access to affordable housing at the metropolitan level, making it possible for lower-income households to move to regions experiencing both economic growth and higher housing costs.

The renewed effort by HUD to implement the Affirmatively Furthering Fair Housing mandate also has the potential to incentivize local communities to increase efforts to improve access to their housing market for a broader range of residents (Bostic and Acolin, forthcoming). In that context, The White House identified a number of barriers to the development of affordable housing and

⁹ Announced in 2016, expansion of the program to an additional 100 PHAs will provide new opportunities to test policy changes that can improve the mobility of voucher recipients.

actions that can contribute to increase access to opportunity by making housing supply more elastic. In a report (White House, 2016), The White House highlights initiatives taken by state and local governments such as increasing the predictability of approvals by establishing by-right development streamlining or shortening the permitting and approval process; eliminating or easing zoning requirements that increase development costs such as offstreet parking requirements, large minimum lot size, or limits on density and multifamily developments; providing incentives for developers with density bonuses, inclusionary zoning, or property tax abatement program; and mobilizing underused land by taxing vacant land or donating it to nonprofit developers. The administration has requested \$300 million in its 2017 budget to fund grants to support local governments in updating their zoning rules, and the Department of Transportation takes into account local housing regulatory environments and their ability to respond to demand from new transit projects as part of the funding process (White House, 2016).

The pervasiveness of the affordability challenges described in this article suggests that a strategic framework for addressing the new challenges of barriers to place-based opportunity will need to be multipronged, given the limits to federal programmatic expansion—local- and state-level initiatives and public-private partnerships will need to be adopted, as will public and private financing initiatives. This strategic framework will require providing new funding not only for expanded housing assistance, but also for bringing opportunity, through economic and community development, to places left behind. This development should include initiatives to promote job formation by state and regional actors (Rodríguez-Pose and Wilkie, 2017) to improve access to education (Steinberg and Quinn, 2017), and to provide skill training (Holzer, 2017). These initiatives pursue moreinclusive growth by acting on the labor markets and by finding ways to increase educational attainments for a broader range of children. Skill-building programs and primary education reforms have the potential to increase access to opportunity for all households, enabling individuals born in low-income families to experience upward economic and social mobility. However, as community and economic development increasingly brings opportunity to places left behind, attention to preserving and increasing affordable housing will be necessary.

Although many localities resist affordable housing (Freeman and Schuetz, 2017), others recognize the importance of workforce housing to their economies (Voith and Wachter, 2012). Those localities include some of the most affordability-challenged places (such as Park City, Utah) and cities that are on the brink of widespread increases in housing costs (such as Philadelphia, Pennsylvania). The preservation of affordable housing and investment for shared prosperity is both more important and newly possible in revitalizing cities.

Conclusion

The new knowledge economy is driving regional divergence in income levels. It is also driving urban centrality as knowledge agglomerations and place-based interactions in local centers increase in importance. The need for access to good jobs in central locations and in growing regions is driving the affordability challenge because housing supply inelasticity is higher where the jobs are. The higher value of land in central locations and the cost of redeveloping existing built-up areas result in higher housing costs. Regulation adds to the new supply inelasticity. As a consequence, access

to jobs and amenities in growing cities is now limited by the cost of entry presented by higher housing prices. This scenario implies that housing affordability and access to opportunity are now inextricably intertwined.

These shifting trends, with housing affordability becoming an issue in places with job growth and public amenities, such as access to good education, has important consequences for intergenerational mobility. The areas with higher income and housing cost growth in which fewer lower-skilled workers live are also those with higher levels of upward economic mobility for children born in lower-income families. The affordability-driven increase in divergence in location by skill and income level has major implications for social welfare and equity, as well as for future economic growth. Thus, a policy framework that both increases opportunity where affordable housing is available and increases access to opportunity will be a critical challenge going forward.

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References

Acolin, Arthur, Jesse Bricker, Paul Calem, and Susan Wachter. 2016. "Borrowing Constraints and Homeownership," *The American Economic Review: Papers and Proceedings* 106 (5): 625–629.

Acolin, Arthur, Laurie S. Goodman, and Susan M. Wachter. 2016. "A Renter or Homeowner Nation?" *Cityscape* 18 (1): 145–157.

Albouy, David, and Mike Zabek. 2016. Housing Inequality. NBER Working Paper No. 21916. Cambridge, MA: National Bureau of Economic Research.

Baum-Snow, Nathaniel, and Daniel Hartley. 2015. Gentrification and Changes in the Spatial Structure of Labor Demand. Unpublished paper.

Berry, Christopher R., and Edward L. Glaeser. 2005. "The Divergence of Human Capital Levels Across Cities," *Papers in Regional Science* 84 (3): 407–444.

Bostic, Raphael, and Arthur Acolin. Forthcoming. "Affirmatively Furthering Fair Housing: The Mandate To End Segregation." In *The Fight for Fair Housing*, edited by Greg Squires. New York: Routledge Taylor & Francis Group.

Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence From the Moving to Opportunity Experiment," The American Economic Review 106 (4): 855–902.

Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. 2014. "Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," *The Quarterly Journal of Economics* 129 (4): 1553–1623.

Cochrane, Steven, Sophia Koropeckyj, Aaron Smith, and Sean Ellis. 2013. "Central Cities and Metropolitan Areas: Manufacturing and Non-Manufacturing Employment as Drivers of Growth." In *Revitalizing American Cities*, edited by Susan M. Wachter and Kimberly A. Zeuli. Philadelphia: University of Pennsylvania Press: 65–80.

Collinson, Robert, and Peter Ganong. 2016. Incidence and Price Discrimination: Evidence From Housing Vouchers. Working paper. Cambridge, MA: Joint Center for Housing Studies of Harvard University.

Couture, Victor, and Jessie Handbury. 2015. Urban Revival in America, 2000 to 2010. Unpublished paper.

Desmond, Matthew. 2016. Evicted: Poverty and Profit in the American City. New York: Crown Publishers.

Diamond, Rebecca. 2016. "The Determinants and Welfare Implications of US Workers' Diverging Location Choices by Skill: 1980–2000," *The American Economic Review* 106 (3): 479–524.

Edlund, Lena, Cecilia Machado, and Maria Micaela Sviatschi. 2015. Bright Minds, Big Rent: Gentrification and the Rising Returns to Skill. NBER Working Paper No. 21729. Cambridge, MA: National Bureau of Economic Research.

Ellen, Ingrid Gould, Keren Mertens Horn, and Amy Ellen Schwartz. 2016. "Why Don't Housing Choice Voucher Recipients Live Near Better Schools? Insights From Big Data," *Journal of Policy Analysis and Management* 35 (4): 884–905.

Fischel, William A. 1999. "Zoning and Land Use Regulation," *Encyclopedia of Law and Economics* 2: 403–442.

Freeman, Lance, and Jenny Schuetz. 2017. "Producing Affordable Housing in Rising Markets: What Works?" Cityscape 19 (1): 217–236.

Galvez, Martha M. 2016. "Can Behavioral Science Help Voucher Families Reach Better Neighborhoods?" http://www.urban.org/urban-wire/can-behavioral-science-help-voucher-families-reach-better-neighborhoods.

Ganong, Peter, and Daniel Shoag. 2015. "Why Has Regional Income Convergence in the U.S. Declined?" http://scholar.harvard.edu/files/shoag/files/why_has_regional_income_convergence_in_the_us_declined_01.pdf.

Glaeser, Edward L., and Jesse M. Shapiro. 2003. "Urban Growth in the 1990s: Is City Living Back?" *Journal of Regional Science* 43 (1): 139–165.

Holzer, Harry J. 2017. "The Role of Skills and Jobs in Transforming Communities," *Cityscape* 19 (1): 171–190.

Hsieh, Chang-Tai, and Enrico Moretti. 2015. Why Do Cities Matter? Local Growth and Aggregate Growth. NBER Working Paper No. 21154. Cambridge, MA: National Bureau of Economic Research.

Jargowsky, Paul A. 2016. "Neighborhoods and Segregation." In *Shared Prosperity in America's Communities*, edited by Lei Ding and Susan Wachter. Philadelphia: University of Pennsylvania Press: 20–40.

Joint Center for Housing Studies of Harvard University (JCHS). 2016. "The State of the Nation's Housing." http://www.jchs.harvard.edu/research/state_nations_housing.

Kaplan, Greg, and Sam Schulhofer-Wohl. 2012. Understanding the Long-Run Decline in Interstate Migration. NBER Working Paper No. 18507. Cambridge, MA: National Bureau of Economic Research.

Keeley, Brian. 2015. *Income Inequality: The Gap Between Rich and Poor*. Paris, France: OECD Publishing.

Kneebone, Elizabeth. 2016. "The Changing Geography of Disadvantage." In *Shared Prosperity in America's Communities*, edited by Lei Ding and Susan Wachter. Philadelphia: University of Pennsylvania Press: 41–56.

Lee, Kwan Ok, and Gary Painter. 2013. "What Happens to Household Formation in a Recession?" *Journal of Urban Economics* 76: 93–109.

Lee, Sanghoon, and Jeffrey Lin. 2015. Natural Amenities, Neighborhood Dynamics, and Persistence in the Spatial Distribution of Income. Working paper 15-46. Philadelphia: Federal Reserve Bank of Philadelphia.

Molloy, Raven, Christopher L. Smith, and Abigail K. Wozniak. 2014. Declining Migration Within the U.S.: The Role of the Labor Market. NBER Working Paper No. 20065. Cambridge, MA: National Bureau of Economic Research.

Moretti, Enrico. 2013. "Real Wage Inequality," *American Economic Journal: Applied Economics* 5 (1): 65–103.

———. 2012. The New Geography of Jobs. New York: Houghton Mifflin Harcourt.

——. 2004. "Estimating the Social Return to Higher Education," *Journal of Econometrics* 121 (1): 175–212.

Olsen, Edgar O. 2003. "Housing Programs for Low-Income Households." In *Means-Tested Transfer Programs in the United States*, edited by Robert A. Moffitt. Chicago: The University of Chicago Press: 365–442.

Piketty, Thomas. 2014. *Capital in the Twenty-First Century*. Cambridge, MA, and London, United Kingdom: The Belknap Press of Harvard University Press.

Pinto, Rodrigo. 2015. Selection Bias in a Controlled Experiment: The Case of Moving to Opportunity. Working paper. Chicago: University of Chicago, Department of Economics.

Porter, Michael E., Jan W. Rivkin, Mihir A. Desai, and Manjari Raman. 2016. "Problems Unsolved and a Nation Divided." http://www.hbs.edu/competitiveness/Documents/problems-unsolved-and-a-nation-divided.pdf.

Rodríguez-Pose, Andrés, and Callum Wilkie. 2017. "Revamping Local and Regional Development Through Place-Based Strategies," *Cityscape* 19 (1): 151–170.

Shiller, Robert J. 2015. Irrational Exuberance. Princeton, NJ: Princeton University Press.

Sinai, Todd, and Nicholas S. Souleles. 2005. "Owner-Occupied Housing as a Hedge Against Rent Risk," *The Quarterly Journal of Economics* 120 (2): 769–789.

Steinberg, Matthew P., and Rand Quinn. 2017. "Education Reform in the Post-NCLB Era: Lessons Learned for Transforming Urban Public Education," *Cityscape* 19 (1): 191–216.

Summers, Laurence H. 2014. "Reflections on the New 'Secular Stagnation Hypothesis'." In *Secular Stagnation: Facts, Causes and Cures*, edited by Coen Teulings and Richard Baldwin. London, United Kingdom: CEPR Press: 27–40.

U.S. Census Bureau. 2016. "CPS Historical Migration/Geographic Mobility Tables." https://www.census.gov/data/tables/time-series/demo/geographic-mobility/historic.html.

Voith, Richard, and Susan M. Wachter. 2012. "The Affordability Challenge: Inclusionary Housing and Community Land Trusts in a Federal System." In *Value Capture and Land Policies*, edited by Gregory K. Ingram and Yu-Hung Hong. Cambridge, MA: Lincoln Institute of Land Policy: 261–281.

Voith, Richard P., and Susan M. Wachter. 2009. "Urban Growth and Housing Affordability: The Conflict," The Annals of the American Academy of Political and Social Science 626 (1): 112–131.

Wachter, Susan M., and Lei Ding, eds. 2016. *Shared Prosperity in America's Communities*. Philadelphia: University of Pennsylvania Press.

White House, The. 2016. "Housing Development Toolkit." https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Housing_Development_Toolkit%20f.2.pdf.

