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Opportunity and Housing Access

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Introduction

For over 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.¹ At the same time, regions with employment opportunities are 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 2016).

New high-productivity jobs are concentrated in higher-housing-cost metropolitan areas with endogenous amenity growth that attracts higher-skill workers, while lower-skill 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 over the last two decades following 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 (Edlund et al., 2015; Couture and Handbury, 2015). Revitalization and improved amenities attract young knowledge workers which then attract jobs. Thus, while 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 (Kneebone, 2016; Jargowsky, 2016).

Access to housing is not only about having a roof over one's head; it also impacts one's access to opportunity, including education and networking opportunities, 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-skill, 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 is offering opportunities but these are increasingly concentrated in cities and neighborhoods within cities that are not accessible to all.

Section I of this paper reviews evidence on the growing spatial divergence of lower- and higher- skill workers and employment growth and its relationship to housing affordability. Section II discusses the consequences of these trends for social welfare by demonstrating that the areas with high levels of intergenerational mobility have higher housing costs. Section III provides a policy framework to respond to these barriers to participation in an increasingly knowledge-based economy.

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 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 and skill along with infrastructure have been identified as crucial to ensuring shared prosperity (Porter et al., 2016; Wachter and Ding, 2016)

I. 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 low-income to higher-income areas that drove this convergence has reversed.

Per-capita incomes across U.S. states converged at an average rate of 1.8 percent per year between 1880 and 1980 (Ganong and Shoag 2015). In the decades following World War II, the United States experienced a period of convergence during which populations flowed mostly from lower-income to higher-income states. Before 1980, lower-income states experienced relatively slow population growth rates while the migration of skilled and unskilled workers to higher-income regions resulted in faster population growth. Greater population growth in these more productive, higher-income regions eventually led to the slowing of wage growth in these regions, while 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. Between 1970 and 2000, Berry and Glaeser (2005) found faster growth in skilled workers 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-skill 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 low- and high-wageworkers. Shiller (2005) finds that, for over 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 under 20 percent (Albouy and Zabek, 2016).

Current labor market trends do not follow the historical patterns of convergence. Moretti (2012) shows how, in the current labor market, places that already have a high concentration of high-skill 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 (Glaser and Berry, 2005; Moretti, 2004). Areas with a higher share of high-skill worker experience greater increases in productivity as a result of “knowledge spillovers:” 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-skill-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.

But it is not just high-skill workers who benefit from locating in areas with high concentrations of skilled workers: lower-skill workers also benefit from locating in these areas in terms of wage increases (Moretti 2012; Diamond 2016). 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

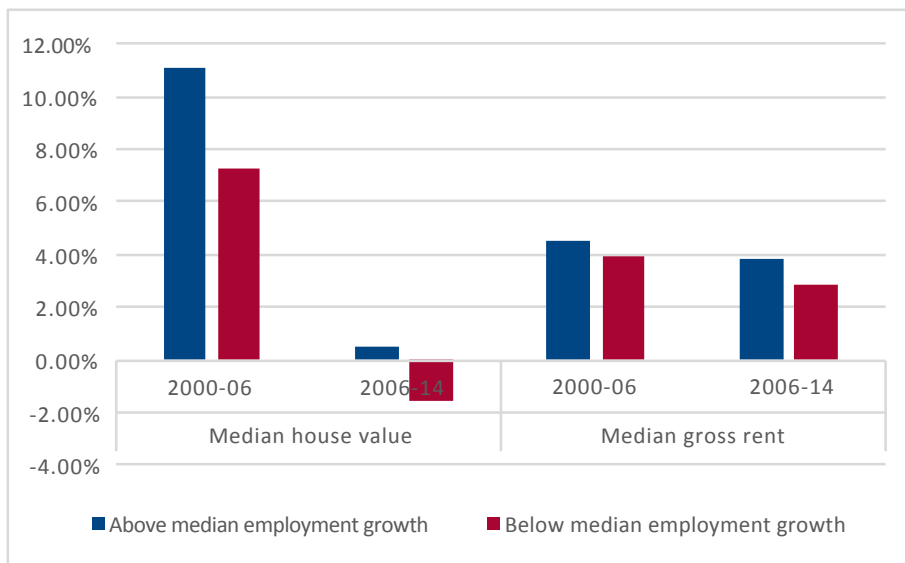
knowledge-based centers (Diamond 2016).

Why has housing supply elasticity decreased? Tightened land-use regulations are implicated (Fischel 1999). Ganong and Shoag (2015) estimate a tightening of land-use regulations in high-skill, high-productivity areas. Hsieh and Moretti (2015) looked at metropolitan-area-level data between 1964 and 2009 and found that, while almost half of national 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 phenomena can 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 regions 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 (Fig. 1). Using this data, we look at whether the trends found in the 1990s and up to 2010 in the studies reviewed above continued following 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 value increasing at 11.1 percent annually between 2000 and 2006 in metropolitan areas with above-median employment growth compared to 7.3 percent in metropolitan areas with below-median employment growth; similarly, rents increased by 4.5 percent in the former areas compared to 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 to 2.9 percent.

Figure 1: Annual Nominal Rent and House Value Growth Rate by Employment Growth Rate, 2000-2006 and 2006-2014



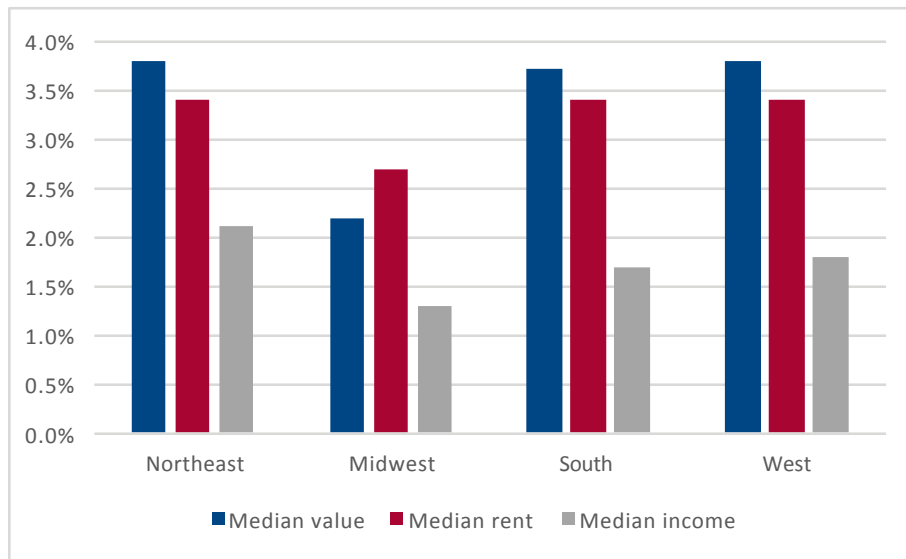
Source: Decennial Census 2000, American Community Survey 2006 and 2014.

When examining changes in population by level of education, areas with above-median employment growth between 2000 and 2014 disproportionately experienced increases in residents with a bachelor's degree (2.2

percent annually) relative to residents without a bachelor's degree (0.9 percent annually). The same pattern is found 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. 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 West and the South) but also in the Midwest where housing values and, to a lesser extent, rent grew more slowly than in other regions but still substantially above regional income growth, which was also lower than in the other regions.

Figure 2: Annual nominal metropolitan growth rate, 2000-2014



Source: Decennial Census 2000, American Community Survey 2006 and 2014.

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 expanding 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 and looking at changes within 5 km of central business districts for 118 large U.S. metropolitan areas since 1970, Baum-Snow and Hartley (2015) find that the population decline observed in the 1970s for these neighborhoods had largely slowed or reversed by the 2000s. They also find 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 above. Housing prices are driven up by the demand for housing in growing urban centers of metropolitan areas that are themselves growing.² Edlund et al. (2015) also document a revival in urban centers characterized by a substantial premium for locations within five miles of the center in 2010 relative to places farther from the center; neighborhoods more than ten miles away from city centers actually fell in value since 1980. They attribute this shift in the value of central locations to an increased preference for shorter commutes

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

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 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 following World War II both price and lending conditions were favorable, enabling high levels of migration and access to housing (Acolin, Goodman, and Wachter 2016; Acolin et al., 2016). In recent decades, however, higher housing prices and tighter credit contribute to a decline in homeownership rates; this 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-skill 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.

II. Equality of opportunity across regions

There is a large and growing literature on changes in inequality, particularly intergenerational mobility, and how this varies across areas. Recent research identifies the extent to which different levels of opportunity are increasingly place-based. Chetty et al. (2014) uses administrative income data for children (family income from 2011-2012 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 her 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, while in Salt Lake City, San Jose, Boston, San Francisco, San Diego, New York, Washington, or Seattle, 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 Charlotte, Atlanta, or Milwaukee, among others, have less than a 5 percent chance of reaching the top income quintile.

3 Other explanations to the decline in mobility focus on changes in the labor market that would lead to a convergence towards a spatial equilibrium. Kaplan and Schulhofer-Wohl (2012) argue 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) document a decline in the benefits to changing employers. These explanations do not explain why areas with higher-skilled workers have experienced higher economic growth, though (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 looking at interstate mobility rates, which are the most likely to take place for reasons related to employment opportunity, there has been a secular decline that has accelerated in the second half of the 2000s. The average annual interstate migration rate for the 1981 to 2005 period was 2.8 percent; it was only 1.6 percent in the 2005-2015 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 graduate (from 3.9 to 2.2 percent on average) (U.S. Census, 2015). In parallel, the headship rate among individuals 15-34 years old has declined from 30.0 percent in 1990 to 24.7 percent in 2013 as many young individuals have delayed forming a household or returned home during the recession (Lee and Painter 2013).

5 Chetty et al. (2014) argue that looking at 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.

A number of factors have been identified by Chetty et al. (2014) as associated with these differences in opportunity. Among the main variables found to be correlated with lower levels of upward mobility are higher levels of racial and economic segregation. In addition, areas with good school outcomes as measured by test scores and dropout rates experience higher levels of upward mobility, while input-based measures of school quality (mean public school expenditures by student and mean class sizes) are small or insignificant. 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 over the 2000 to 2014 period. These estimates measure whether the places that have higher levels of intergenerational mobility are also those that are experiencing more employment growth but to which lower-skill, lower-income workers are increasingly less likely to be living 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 the areas with a higher level of intergenerational mobility have experienced higher housing costs growth and moderately higher employment growth. This means that the divergence in the location choice of lower-skill, 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 to these areas by lower-income workers has the potential to substantially, positively impact not only these workers but also their children.

As noted, the sorting of higher-skill, higher-income workers into higher-productivity regions is accompanied by income sorting within metropolitan areas as well. Using census tract data, Jargowsky (2016) reports 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 long-term consequences for children growing up in low-income neighborhoods is shown in the outcomes of Moving to Opportunity (MTO), a 1990's experiment funded by the Department of Housing and Urban Development. 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.⁸ Chetty, Hendren, and Katz (2016) analyze the outcomes of these families' children relative to a control group that did not receive a voucher and find that, for children under 13, having moved to a lower-poverty neighborhood when young had positive and substantial impact on college attendance and earnings and a negative effect on single parenthood. At age 18 to 20, children who moved before age 13 have a 16 percent increase in college attendance relative to the control group (2.5 percentage points higher). In their mid-twenties, the estimated income of children who moved before age 13 is 31 percent higher than for the control group. In addition, girls who moved before they were 13 experience a 26 percent decline in the likelihood to become single mothers. The magnitude of these effects declines with the age at which the child moved, showing the importance of the duration of the exposure to the better environment. The long-term improved outcomes of this quasi-experiment are consistent with the regional intergenerational findings discussed above.

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

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

8 Moreover, Pinto (2015) shows that the analysis of the effect of the Treatment on 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 he finds substantially larger effects of neighborhoods on labor market outcomes with an estimated effect of relocation on earning 65 percent higher than the TOT effect.

Both point to the long-term consequences of limited access to place-based opportunity due to new housing affordability barriers to mobility.

III. What can be done to provide access to high-productivity/high-growth cities and neighborhoods to all?

Over the last decades, the United States has experienced the slow down and reversal of a secular trend towards 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.

State and local governments have a critical role to play in creating economic opportunity and an environment of to access opportunity. In order 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. The challenges of doing so, as well as potential solutions, are shown by Freeman and Schuetz (2016), Holzer (2016) and Steinberg and Quinn (2016).

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 provides 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.

Looking at the location choices of families with children who receive a housing voucher, Ellen, Horn, and Schwartz (2016) find 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 there is a high share of affordable rental units 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, vouchers levels are set at the metropolitan level, which can limit households' access to the most desirable neighborhoods within a region. Collinson and Ganong (2016) examine the results of an experiment conducted in Dallas 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 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.

Other potential solutions include expanding the federal housing voucher programs to all eligible households (Olsen 2003; Desmond 2016) as well as changes to ensure that housing vouchers can be used to access housing in areas of opportunity such as the small area FMR (Collinson and Ganong 2013). Other federal policies, such as the Low Income Housing Tax Credit (LIHTC), continue to increase access to affordable housing in opportunity areas as well. Though 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 (2016) 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 (TIF), 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, 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 pervasiveness of the affordability challenges described in this paper suggests that a strategic framework for addressing the new challenges of barriers to place-based opportunity will need to be multi-pronged, given the limits to federal programmatic expansion—local, private and public partnerships, and state level initiatives will need to be adopted as well as public/private financing initiatives. This strategic framework will require not only providing new funding for expanded housing assistance but also for bringing opportunity, through economic and community development, to places left behind. This should include initiatives to promote job formation by state and regional actors (Rodriguez-Pose, 2016), to improve access to education (Quinn and Steinberg, 2016), and to provide skill training (Holzer 2016). These initiatives pursue more inclusive 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.

While many localities resist affordable housing (Freeman and Schuetz, 2016), others are recognizing the importance of workforce housing to their economies (Voith and Wachter, 2012). This includes 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). The preservation of affordable housing and investment for shared prosperity is both more important and newly possible in revitalizing cities.

V. 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 since 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.

This shift in 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-skill workers are living are also those with a higher level of upward economic mobility for children born in lower-income families. The affordability-driven increasing 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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