

Restoring Economic Opportunity for “The People Left Behind”: Employment Strategies for Rural America

AUTHOR

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ABSTRACT

Based on several leading economic indicators, most notably rates of employment in the labor force among less skilled men, residents of rural America are much further behind their urban counterparts today than they were fifty years ago. In order to stimulate employment in rural areas, I propose a two-fold strategy of bringing “people to jobs” and “jobs to people,” an approach that combines people-based and place-based policies. The people-based policies include relocation assistance payments for those willing to make a permanent move to a new job, as well as a short-term credit for commuting expenses tied to a new job without residential relocation. The place-based programs include a major one-time investment in rural broadband, a recurring program of loans and grants to enhance entrepreneurship and small business development, and a federal jobs program to revitalize rural infrastructure and amenities.

1. Introduction

Fifty years ago, spurred on in part by Harry Caudill’s (1963) dark portrait of poverty in Appalachia, President Lyndon B. Johnson’s National Advisory Commission on Rural Poverty issued a report entitled *The People Left Behind*. The report detailed the myriad challenges facing rural Americans, including unemployment and underemployment, poverty and hunger, and poor health (Breathitt, 1967). The Commission made several recommendations for immediate action, ranging from a government promise of full employment for all willing and able adults—including public service jobs in areas where private market demand is inadequate—to the establishment of the right to a guaranteed minimum income.

This vision of shared prosperity with the wider U.S. economy has not been realized. In fact, on some metrics, rural people are further behind their urban counterparts today than they were five decades ago, as eloquently expressed in J.D. Vance’s (2016) *Hillbilly Elegy*. The most jarring manifestation of this economic dislocation was the 2016 presidential election, in which a supermajority of rural people voted for Donald Trump and his platform of economic nationalism.

The aim of this brief is to assess where rural America stands on some key economic indicators five decades after the release of *The People Left Behind*, and to recommend policies that would enable rural America to better share in our nation’s great prosperity.

For most individuals, employment—full-time employment in particular—is necessary to avoid living in poverty. However, with the redirection of the U.S. safety net toward work beginning with the 1996 welfare reform, employment has become necessary to avoid absolute destitution (Edin & Shaefer, 2015). Eligibility for welfare, food stamps, and refundable tax credits is conditional upon work for some or all participants, and these work requirements are now spreading to other programs, such as Medicaid.

Alas, as I show below, only one-in-two low-skilled men in rural America worked for pay in 2016, a rate which is 15 percentage points lower than their counterparts in urban America. Fifty years ago, both groups had similar employment rates of nearly 95%. While the rural-urban gap among women is less pronounced, the rate of decline in employment among less skilled rural women has been faster over the past two decades, in comparison to less skilled urban women, such that just over three-in-ten were employed at any point in 2016.

To begin to reverse these trends, I propose a two-fold strategy of bringing “people to jobs” and “jobs to people.” The agenda of bringing people to jobs is aimed at those rural residents who are geographically mobile. One proposal is to provide relocation assistance—both moving costs and a temporary living stipend—for those willing and able to permanently move to work at a new location. The other is to provide a temporary credit to compensate for commuting costs, which will be a progressive function of distance from the place of work.

The agenda of bringing jobs to people is targeted to those unable or unwilling to relocate, or too distant from employment centers to benefit from the commuting credit. Proposals here include: a large one-time investment in rural broadband infrastructure; an on-going program of expanded access to financial capital for entrepreneurs and other small business development initiatives in rural areas; and a program of public sector jobs of last resort to rejuvenate rural infrastructure.

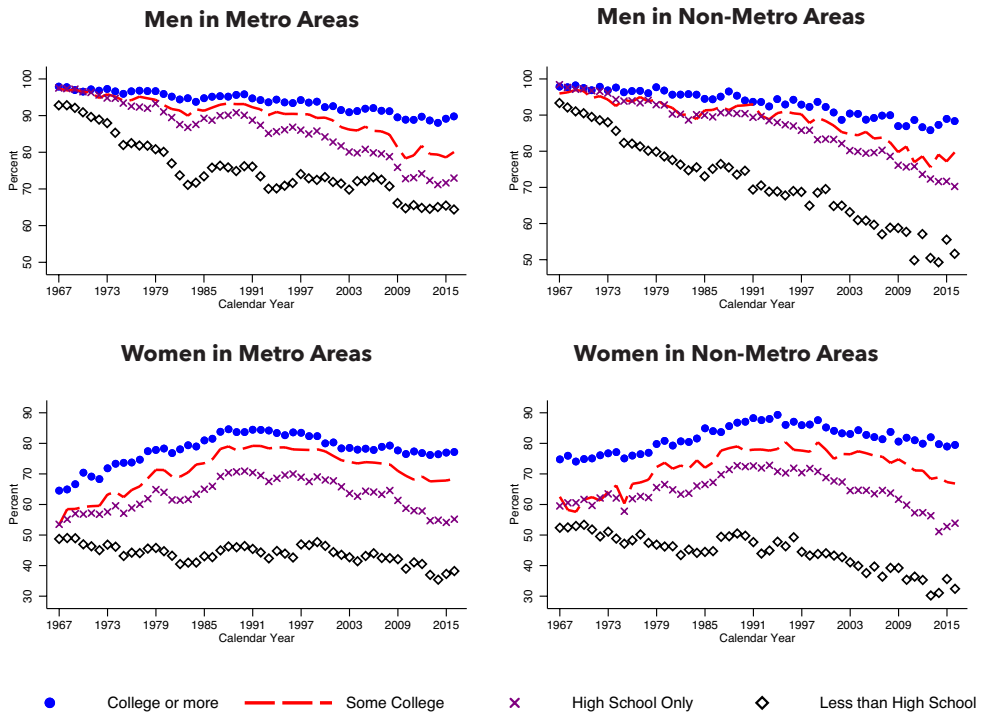
Each set of proposals falls into the class of interventions known as active labor market policies, and are targeted to the current generation of displaced adults. To address more systemic long-term rural poverty will require a renewed commitment to children in the form of substantial investments in education and human capital development more generally.

2. The Context: Five Decades of Economic Change

Major secular changes in the geographic location and technology of production, coupled with deep and protracted business cycles ranging from the oil price shocks of the 1970s to the Great Recession in the late 2000s, have resulted in vast changes in the U.S. economic landscape. One profound development has been the retreat from employment, especially among less skilled men (Eberstadt, 2016). Figure 1 presents trends in the share of 25- to 64-year-olds over the last 50 years who worked for pay at any time in the year, separately for men and women by educational attainment and residence in metropolitan and non-metropolitan areas.

In the late 1960s, nearly every man, regardless of educational background, worked for pay at some point in the year. This strong tie to the labor market among men with less than a high school education was severed around the time of the first oil shock in 1973 and continued unabated thereafter.

Figure 1. Trends in Employment Rates of Men and Women Ages 25-64 by Metropolitan Status, 1967-2016



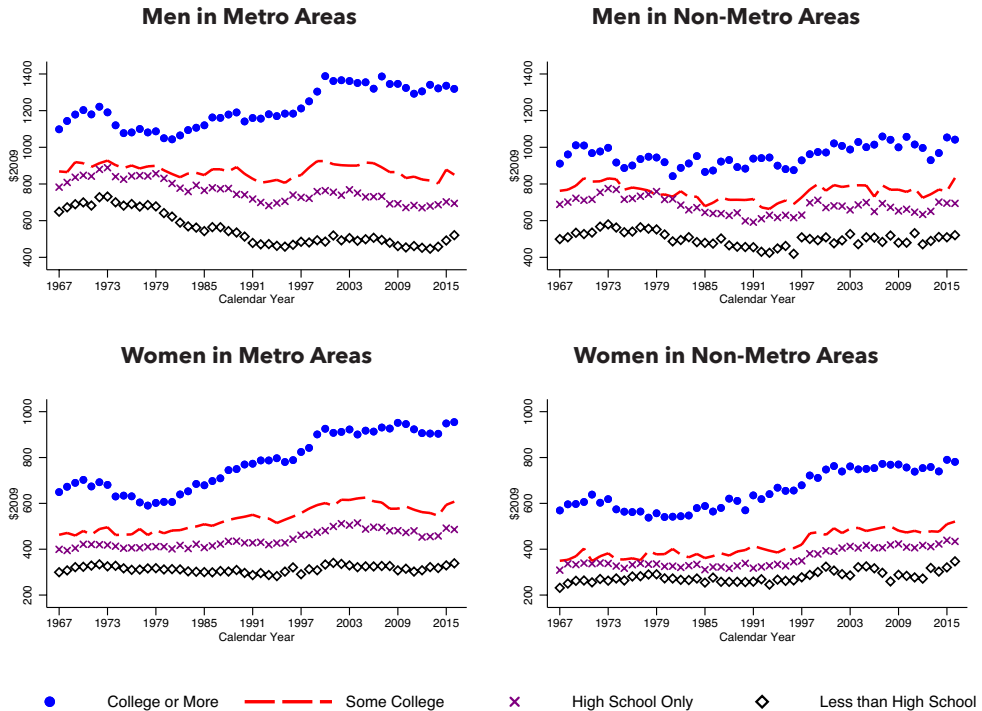
Note: Author's analysis of data from U.S. Census Bureau (n.d.), Annual Social and Economic Supplement (ASEC) of the Current Population Survey, for survey years 1968-2017 (calendar years 1967-2016). The ASEC is a nationally representative survey of about 60,000 households conducted by the U.S. Census Bureau and serves as the source of official U.S. poverty and income statistics. The sample is restricted to 25- to 64-year-olds in order to focus on those who have typically completed schooling and have not yet retired. I delete observations with imputed earnings or hours information. The geography in the CPS is coarse and does not permit granular decomposition into “rural” and “urban,” and thus I follow convention and refer to metro and nonmetro interchangeably as urban and rural, respectively. Metropolitan status is established by the Office of Management and Budget, and periodically revised, typically after a Decennial Census. Currently, an area is classified as metropolitan if it contains an urban area with at least 50,000 inhabitants.

Importantly, there was no gap among this population in urban and rural areas at the start of the period. By 2016, however, only one-in-two less skilled men in rural America worked, a rate which is 15 percentage points lower than in metro areas. A similar gap did not arise among men of other education levels. Likewise, no similar urban-rural divide is evident among women's employment rates.¹

¹ The pattern of declining employment holds among both whites and African Americans. Employment rates among African American men are considerably lower than among whites in both urban and rural places, but the race gap among women is much more attenuated.

This withdrawal from the labor market has coincided with a stagnation in the rewards to work for those remaining in employment, as seen in Figure 2, which shows trends in inflation-adjusted median weekly earnings among workers.

Figure 2. Trends in Median Real Weekly Earnings of Workers Ages 25-64 by Metropolitan Status, 1967-2016

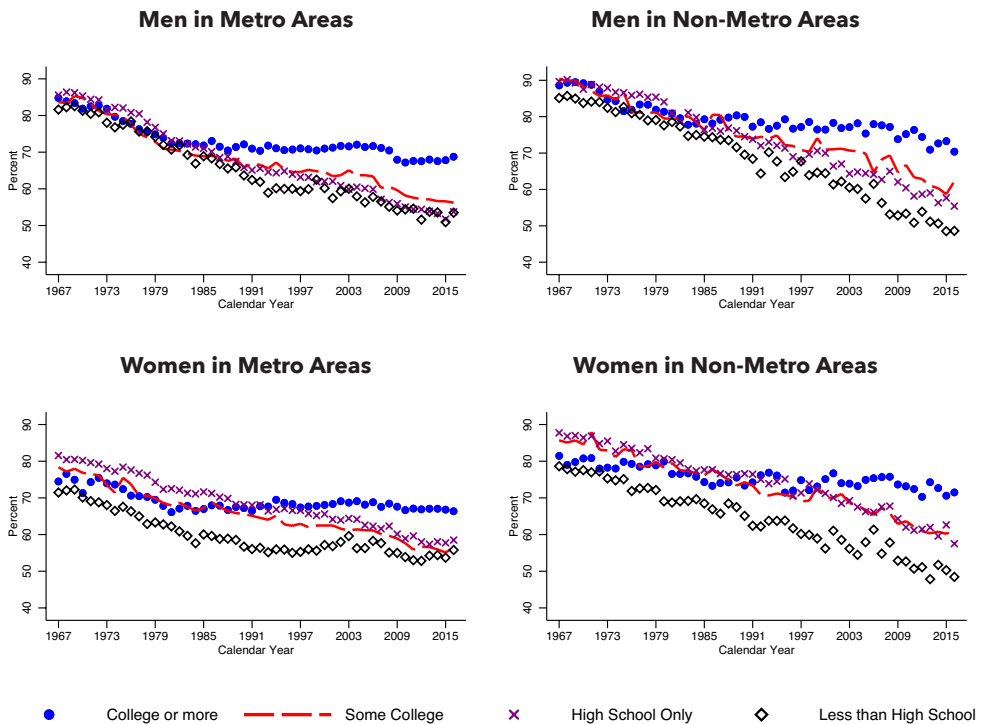


Note: Author's analysis of data from U.S. Census Bureau (n.d.), ASEC. The ASEC only reported weeks worked in the prior year until 1976, when they also asked about usual hours of work per week. Thus, to create a consistent series, I divide annual earnings by weeks worked for the entire time period, and then deflate by the Personal Consumption Expenditure Deflator with 2009 base year to convert nominal earnings to real.

While there were gains among some workers in certain periods—college-educated men and women in urban areas from the mid-1980s through 2000, and all other workers for a few years in the late 1990s—the overwhelming trend has been one of stalled economic progress, even among the skilled in the last two decades. Most of the rising return-to-skill among men has occurred in urban areas; real weekly earnings of college-educated men in rural America have been stuck at about \$1,000 for five decades, though high-skilled women in rural areas did share in some of the growth of the 1980s and 1990s. A typical assumption is that there is an “urban wage premium” for work to account for differences in cost-of-living (Moretti, 2011), but Figure 2 shows that this premium is mostly realized among college graduates (Bollinger, Ziliak, & Troske, 2011).

Exacerbating the flattening of wages at the family level is the marked retreat from marriage over the past five decades, particularly among low- and medium-skilled individuals (Wilson, 1987; Kearney & Wilson, 2018). Figure 3 shows the fraction of men and women who are married in any given year by education level and metropolitan status.² As we saw with the employment figure, in the late 1960s, there was little gap in marriage rates across education groups. Marriage rates declined for all groups in the subsequent decades; by the mid-1980s, however, marriage rates among the college-educated stabilized. However, rates among the less skilled continued their march downward, resulting in a yawning gap by 2016. For both men and women, the wedge in marriage rates between college graduates and high school dropouts is greater in rural than urban areas.

Figure 3. Trends in Marriage Rates of Men and Women Ages 25-64 by Metropolitan Status, 1967-2016

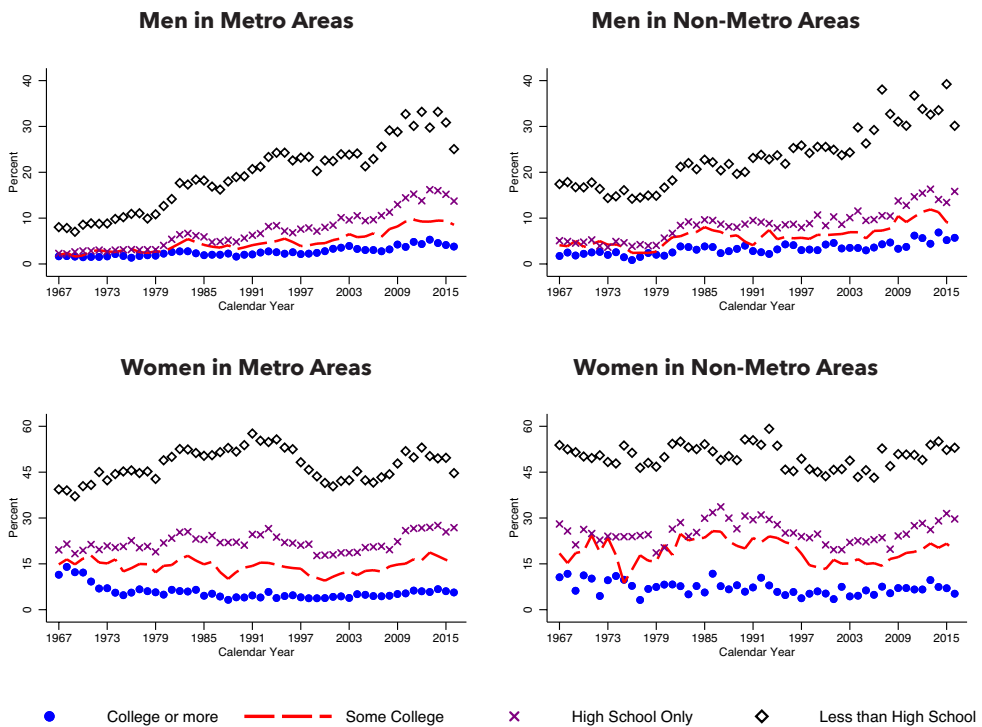


Note: Author's analysis of data from U.S. Census Bureau (n.d.), ASEC.

2 The Census definition of marriage does not include those persons cohabiting. Starting in the mid-1990s, it is possible to identify cohabiters in the ASEC; if one includes these in the definition of “married,” then the decline is attenuated.

The decline in employment and marriage, and flattening out of wages, have translated into a retrenchment in the nation's War on Poverty, as seen in trends in family poverty rates in Figure 4. A common portrait of poverty in America is of a family headed by a low-skilled single mother; Figure 4 confirms that poverty rates among households headed by low-skilled women are staggeringly high. However, with the exception of college-educated women, rates of poverty among female-headed families are basically the same in 2016 as they were in 1967.

Figure 4. Trends in Family Poverty Rates of Householders Ages 25-64 by Metropolitan Status, 1967-2016



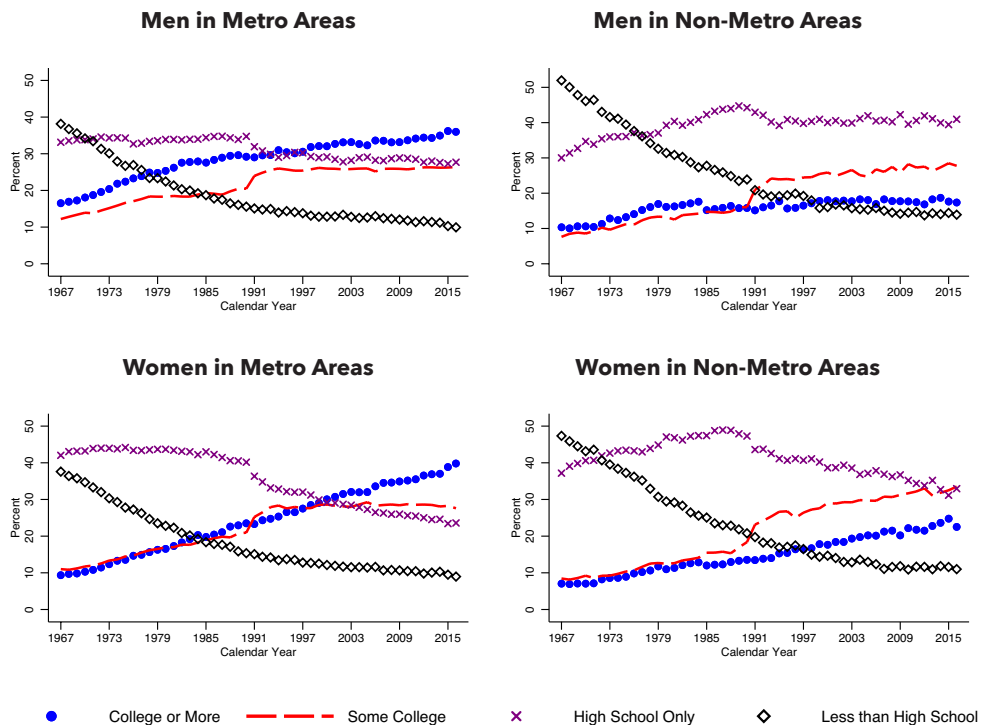
Note: Author's analysis of data from U.S. Census Bureau (n.d.), ASEC. Figure 4 presents poverty rates based on the official U.S. Census Bureau definition. The poverty line varies by family size but is fixed across the nation and is updated annually by the Consumer Price Index. Resources for the family only include money income, are calculated before taxes and credits, and do not include in-kind transfers such as food stamps, Medicaid, or Medicare.

While this is distressingly bad news, the dramatic growth in poverty rates among male-headed households is even more striking. Among households headed by a less skilled man, poverty rates have tripled in urban areas and doubled in rural areas since 1967. This growth in poverty is also seen among male-headed households with

high school or some college, which is the most direct manifestation of the decline in work and marriage depicted in Figures 1 and 3. Reinforcing these trends has been growth in so-called “assortative mating”—marriage is occurring between men and women of similar skill levels at greater rates, and this has exacerbated inequality in the United States (Blundell, Joyce, Keiller, & Ziliak, 2018).

The prior figures show that the economic station of those with a high school education or less has deteriorated over the last fifty years. A common rebuttal is that because of the secular growth in education attainment, those persons with high school or less are a declining share of the population. This is true in the aggregate, but Figure 5 shows that there are very important differences between urban and rural America in terms of skill upgrading, especially among men.

Figure 5. Trends in Education Attainment for Men and Women Ages 25-64 by Metropolitan Status, 1967-2016



Note: Author’s analysis of data from U.S. Census Bureau (n.d.), ASEC.

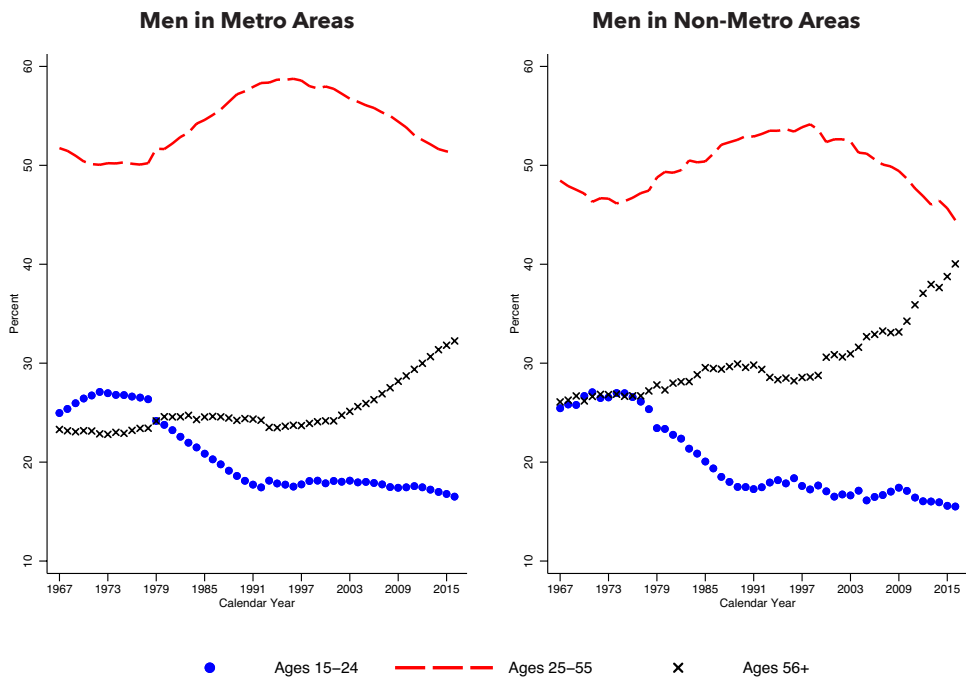
In rural places, the fraction of men with college or more has not budged since 1985. In that year, only 15% of rural men had a college education (or more), about half

the rate among urban men. Moreover, the share of rural men who are high school dropouts, high school graduates, or have some college has not changed since the early 1990s.³

While women in rural areas have continued to increase their skill levels, the fraction with a college degree or more grew substantially more slowly than in urban America. By the end of the period, rural women had rates of college completion of about 20%, compared to 40% among urban women.

The final piece of background on rural places concerns changes in the age composition of the potential workforce, and the concomitant changes in the composition of income. Figure 6 shows trends in three broad age groups: teenagers and young adults ages 15-24, prime age workers ages 25-55, and older workers and potential workers ages 56 and over.

Figure 6. Trends in Age Composition of Potential Labor Force by Metropolitan Status, 1967-2016



Note: Author's analysis of data from U.S. Census Bureau (n.d.), ASEC.

3 There was a change in how the Census recorded educational attainment in 1991, which accounts for the abrupt change in high school completion and some college in that year, but it has no bearing on the overall trends.

The demographic bulge of the Baby Boom generation is clear in the figure, but so, too, is the fact that the population of rural America is aging faster than the population of urban areas. The share of prime-age workers is about 10 percentage points lower in rural areas, while the share of older persons in rural places is about 10 percentage points higher.

Figure 7. Share of County Income from All Income Transfers in 1970

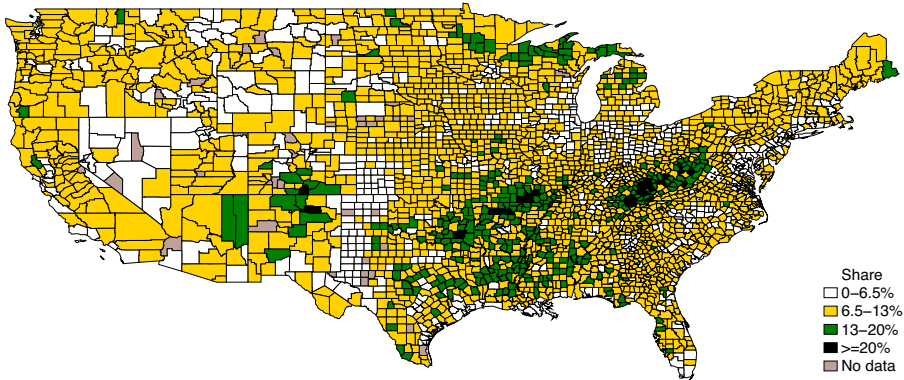
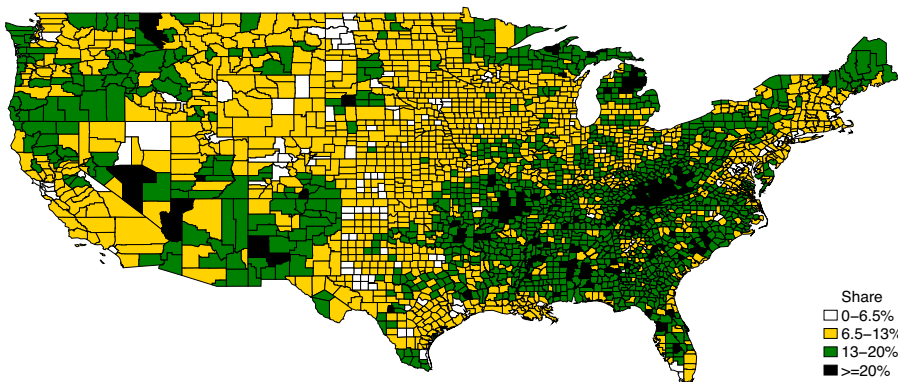


Figure 8. Share of County Income from All Income Transfers in 2015



Note: The data come from Bureau of Economic Analysis (n.d.). Personal income for county is the income received by all persons resident in the area, and includes wages and salaries, supplements to wages and salaries, proprietors' income, dividends, interest, and rent, and personal current transfer receipts, less contributions for government social insurance. Total transfers in the figures refer to all cash transfers received by individuals such as Social Security retirement and disability (SSDI), welfare (AFDC/TANF, food stamps/SNAP, SSI, EITC, general assistance), unemployment, and education but does not include in-kind transfers from Medicaid, Medicare, and military health insurance.

Figures 7 and 8 depict changes in the share of county income from income transfers (excluding health transfers) in 1970 and 2015. In the figures, the darker the shade, the greater the share of income from transfers. Over the 45-year period, greater reliance

on transfers was widespread, with the possible exception of some of the most economically vibrant major urban centers and select rural counties. However, the counties with very high rates of reliance on transfers, in excess of one-in-five dollars, are found in the more economically remote rural areas. Some of this evolution is from demographic aging and increased receipt of Social Security Retirement, but some also is due to the growth in disability receipt among potential workers from both Social Security Disability and Supplemental Security Income.

3. Proposals to Restore Economic Opportunity for Rural Americans

The evidence is clear: rural America suffers from a lack of employment and a lack of skilled workers, a combination of factors that has resulted in a deterioration in the economic well-being of rural families. Bollinger et al. (2011) referred to this phenomena as a case of “missing markets”—there is neither the demand for, nor the supply of, skill. Over the course of the 20th century, this human capital shortfall has been estimated to account for about 60% of the persistent difference in per capita incomes between the most economically distressed rural regions of the country and the rest of the nation (Islam, Minier, & Ziliak, 2015). The combination of a less educated population with a faster aging population means that economic recovery in rural places will be more challenging than in urban.

To address these challenges, I propose a strategy that combines people-based and place-based policies. A multi-pronged approach is premised on the fact that the reasons for the decline in rural employment are numerous, poverty in the most remote regions crosses multiple generations, and rural America is very heterogeneous, suggesting that a “one size fits all” model is not likely to work.

The literature highlights three main rural subregions (Partridge, 2010): (1) those that are amenity destinations (e.g., resort towns such as Aspen, CO); (2) those that are urban adjacent—for example, Oneonta, NY, which lies outside of but in the shadow of the Albany MSA; and (3) those that are remote and often resource-dependent (e.g., Harlan, KY). Workers, especially those with low and moderate skills, face significant challenges in all three types of subregions, but effective solutions to boost employment are likely to differ. The people-based proposals are targeted to residents of all three subregions, while the place-based proposals are specifically aimed at residents of remote rural regions.

BRINGING PEOPLE TO JOBS (PEOPLE-BASED POLICIES)

The United States currently spends in excess of \$2 trillion annually on myriad entitlement and welfare programs such as Social Security, Medicare, Medicaid,

Disability Insurance, the Supplemental Nutrition Assistance Program, and the Earned Income Tax Credit, among many others. However, compared to our OECD counterparts, we spend remarkably little on active labor market policies (Council of Economic Advisers, 2016) and early childhood support (e.g., child care, Pre-K).

Research on the long-term returns to early intervention (Elango, Garcia, Heckman, & Hojman, 2016) suggests that a major federal investment in the latter is required to truly address systemic rural disadvantage and disrupt the cycle of intergenerational joblessness and poverty. My focus here, however, is on the current generation of workers and thus on active labor market policy.

New Start Relocation Assistance Program

Employment opportunities in rural America are too few to absorb the current pool of potential workers out of the labor force. Observers often pose the obvious question: Why don't these individuals simply move to opportunity? For some, attachment to place is very strong, perhaps for family reasons or preferences for small-town and rural living. Others may have a desire to move but face binding liquidity constraints that prevent them from moving—they may lack the resources for a down payment for housing or other moving expenses, for example, or may be concerned about uncertain employment and earnings prospects in a potential new location.

For the latter group of individuals, I propose a program called the New Start Relocation Assistance Program (NSRAP). Evaluations of active labor market policies find that job search assistance programs are typically the most effective (Heckman, Lalonde, & Smith, 1999; Card, Kluve, & Weber, 2010; Barnow & Smith, 2016), but relocation assistance is not typically included in job search programs.⁴

One such program was established in Germany in 1998, and then expanded with the Hartz Reforms in 2002 and 2003 (Caliendo, Künn, & Mahlstedt, 2017). The program requires recipients to relocate to a new job outside normal daily commuting radius, defined as a 2.5-hour roundtrip or greater from their current residence.⁵ Participants can either permanently relocate to the new destination, or retain their current residence and reside at the new location during the workweek. For those making a permanent move, all moving costs up to €4500 are covered. Those renting a secondary unit for the workweek are provided €260 per month for the first six months of the job. The average per-participant cost for both types of assistance was about €1177 in 2006. The new job has to be lined up ahead of the move, and all decisions on whether to grant the applicant the relocation assistance are determined by the local caseworker's assessment of local employment conditions and the agency's budget.

4 Job search assistance programs vary widely, but often include counseling on how to fill out job applications, how to search for job vacancies, and how to prepare for job interviews.

5 Those accepting jobs less than 2.5 hours from their current residence might be eligible for a temporary commuting tax credit for the first six months on the job. I discuss this in the next subsection.

Caliendo et al. (2017) evaluated the program and found that participants received wages about 25% higher in their new jobs (compared to nonparticipants), and that those jobs were more stable (i.e., longer duration) and offered greater upward mobility. Interestingly, they also found that the program was beneficial for older workers and married workers, who presumably are less likely to move.

The most prominent relocation program in the United States was the *Moving to Opportunity* (MTO) program, which provided low-income families residing in five large urban areas access to housing vouchers to move to low-poverty neighborhoods. This was a neighborhood-change program that, among other goals, was to offer greater job opportunities for participants. As such, it was not a jobs program per se, and evaluations did not identify much improvement in adult employment and earnings; researchers did find gains in health status (Kling, Liebman, & Katz, 2007). However, recent evidence points to long-term gains in college attendance and earnings among the young children of MTO families, though children who were adolescents at the time of the move did worse in the long run (Chetty, Hendren, & Katz, 2016).

Much less well-known are two programs begun in the wake of the 1996 welfare reform that offered payment to welfare recipients to relocate to new jobs.⁶ One was a statewide program in the Commonwealth of Kentucky that offered \$900 to current TANF families to accept a full-time job in a location that was at least 10 miles away from their current residence. The new job had to be verified in advance, or secured within 90 days of the date of request for assistance. An evaluation of the program by Briggs and Kuhn (2008) found that of the 3,992 moves in their sample from 1998-2004, 67% were within county, 16% were to another county in Kentucky, and the remaining 18% were to another state, with Ohio being the primary destination. Their estimates suggest that a one-standard-deviation increase in the payment amount resulted in a 20% increase in employment and an 18% increase in unconditional earnings, but no change in earnings among those currently working at the time of the move.⁷

The other program, More Opportunities for Viable Employment (MOVE), was a county-based program located in Tulare County, California.⁸ MOVE was more generous than the Kentucky program, offering benefits that averaged about \$2,900 per recipient, in part because the new location was required to be out of state. County social workers assisted clients with job search, housing search, and other transitional activities, and

6 The U.S. implemented a relocation assistance program in 1976 in 40 offices, which fell to 18 offices by 1980. Mueller (1981) provides evidence that the program did lead to increased migration among participants relative to a comparison group, and this migration was most pronounced among those with high school or less.

7 At the means, the evidence in Briggs and Kuhn (2008) suggest that elasticity of employment with respect to the Kentucky relocation payment was 0.27, while the unconditional earnings elasticity was 0.24.

8 California is one of a handful of states that devolve some administrative oversight of their welfare program, Temporary Assistance to Needy Families, to the county level. Tulare leveraged this flexibility to establish the MOVE program.

also kept in touch with clients for six months after the move. While there has been no formal evaluation of the program, early indications suggested that 85% of movers had not returned after six months; of those staying in the new location, two-thirds had family members with employment (Moore, 2002). Administrators claimed the program saved the county \$9.8 million, but it was nonetheless ended in 2017 due to budget cuts (Cederlof, 2017).

The scope for the New Start Relocation Assistance Program would extend beyond the welfare population. As such, I envision that it would be run by state workforce development offices rather than welfare offices. The advantage of this structure is that workforce offices already have in place a bevy of job-assistance programs, typically broader in scope than those offered by welfare agencies, that the out-of-work could access.

Eligibility for NSRAP would be available to those: (a) at least 18 years of age; (b) unemployed or out of the labor force; (c) willing and able to permanently relocate to a new job location that is at least two commuting zones from the current residence; and (d) who have secured employment offering at least 30 hours per week at the federal minimum wage or higher, either before the move or within the first 90 days. In order to contain initial program costs, eligibility could be restricted to those out of work for six months or longer, thus focusing efforts on the long-term unemployed. The Kentucky criteria of jobs at least 10 miles away seems too lenient, and the MOVE requirement of out-of-state seems too stringent. Commuting zones are well-defined delineations of local labor markets in the United States based on actual commuting patterns; as of the 2000 Census, there are 709 such zones. The requirement of a move that is permanent and at least two zones away is based in part on the fact that below I propose an alternative program that does not require relocating and addresses commuting costs for jobs likely obtained in the current or adjacent commuting zone.

In terms of benefits, I propose that participants be reimbursed up to \$1,500 in moving expenses and start-up costs (e.g., rental down payments) for moves that are between two and four commuting zones away, and an additional \$500 for moves of five zones or more away from the current residence. The housing contract must be verifiable and executed prior to the move. In addition, the household (not the individual worker in the event of multiple worker-households) would be provided an additional weekly living stipend—this stipend would equal one-half the average maximum Unemployment Insurance benefit for the first 13 weeks, and one-fourth the average maximum for 13 additional weeks (26 weeks is the normal maximum eligibility for UI). In 2017, the average maximum weekly UI benefit was \$441, and thus the maximum that the household would be provided is \$4300 ($=0.5 \times 441 \times 13 + 0.25 \times 441 \times 13$). Those who do not have verified employment prior to relocation would remain eligible for the program, but the post-relocation assistance benefits would expire after 13 weeks if full-time employment is not secured.

Participants would also be eligible for job search assistance programs and activities at the local workforce development center. Based on evaluations of welfare programs in California, Missouri, and North Carolina showing long-term benefits of human capital training prior to work (Hotz, Imbens, & Klerman, 2006; Dyke, Heinrich, Mueser, Troske, & Jeon, 2006), some of these job search programs would ideally include formal training on financial management and career development.

Commuter's Credit

Many rural individuals are unable or unwilling to relocate, and relocation may not be necessary in some cases because of more immediate employment opportunities in the current or nearby commuting zone. Moreover, as the experiences of some participants in the Kentucky program suggest, the challenges that impede economic self-sufficiency in the home location may follow the worker to the new destination (Jaffe, 1999a; 1999b). However, as evidenced by declining employment rates, challenges remain for these rural persons that prevent them from participating in the labor force, even in the presence of the Earned Income Tax Credit.

The second-largest expenditure in the typical U.S. consumer's budget is transportation, accounting for about 15.3% of all spending in 2015-2016 (Consumer Expenditure Survey, 2017).⁹ However, this burden is greater in rural areas, accounting for nearly 20% of expenditures on average. Life without a car is nearly impossible in rural areas, and access to public transportation is all but nonexistent. The extensive rail system in Great Britain and continental Europe shuttles millions of workers daily from rural communities to urban centers that contain plentiful employment opportunities. No such network exists in the United States, and, while the construction of such a network may be a worthy policy goal, it will take decades to implement such an initiative. This transportation burden creates a potential disincentive for residents from rural communities to seek employment because the cost of going to work eats up a sizable share of earnings; this is especially true for low-wage workers who often can only afford older, used vehicles that are less reliable, require greater maintenance, and have worse gas mileage (Glaeser, 2011).¹⁰

Residents from all three rural subregions would benefit from a change in commuting policy. Service workers in amenity destinations very often cannot afford to reside in the resort community because of high housing costs and thus drive from distant locations. Likewise, workers in remote communities often are required to cross multiple county lines and normal commuting zone boundaries to find gainful employment, which entails substantial outlays for transportation.

⁹ This is based on pooled two years of data in the Consumer Expenditure Survey.

¹⁰ Glaeser (2011) argued that the current Census Bureau practice of only accounting for housing prices in the geographic cost-of-living adjustment in the Supplemental Poverty Measure is biased against the poor in rural areas because of transportation cost issues, and recommended inclusion of a transportation adjustment to the poverty thresholds.

Residents in urban-adjacent (and suburban) communities—some of whom would presumably prefer to live within the urban core but face severe housing shortages and/or prohibitive rents due to restrictive building policies—would also find transportation relief a useful stimulus to employment. Using information on commuting distances in the American Community Survey, Edwards, McKenzie, and Short (2014) show that New York, Chicago, and Los Angeles do not show up among the top 50 costliest commuting cities; several of the metro areas adjacent to those cities, however, rank at the top of the list because residents are crossing boundaries to get to work. Indeed, Hsieh and Moretti (2017) argue that the housing restrictions in the high-productivity metro areas of the United States create such a large distortion of labor that aggregate growth was 50% lower than what it would have been in the absence of such policies in the 45 years from 1964-2009. They suggest that subsidizing transportation might alleviate this distortion in the short run.

I propose the creation of a Commuter’s Credit, which would be a transportation subsidy to workers in their first twelve months of employment in a new job.¹¹ Like the New Start Program, the Commuter’s Credit would be operated out of local government employment centers and be available to those (a) at least 18 years of age; (b) unemployed or out of the labor force; and (c) who have secured employment offering at least 30 hours per week at the federal minimum wage or higher. To reduce incentives for short-term job flipping, the credit would be limited to no more than 12 months in any 24-month period.

For those who own their vehicle, the credit amount would be the product of the federal per diem rate for mileage (\$0.535/mile in tax year 2017), the average daily commuting distance from place of residence to the place of work, and the number of days worked. Proof of ownership and mileage would be necessary (e.g., the employment agency would need to verify the home and work address); and to contain costs, a maximum would be necessary.

To gauge possible costs, Edwards et al. (2014), using proprietary data on Census block location of place of residence and place of work, estimated miles traveled to work for respondents in the American Community Survey in 2007-2011. They found that vehicle-owning, nonmetro residents in the South had the longest average daily commute at 24.85 miles, while those in the metro Northeast had the shortest average commute at 17.78 miles. At the current per diem rate and a five-day workweek for 50 weeks per year, this means the credit as proposed would be worth \$3,324 for a resident in the nonmetro South and \$2,378 in the metro Northeast. For cost containment, I recommend capping the number of miles at 20 per day and 5,000 per year for non-metro residents, and 10 miles per day and 2,500 per year for

11 Currently, tax filers who itemize are able to deduct unreimbursed travel expenses for temporary job assignments on Form 2106 but are not permitted to deduct commuting expenses associated with permanent assignments. The downside of allowing a tax deduction (or credit) for permanent commuting costs is that it effectively subsidizes suburban sprawl, adding environmental costs of increased emissions and congestion.

metro residents. This amount would place the credit on par with the average EITC for families with qualifying children; it would also result in a much larger credit for childless workers, providing a needed boost to the incentive to work.

For commuters who do not own their vehicle, the American Public Transportation Association reports that, in 2012, the average one-way bus fare was \$1.54, and the one-way heavy rail fare (e.g., subway) was \$2.04. Assuming a five-day week and a 50-week work year, the average costs amount to \$1,020 (for heavy rail commuters) and \$770 (for bus commuters). I suggest capping deductibility at 75% of mode cost.¹²

BRINGING JOBS TO PEOPLE (PLACE-BASED POLICIES)

The relocation assistance program and commuting credit are designed to assist a mobile workforce. For those workers unable to move and/or too distant from commuting zones offering ample labor market opportunities, I propose a program that brings jobs to people. The target population for these initiatives are those communities categorized as “persistently poor,” based on the USDA definition of county poverty rates in excess of 20% since 1980.

Currently, there are 353 counties, or 11.2% of the total, that are classified as persistently poor; the preponderance of them are nonmetro counties (U.S. Department of Agriculture, 2018). These counties are generally clustered in five regions: central Appalachia, the “Black Belt” region from the Carolinas to Alabama, the Mississippi Delta, the Texas “colonias” that border the Rio Grande river, and counties with Native American reservations in the western United States. These five regions vary greatly in terms of race, ethnicity, geography, culture, and primary economic specialization. What they have in common, and what distinguishes them even from other rural counties, are low levels of formal education attainment, low labor force participation rates, low capital expenditures, and greater distances from urban economic hubs—when combined, these factors help explain the high rates of poverty persistence (Islam et al., 2015). As depicted in Figures 7 and 8, they are also distinct from other rural areas in their long-term reliance on transfers as a share of personal income. The structural impediments that prevent these communities from more widely sharing in the American dream run deep, and many of their residents embody the contemporary characterization of “the people left behind.”

Economists are generally wary of place-based policies, arguing that policymakers are not good at picking winners and losers in business and industry (Schultze, 1983; Glaeser & Gottlieb, 2008). The thinking is that business subsidies may induce new

¹² The National Academy of Science in their proposal for a new measure of poverty recommended capping work expenses at 85% of average weekly expenses as reported in the Survey of Income and Program Participation. Edwards et al. (2014) report that this would amount to \$14.40 per week, or \$720 for a 50-week year (Citro & Michael, 1995).

firms to bring new migrants to the area instead of hiring locals, leading to upward pressure on local house prices and rents. While such price pressure benefits current owners, it harms current renters who are more likely to be poor. However, recent work by Austin, Glaeser, and Summers (2018) provides some theoretical and empirical grounding for place-based policies in areas with historically high rates of nonemployment, which include the persistently poor regions.

The largest place-based policy initiatives in the United States were the Tennessee Valley Authority (TVA), established by President Roosevelt in 1933, and the Appalachian Regional Development Act (ARDA), signed into law by President Johnson in 1965. Kline and Moretti (2014a) studied the TVA program and found that the infusion of federal resources up to 1960 resulted in a large increase in manufacturing productivity and output and spillovers into the local market, though the spillover benefits to national manufacturing were small.

Ziliak (2012) studied the ARDA and found that poverty in Appalachia fell by 7.6 percentage points (16 points in the more impoverished Central region) between 1960 and 2000, relative to the rest of the United States. Most of the effect was realized in the first five years after implementation when the bulk of resources flowed into the Appalachian region. In recent decades, place-based policies have been adopted via enterprise zones, empowerment zones, Promise Zones, and, most commonly, via city or state provision of subsidies for firms to locate “million-dollar plants” in a jurisdiction (Greenstone, Hornbeck, & Moretti, 2010). Kahn (2012) reviewed the place-based literature as it applies to rural areas such as Appalachia and concluded that in-migration is likely to be minimal, and thus most of the benefits of investment are likely to accrue to current residents. These communities, especially those that are persistently poor, currently have inadequate resources to realize these dreams on their own and thus need a federal jump start for their growth strategies.

Rural Broadband

Fifty years ago, when the President’s National Commission on Rural Poverty proposed a comprehensive program for rural America, the most impoverished areas lacked paved roads, potable water, indoor plumbing, and other basic amenities (such as access to health care) that more affluent parts of the nation had been enjoying for decades. In the decades that followed, much of this infrastructure deficit was filled with programs operated through the Departments of Agriculture, Commerce, Health, Housing, and Transportation. These investments, coupled with the War on Poverty programs of food stamps, Medicaid, and Medicare, lead to clear reductions in material hardship (Ziliak, 2012; Nolan, Waldfogel, & Wimer, 2017).

The infrastructure required for the digital gig economy of the 21st century is broadband internet access, but rural areas are lagging sorely behind in access. The 2016

broadband report card issued by the Federal Communications Commission states that 39% of rural residents lack access to broadband, defined as 25 Mbps down/3 Mbps up service, compared to 4% of urban residents (Federal Communications Commission, 2016).

The goal of this technology is to expand telework that permits workers (e.g., from finance, consulting, design, etc.) residing in rural areas to connect to jobs located in urban areas, which both relieves congestion in urban centers and allows workers with good jobs to remain in rural communities. In addition, a robust broadband network would permit rural manufacturers, artists, and craft persons to access more markets for their products. A high-quality network would also facilitate the siting of the growing technology support-services sector (e.g., call centers) and power-hungry data storage hubs used in cloud computing. An example of the latter are the massive Google servers housed in The Dalles, Oregon (population 13,620) and Moncks Corner, South Carolina (population 7,885). Beyond economic development, a robust broadband network will expand education opportunities and access to health care (via telemedicine) for rural Americans.

Levin and Matthey (2017) proposed that the Trump Administration include a one-time rural broadband acceleration fund of \$20 billion to jump start the infusion of the technology to rural areas. The president's recently released \$200 billion federal infrastructure plan allocates \$50 billion to rural infrastructure and \$20 billion to transformative projects (The White House, 2018). I believe that these resources should be first targeted to the persistently poor counties, which are the least connected, and then expanded out toward the adjacent rural communities, before linking to urban centers.

This is the strategy of a project called KentuckyWired, which was established in 2015 by then-Kentucky Governor Steve Beshear (a Democrat) in collaboration with U.S. Representative Hal Rogers (a Republican). This bipartisan plan proposed laying the crucial "middle mile" of fiber-optic cable first in Eastern Kentucky, one of the most prominent persistently poor regions of the nation, and then laying over 3,000 miles throughout the state. The project has faced significant delays and cost overruns, which has led to second guessing and reservations among state legislators on whether to move forward given the budget crisis in the state. Rep. Rogers, however, believes it is a must for the region (The Daily Independent, 2017).

Of the initial cost estimate of \$270 million, less than 10% came in the form of federal grants. This federal contribution is woefully inadequate—the success of this project and others around the nation will require a substantial commitment of federal resources. The nation risks falling further behind our economic competitors without making such a concerted investment.

Financial Capital for Entrepreneurs

Although winning “million dollar plants” and other large-scale manufacturing enterprises are the dreams of many rural (and urban!) communities, manufacturing as a share of overall U.S. employment has declined from more than one-in-four jobs in 1967, to fewer than one-in-ten jobs five decades later (Bureau of Labor Statistics, n.d.a.). During that same period, aggregate employment in agriculture, fishing, mining, forestry, oil and gas, and related sectors, while rising and falling with the business cycle, has held steady at about 660,000 jobs (Bureau of Labor Statistics, n.d.b.). There are concerns that artificial intelligence and other technological advancements may displace millions of incumbent job holders in coming decades, and, partly in response, many of these workers are projected to become self-employed independent contractors (or, worse, disemployed).

Access to high-speed internet is a crucial physical infrastructure need for rural communities seeking to bring jobs to people during this transition period. But once these communities are digitally connected, there will be an additional need for financial capital to help new businesses launch and existing business expand, so that both may take advantage of the new market opportunities afforded by the physical infrastructure. Financial capital for entrepreneurs is a natural complement to broadband expansion, but it is in limited supply and is more difficult to access in rural communities than urban areas (Drabenstott & Meeker, 1997; Markley, Pages, Scruggs, & Miller, 2012).

There currently exists an established federal infrastructure devoted to these financial capital issues in the USDA Rural Development Agency. The agency currently operates over 50 programs, housed under three broad umbrellas—the Rural Business-Cooperatives Service (RBCS), Rural Utilities Service, and Rural Housing Service.

RBCS provides loans, loan guarantees, and grants to foster local economic development, generally in communities of fewer than 50,000 residents. Most of the assistance provided by RBCS flows through state and local governments, lending institutions, or institutions of higher education.

For example, the Business & Industry Loans Guarantees program is operated through federal- or state-chartered banks, savings and loans, or credit unions; the latter financial institutions provide loans for business conversion or development, the purchase of land or capital, and business acquisitions. The loan guarantees are set at a declining fraction of loan amount, from 80% for loans less than \$5 million, to 60% for loans between \$10 million and \$25 million.

The Rural Business Development Grants are provided directly to towns or communities, non-profit corporations, or higher education institutions that award grants in the amounts of \$10,000 - \$500,000 to both for-profit and not-for-profit

emerging businesses (with 50 or fewer new employees and sales less than \$1 million). The grants can be used for technical assistance, development of land, and pollution control, among other activities.

The Rural Microentrepreneur Assistance Program provides loans and grants to Microenterprise Development Organizations (MDOs). These MDOs work with firms with 10 or fewer full-time workers and provide grants up to \$205,000 annually, and loans in the amount of \$50,000 - \$500,000 through a Rural Microloan Revolving Fund that is similar in spirit to the Grameen Bank in Bangladesh and the South Shore Bank in Chicago.

The FY2018 budget for the entirety of RBCS programs is a modest \$1.007 billion, with the lion's share (\$864 million) allocated to Business & Industry Loans Guarantees. However, in a development that seems remarkably incongruent with the administration's \$50 billion rural infrastructure pledge, the president's FY2019 budget completely eliminates the budget for RBCS but retains funding for the Rural Utilities Service and Rural Housing Service.

My proposal is to not only retain funding for the RBCS, but to expand it to \$3 billion, and to initially target the persistently poor regions. Because some of the current programs in RBCS appear duplicative with programs in the Utility Service (e.g., biofuel and rural energy programs), the additional funds should be directed to programs that support new business development and the growth of existing local businesses, and that prioritize local employment growth. For example, Bartik (2001) showed that wage subsidies are effective at stimulating employment if and only if they are targeted to new job creation.

To ensure that the benefits flow to current residents, grants and loans should be given primarily to individuals and businesses who have maintained residency in the area for three of the last five years. Moreover, because evaluations of the effectiveness of microenterprise programs in developing countries often yield mixed results (Banerjee, Duflo, Glennerster, & Dinnan, 2015), a portion of the new funds should be devoted to rigorous evaluations of demonstrations. The Farm Bill, which funds most major programs in USDA, is up for renewal in 2018—this represents an important opportunity for the Congress to more comprehensively fund rural economic development programs.

Jobs of Last Resort

Guaranteed full employment formed the cornerstone of the proposals espoused in *A People Left Behind* (Breathitt, 1967), and achieving "maximum employment" is one of the mandates of the Federal Reserve System, as spelled out in the Federal Reserve Act of 1977.

While the U.S. economy has one of the most dynamic labor markets in the world, and one of the consistently lowest unemployment rates, there is significant geographic variation in the availability of work, with rural areas lagging substantially behind. Paul, Darity, Hamilton, and Zaw (2018) show that the aggregate jobs gap—the difference between the fraction of the labor force unemployed, discouraged, and/or marginally attached to the labor force (the U6 series produced by the Bureau of Labor Statistics) and the rate of new job openings—reached a modern era peak of 16 percentage points during the height of the Great Recession. While it has fallen in subsequent years, it is still, at 6 percentage points, too high. Undoubtedly, this gap is much greater in rural America. While the place-based proposals above will narrow the gap, there is likely to be a sizable number of persons seeking employment in the most remote areas who lack the skills to embark on a path of self-employment or to be absorbed by new private sector employment.

For these persons and communities, I propose that we implement a federal program that provides jobs of last resort. The United States implemented a federal jobs program during the Great Depression with the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). Combined, they employed millions of workers from 1933-1942. The WPA focused on infrastructure such as roads, bridges, dams, court houses, schools, and utilities, and the CCC focused on parkland and natural resources, developing over 800 parks nationwide and planting over 3 billion trees (Civilian Conservation Corps Legacy, n.d.). President Jimmy Carter proposed public sector jobs of last resort as part of the 1977 Program for Better Jobs and Income, and academics periodically make a case for public sector employment (Danziger & Gottschalk, 1995; Paul et al., 2018).

With employment rates of 50% among the less skilled in rural areas, the argument for such public employment is stronger than ever. These regions have become disability “hot spots,” with rates of participation in SSDI and SSI at least 2 to 3 times the national average. Participation in these programs is often permanent—people rarely exit once on the program (Autor & Duggan, 2006; Duggan, Kearney, & Rennane, 2016). It is almost certainly preferable to offer publicly funded jobs of last resort to those able to work than for those workers to enter and likely remain on disability for the remainder of their productive years.

The \$50 billion allocated to rural areas in the president’s infrastructure plan represents an excellent opportunity to allocate resources to federal employment programs focused on rural infrastructure needs (The White House, 2018). This could entail work on repairs of dilapidated roads; bridges; and public utilities, such as municipal water supplies, rehabilitation of long-neglected CCC trails, and the creation of tourist amenities such as “rails to trails,” among many others.

While meta-analyses of public sector employment programs generally find null effects on earnings (Heckman et al., 1999; Card et al., 2010), there are examples of programs yielding benefits that exceed the costs of the program (Jespersen, Munch, & Skipper, 2008). Successful programs typically are of longer duration and include formal skills training over and above direct on-the-job-experience. The wages paid to the workers should be commensurate to local prevailing wages, which in some cases means that they would still remain eligible for transfers such as SNAP, Medicaid, and the EITC. To improve target efficiency for the local communities, eligibility should be restricted to persons residing in the local commuting zone for at least three of the past five years.

References

- Austin, B., Glaeser, E., & Summers, L. (2018). *Jobs for the Heartland: Place-Based Policies in 21st Century America* (NBER Working Paper No. 24548). Retrieved from National Bureau of Economic Research website: <http://www.nber.org/papers/w24548>
- Autor, D., & Duggan, M. (2006). The Growth in the Social Security Disability Rolls: A Fiscal Crisis Unfolding. *Journal of Economic Perspectives*, 20(3), 71-96.
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, 7(1), 22-53.
- Barnow, B., & Smith, J. (2016). Employment and Training Programs. In R.A. Moffitt (Ed.), *Economics of Means Tested Transfer Programs in the United States: Volume 2* (127-234). Chicago, IL: NBER and University of Chicago Press.
- Bartik, T. (2001). *Jobs for the Poor: Can Labor Demand Policies Help?* New York, NY: Russell Sage Foundation.
- Blundell, R., Joyce, R., Keiller, A., & Ziliak, J. (2018). Income inequality and the labour market in Britain and the US. *Journal of Public Economics*. <https://doi.org/10.1016/j.jpubeco.2018.04.001>
- Bollinger, C., Ziliak, J., & Troske, K. (2011). Down from the Mountain: Skill Upgrading and Wages in Appalachia. *Journal of Labor Economics*, 29(4), 819-857.
- Booth, W. (2002, June 17). Moving Far Off Welfare. *The Washington Post*. Retrieved from https://www.washingtonpost.com/archive/politics/2002/06/17/moving-far-off-welfare/4950fed3-2f62-4c55-9fa0-33c72ebe85df/?utm_term=.cd0abb3c0c62
- Breathitt, E. (1967). *The people left behind: A report by the President's national advisory commission on rural poverty*. Washington, DC: National Advisory Commission on Rural Poverty. Retrieved from <https://files.eric.ed.gov/fulltext/ED016543.pdf>
- Briggs, B., & Kuhn, P. (2008). *Paying for the Relocation of Welfare Recipients: Evidence from the Kentucky Relocation Assistance Program* (University of Kentucky Discussion Paper 2008-01). Retrieved from University of Kentucky Center for Poverty Research website: <http://www.ukcpr.org/sites/www.ukcpr.org/files/documents/DP2008-01.pdf>
- Bureau of Economic Analysis, U.S. Department of Commerce. (n.d.). *Regional Economic Information System* [Data file].

- Bureau of Labor Statistics. (n.d.a.). All Employees: Manufacturing/All Employees: Total Nonfarm Payrolls [Graph]. Retrieved from <https://fred.stlouisfed.org/graph/?g=4EKm>
- Bureau of Labor Statistics. (n.d.b.). Employment, Hours, and Earnings from the Current Employment Statistics survey (National) [Graph]. Retrieved from https://data.bls.gov/timeseries/CES1000000001?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true
- Caliendo, M., Kunn, S., & Mahlstedt, R. (2017). The return to labor market mobility: An evaluation of relocation assistance for the unemployed. *Journal of Public Economics*, 48, 136-151.
- Card, D., Kluve, J., & Weber, A. (2010). Active Labour Market Policy Evaluations: A Meta-Analysis. *The Economic Journal*, 120(548), 452-477.
- Caudill, H. (1963). *Night Comes to the Cumberland: A Biography of a Depressed Area*. New York, NY: Little, Brown, and Company.
- Cederlof, C. (2017, July 27). Tulare County cuts employment assistance program. *Visalia Times-Delta*. Retrieved from <http://www.visaliatimesdelta.com/story/news/2017/07/27/tulare-county-cuts-employment-assistance-program/516764001/>
- Chetty, R., Hendren, N., & Katz, L. (2016). The Effects of Exposure to Better Neighborhoods: New Evidence from the Moving to Opportunity Experiment. *American Economic Review*, 106(4), 855-902.
- Citro, C., & Michael, R. (1995). *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.
- Civilian Conservation Corps Legacy. (n.d.). *CCC Brief History*. Retrieved from http://www.ccclegacy.org/CCC_Brief_History.html
- Consumer Expenditure Survey, U.S. Bureau of Labor Statistics. (2017). Table 2400: Population size of area of residence: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2015-2016. Retrieved from <https://www.bls.gov/cex/2016/population/population.pdf>
- Council of Economic Advisers. (2016). *Active Labor Market Policies: Theory and Evidence for What Works*. Washington, DC: White House, Executive Office of the President. Retrieved from https://obamawhitehouse.archives.gov/sites/default/files/page/files/20161220_active_labor_market_policies_issue_brief_cea.pdf
- The Daily Independent. (2017, October 11). Kentucky Wired way behind schedule. *The Richmond Register*. Retrieved from http://www.richmondregister.com/opinion/kentucky-wired-way-behind-schedule/article_a9d5f43c-ae85-11e7-bc2a-4b674d746bfa.html
- Danziger, S., & Gottschalk, P. (1995). *America Unequal*. Cambridge, MA: Harvard University Press.
- Drabenstott, M., & Meeker, L. (1997). *Financing Rural America: A Conference Summary*. Kansas City, KS: Federal Reserve Bank of Kansas City. Retrieved from <https://www.kansascityfed.org/PfioZ/PUBLICAT/fra/fra97sum.pdf>
- Duggan, M., Kearney, M., & Rennane, S. (2016). The Supplemental Security Income Program. In R. Moffitt (Editor), *Economics of Means Tested Transfer Programs in the United States: Volume 2*. Chicago, IL: NBER and University of Chicago Press.
- Dyke, A., Heinrich, C., Mueser, P., Troske, K., & Jeon, K. (2006). The Effects of Welfare-to-Work Program Activities on Labor Market Outcomes. *Journal of Labor Economics*, 24(3), 567-608.

- Eberstadt, N. (2016). *Men Without Work: America's Invisible Crisis*. West Conshohocken, PA: Templeton Press.
- Edin, K., & Shaefer, L. (2015). *\$2 a Day: Living on Almost Nothing in America*. Boston, MA: Houghton Mifflin Harcourt.
- Edwards, A., McKenzie, B., & Short, K. (2014). *Work-related expenses in the Supplemental Poverty Measure*. Washington, DC: U.S. Census Bureau. Retrieved from <https://www.census.gov/content/dam/Census/library/working-papers/2014/demo/sgeworkexpense.pdf>
- Elango, S., Garcia, J., Heckman, J., & Hojman, A. (2016). Early Childhood Education. In R. Moffitt (Ed.), *Economics of Means Tested Transfer Programs in the United States: Volume 2* (235-297). Chicago, IL: NBER and University of Chicago Press.
- Federal Communications Commission. (2016). *2016 Broadband Progress Report*. Washington, DC: Federal Communications Commission. Retrieved from <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2016-broadband-progress-report>
- Glaeser, E. (2011). Measuring local poverty rates. In J. Ziliak (Ed.), *Cost of Living and the Supplemental Poverty Measure*. Submitted by the University of Kentucky Center for Poverty Research to the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. Retrieved from http://www.ukcpr.org/sites/www.ukcpr.org/files/documents/UKCPR_COL%26SPM_Forum_withAppendices%20%281%29.pdf
- Glaeser, E., & Gottlieb, J. (2008). The Economics of Place-Making Policies. *Brookings Papers on Economic Activity*, 1, 155-253.
- Green, G. (2017). The Opportunities and Limits of Economic Growth. In A. Tickamyer, J. Sherman, & J. Warlick (Eds.), *Rural poverty in the United States* (416-438). New York, NY: Columbia University Press.
- Greenstone, M., Hornbeck, R., & Moretti, M. (2010). Identifying Agglomeration Spillovers: Evidence from Winners and Losers of Large Plant Openings. *Journal of Political Economy*, 118(3), 536-598.
- Heckman, J., Lalonde, R., & Smith, J. (1999). The Economics and Econometrics of Active Labour Market Programs. In O. Ashenfelter and D. Card (Eds.), *Handbook of Labour Economics, Volume 3A* (1865-2095). Amsterdam and New York, NY: Elsevier.
- Hotz, J., Imbens, G., & Klerman, J. (2006). Evaluating the Differential Effects of Alternative Welfare-to-Work Training Components: A Reanalysis of the California GAIN Program. *Journal of Labor Economics*, 24(3), 521-566.
- Hsieh, C., & Moretti, E. (2017). Housing Constraints and Spatial Misallocation (Working Paper). Retrieved from <https://eml.berkeley.edu/~moretti/growth.pdf>
- Islam, T., Minier, J., & Ziliak, J. (2015). On Persistent Poverty in a Rich Nation. *Southern Economic Journal*, 81(3), 653-678.
- Jaffe, G. (1999, April 8). Program Pays Welfare Recipients to Move Away; Then What Happens? *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/SB923520095349248003>
- Jaffe, G. (1999, December 29). Moving Away to Find a Job Hurts Relocation-Assistance Recipients. *The Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/SB946423520184112284>
- Jespersen, S., Munch, J., & Skipper, L. (2008). Costs and benefits of Danish active labour market programmes. *Labour Economics*, 15(5), 859-884.

- Kahn, M. (2012). Cities, Economic Development, and the Role of Place-Based Policies: Prospects for Appalachia. In J. Ziliak (Ed.), *Appalachian Legacy: Economic Opportunity After the War on Poverty* (149-168). Washington, DC: Brookings Institution.
- Kearney, M., & Wilson, R. (2018). Male Earnings, Marriageable Men, and Non-Marital Fertility: Evidence from the Fracking Boom. *Review of Economics and Statistics*. https://doi.org/10.1162/REST_a_00739
- Kline, P., & Moretti, E. (2014a). Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority. *Quarterly Journal of Economics*, 129(1), 275-331.
- Kline, P., & Moretti, E. (2014b). People, Places, and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs. *Annual Review of Economics*, 6, 629-662.
- Kling, J., Liebman, J., & Katz, L. (2007). Experimental Analysis of Neighborhood Effects. *Econometrica*, 75(1), 83-119.
- Levin, B., & Matthey, C. (2017, February 13). *In infrastructure plan, a big opening for rural broadband*. Retrieved from <https://www.brookings.edu/blog/the-avenue/2017/02/13/in-infrastructure-plan-a-big-opening-for-rural-broadband/>
- Markley, D., Pages, E., Scruggs, P., & Miller, K. (2012). *Access to Capital in Rural America: Supporting Business Startup, Growth, and Job Creation in the Wake of the Great Recession*. Iowa City, IA: Rural Policy Research Institute. Retrieved from http://www.rupri.org/Forms/CapitalMarkets_Briefing_April2012.pdf
- Moretti, E. (2011). Real Wage Inequality. *American Economic Journal: Applied Economics*, 5(1), 65-103.
- Mueller, C. (1981). Migration of the unemployed: A relocation assistance program. *Monthly Labor Review*, 4, 62-64. Retrieved from <https://www.bls.gov/opub/mlr/1981/04/rpt3full.pdf>
- Nolan, L., Waldfogel, J., & Wimer, C. (2017). Long-Term Trends in Rural and Urban Poverty: New Insights Using a Historical Supplemental Poverty Measure. In D. Lichter and J. Ziliak (Eds.), *THE ANNALS: The New Rural-Urban Interface*, 123-142.
- Partridge, M. (2010). The dueling models: NEG vs amenity migration in explaining US engines of growth. *Papers in Regional Science*, 89(3), 513-536.
- Partridge, M., Rickman, D., Ali, K., & Olfert, M. (2008). Lost in Space: Population Dynamics in the American Hinterlands and Small Cities. *Journal of Economic Geography*, 8, 727-757.
- Paul, M., Darity, W., Hamilton, D., and Zaw, K. (2018). A Path to Ending Poverty by Way of Ending Unemployment: A Federal Jobs Guarantee. *The Russell Sage Foundation Journal of the Social Sciences*, 4, 64-83.
- Schultze, C. (1983). Industrial Policy: A Dissent. *The Brookings Review*, 2, 3-12.
- U.S. Census Bureau. (n.d.). *Annual Social and Economic Supplement (ASEC) of the Current Population Survey* [Data file]. Available from <https://www.census.gov/programs-surveys/saie/guidance/model-input-data/cpsasec.html>
- U.S. Department of Agriculture. (2018). *FY2019 Budget Summary*. Retrieved from <https://www.usda.gov/sites/default/files/documents/usda-fy19-budget-summary.pdf>
- U.S. Department of Agriculture, Economic Research Service. (2018). *Rural Poverty and Well-being*. Retrieved from <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/>

- Vance, J.D. (2016). *Hillbilly Elegy: A Memoir of a Family and Culture in Crisis*. New York, NY: HarperCollins Publishers.
- The White House. (2018, February 12). *Building a Stronger America: President Donald J. Trump's American Infrastructure Initiative*. Retrieved from <https://www.whitehouse.gov/briefings-statements/building-stronger-america-president-donald-j-trumps-american-infrastructure-initiative/>
- Wilson, W. (1987). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago, IL: University of Chicago Press.
- Ziliak, J. (2012). The Appalachian Regional Development Act and Economic Change. In J. Ziliak (Ed.), *Appalachian Legacy: Economic Opportunity After the War on Poverty* (19-44). Washington, DC: Brookings Institution.
- Ziliak, J. (2014). Supporting Low-Income Workers through Refundable Child-Care Credits. In M. Kearney and B. Harris (Eds.), *Policies to Address Poverty in America* (109-118). Washington, DC: The Hamilton Project, Brookings Institution.