UKCPR
University of Kentucky
Center for
Poverty Research

Discussion Paper Series
DP 2018-06

ISSN: 1936-9379

Economic change and the Social Safety Net: Are rural Americans still behind?

James P. Ziliak
Center for Poverty Research
Department of Economics
University of Kentucky

March 2018

Preferred citation
Ziliak, J. (2018, March). Economic change and the Social Safety Net: Are rural Americans still behind? *University of Kentucky Center for Poverty Research Discussion Paper Series, DP2018-06*. Retrieved [Date] from http://www.ukcpr.org/research/poverty-inequality/welfare-reform.

Author correspondence
James Ziliak, jziliak@uky.edu

Economic Change and the Social Safety Net: Are Rural Americans Still Behind?

James P. Ziliak*
Center for Poverty Research
Department of Economics
University of Kentucky
jziliak@uky.edu

March 21, 2018

Draft prepared for the conference
Rural Poverty: Fifty Years After *The People Left Behind*

* James P. Ziliak, University of Kentucky, Center for Poverty Research, 550 S. Limestone St., Lexington, KY 40506-0034. I am grateful for research assistance from Shiyu Cheng.

President Johnson's *War on Poverty* was a watershed moment in the history of social assistance in the United States that created scores of new programs, including the Food Stamp Program, Medicaid, Medicare, and Head Start, among others. Although the intent of these programs was to address poverty regardless of geographic residence, the hardship facing many rural Americans loomed large in his agenda, as witnessed by his visit to the remote community of Inez, Kentucky in April 1964 to announce his anti-poverty agenda, the fact that many of the new programs were rolled out first in high-poverty rural areas, and the 1965 passage of the Appalachian Regional Development Act—the largest place-based economic development program since the Tennessee Valley authority three decades earlier (Ginzberg and Solow 1974; Bradshaw 1992; Almond, Chay, and Greenstone 2007; Ludwig and Miller 2007; Hoynes and Schanzenbach 2009; Ziliak 2012). A year later, Johnson established the National Advisory Commission on Rural Poverty, charging them "To make a comprehensive study and appraisal of the current economic situations and trends in American rural life, as they relate to the existence of income and community problems of rural areas, including problems of low income, the status of rural labor,..." (Breathitt 1967, p. vi). The Commission's report, entitled *The People Left Behind*, included several recommendations for immediate action, ranging from a pledge of full employment to a right of a guaranteed minimum income, in order "to chart a course to wipe out rural poverty." (p. xi)

This aim of this paper is to assess the economic status of rural people five decades after *The People Left Behind*, with a particular focus on how changes in employment, wages, and the social safety net have influenced the evolution of poverty and inequality. The U.S. economy has been rocked by major business cycle and secular shocks that differentially affected the fortunes of urban and rural areas, from the oil price shocks of the 1970s to the deep recessions in the early

1980s and late 2000s to the infusion of high-tech capital that has displaced scores of workers from the farm, mine, and shop floor. Coinciding with, or in some cases in response to, these major macroeconomic developments has been the dramatic growth and transformation of the social safety net away from cash assistance and toward in-work credits, in-kind assistance for health and food, and disability for those unable to work. How the combination of cyclical, structural, demographic, and policy changes have interacted to at times exacerbate, and other times attenuate, well being across regions and over time is little studied compared to the much-larger literature on poverty and inequality over time but not rurality (Anderson 1964; Aaron 1967; Gottschalk and Danziger 1985; Blanchard and Katz 1992; Blank and Card 1993; Haveman and Schwabish 2000; Iceland 2003; Gundersen and Ziliak 2004).

The analysis here is descriptive, using individual- and family-level data from the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS) for calendar years 1967–2016, and county-level data from the Regional Economic Information System (REIS) produced by the Bureau of Economic Analysis for 1969-2016. The ASEC is the official source of government statistics on poverty and inequality, while the REIS is the primary source for tracking the spatial distribution of income and employment over time.

I begin with trends in family-level poverty rates by gender, education attainment of family head, and metropolitan status. I then unpack the poverty trends by first examining the demographic changes in metro and non-metro areas, notably in the age and education composition of the population, as well as marital status, followed by a look at the evolution of employment and wages (both levels and inequality). I then turn to a brief exposition of changes in the social safety net, highlighting the diffusion of transfers across counties in the U.S. since 1970, and then conclude with a discussion of changes in after-tax and transfer income inequality

across metropolitan areas. The analysis complements recent work by Lichter and Schafft (2016), Nolan, Waldfogel, and Wimer (2017), and Weber and Miller (2017), who have each written on the historical changes in rural and urban poverty, notably differing with my focus on employment and human capital, along with inequality.

Broadly, the results of this study suggest that the vision of shared prosperity embraced by the President's Commission on Rural Poverty has not been realized, and on some metrics, rural Americans are further behind their urban counterparts today than five decades ago. However, the tax and transfer system has stepped in to neutralize some of these economic developments and to alleviate hardship among rural families.

II. Stalled Progress against (Official) Poverty

The U.S. Census Bureau first operationalized its official measure of poverty in 1967, based on the research of the Social Security statistician Mollie Orshansky (1963). The poverty rate that was adopted is an absolute measure of economic well being, reflecting the percentage of the population that is poor. Specifically, given resources y and a poverty line z, a person is poor if $y \leq z$ and not poor otherwise. In this case poverty is a discrete state reflecting the fraction of persons who have not yet attained a minimal level of income to meet basic needs (Ziliak 2006).

Using data from the 1955 Household Food Consumption Survey, Orshansky found that the average family of three or more persons spent about one-third of their after-tax money income on food spending. This implies that after establishing the appropriate food budget one could use a multiplier of 3 to establish an income cutoff for minimally adequate needs. Initially there were 62 separate food plans based on family structure, age, gender of the head, and whether the family resided on a farm. Because it was assumed that farm families would grow and produce some of their own food, the poverty line was lower than for non-farm families. In

1980 the farm/nonfarm distinction, along with gender, were dropped, resulting in the 48 thresholds in use today (Fisher 1997). The poverty thresholds have been increased by the Consumer Price Index each year since 1969, holding constant (for inflation) the standard of living of the poor. In FY2017 the poverty line for a four-person family was $25,283.

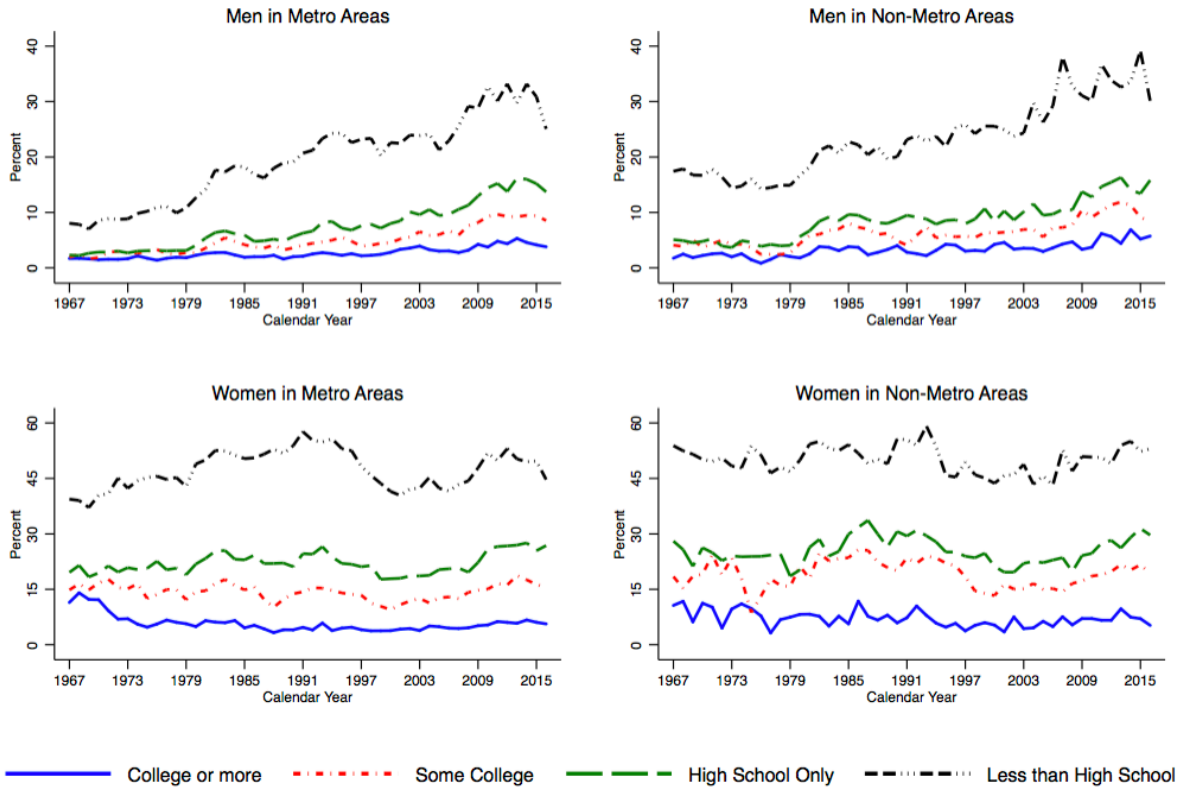
In terms of resources counted, the official U.S. measure only includes before-tax cash income such as earnings, rent/interest/dividends, royalties, income from estates and trusts, educational assistance, alimony, child support, and government transfers (retirement, disability, welfare, unemployment, veterans payments). It does not include in-kind transfers such as health insurance or food and housing assistance, nor are taxes deducted (or credits added). The family is the basic unit of analysis for poverty measurement, where family means two or more persons residing together and related by marriage, birth, or adoption. The income of all family members is summed to yield total family income for the year, and members of related subfamilies are assigned the family income of the primary family unit, and thus share the same poverty status.

Figure 1 presents trends in the official poverty rate from 1967-2016 using data from the ASEC. The sample is restricted to the civilian population between the ages of 25 and 64 to focus on those most likely to have completed formal schooling and prior to retirement since much of the subsequent analysis zeros on changes in the potential workforce. To highlight the heterogeneity in poverty across the population, the figure separates families depending on whether they are headed by a male or female, by one of four education levels, and by residency in a metropolitan or non-metropolitan area. I separate by gender of the family head because of large changes in marriage over the last 50 years (described below), and by education because of likewise very large changes in education attainment. 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. Additional detail on sample selection and variable definitions are in the Data Appendix.

There are several observations worth noting in the figure. First, with few exceptions, poverty rates among rural families exceeded urban families regardless of headship and education level at the time of *The People Left Behind*, and some of these gaps were very large (e.g. 10-20 percentage points among those heads with less than a high school degree). Within a decade, however, this gap had largely closed and poverty rates converged, mainly because of rising poverty in urban families. Second, regardless of region and gender of the family head, there are very large differences in poverty status based on the education attainment of the head, and this is most pronounced in comparing families whose head was a high school dropout versus those whose head was a graduate (but without any college). The gap of about 15 percentage points

Figure 1. Trends in Family Poverty Rates of Householders Ages 25-64 by Metropolitan Status, 1967-2016



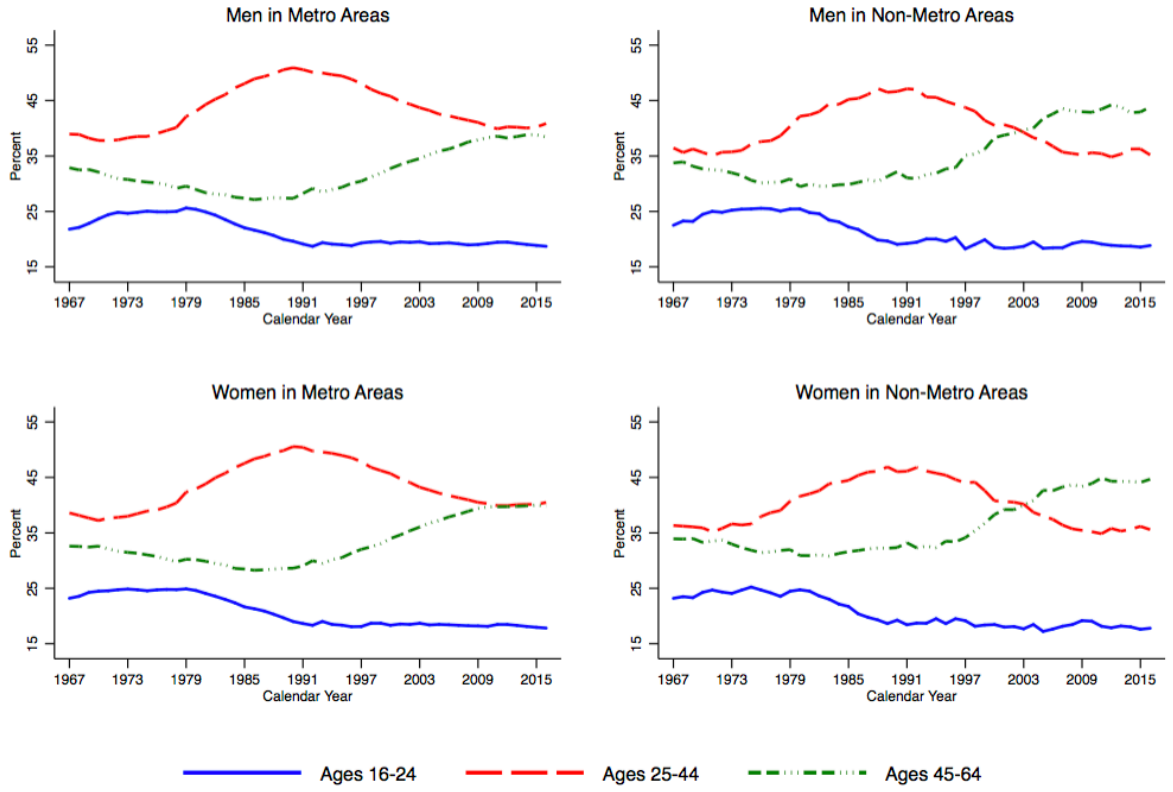
remained fairly stable over time. Third, poverty rates among female-headed families are a staggering two to three times greater than male-headed households, and for most education groups, the female-headed poverty rates have been relatively constant since the early 1970s. But in a remarkable development, there has been a convergence in male-female family poverty rates, not so much because of improved economic prospects of women, but more from declining economic status of male-headed families. In rural America poverty among male-headed families with less than high school doubled, while in urban America poverty nearly tripled. We also see sizable increases in poverty rates among male families with high school and even some college.

The Commission's goal to 'wipe out rural poverty' clearly has not been realized, and in fact, among the working-age population progress against official poverty has either stalled, or in the case of less-skilled men, fallen considerably behind. The next two sections will attempt to highlight the potential reasons for these developments, focusing first on changes in family structure, human capital, employment and earnings, and then on changes in the social safety net. The latter could be potentially important because policy developments over the past 20 years that favor in-kind transfers over cash assistance that are omitted from the official measure may lead to different conclusions on the well-being of rural families (Nolan et al. 2017).

III. Rising Human Capital, Falling Employment, and Stagnant Earnings

National income accounts show that about 80 percent of income is in the form of labor-market earnings, and because older persons are less likely to work, and thus at greater risk of poverty, one potential explanation for stalled progress against poverty is a changing age composition of the workforce population. Figure 2 presents trends in the share of the population in three age groups: 16-24 year olds, 25-44 year olds, and 45-64 year olds. The youngest group captures the size of the potential population entering the labor force, and here there is little difference

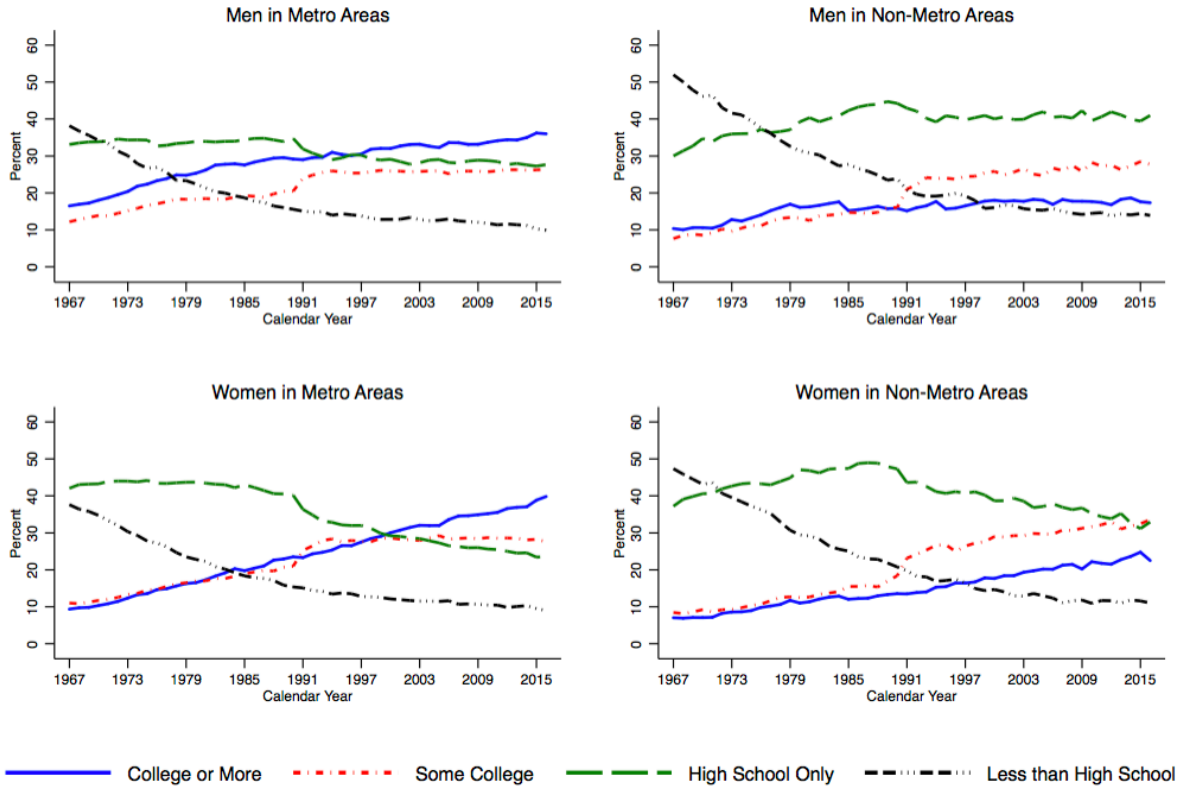
Figure 2. Trends in Age Composition of Non-Senior Civilian Population by Metropolitan Status, 1967-2016



between metro and non-metro areas, or by gender. The early years reflect the coming of age of the Baby Boom generation, but since 1991 the youngest group has held steady at roughly 20 percent of the population. That same year coincided with the peak Baby Boom cohort in the prime working years of 25-44, and since that peak all growth in the older group has come at the expense of the middle age adult population. Around 2003, the older adult population surpassed the middle group as the largest share in rural areas, and in this respect non-metro America is aging faster than metro America.

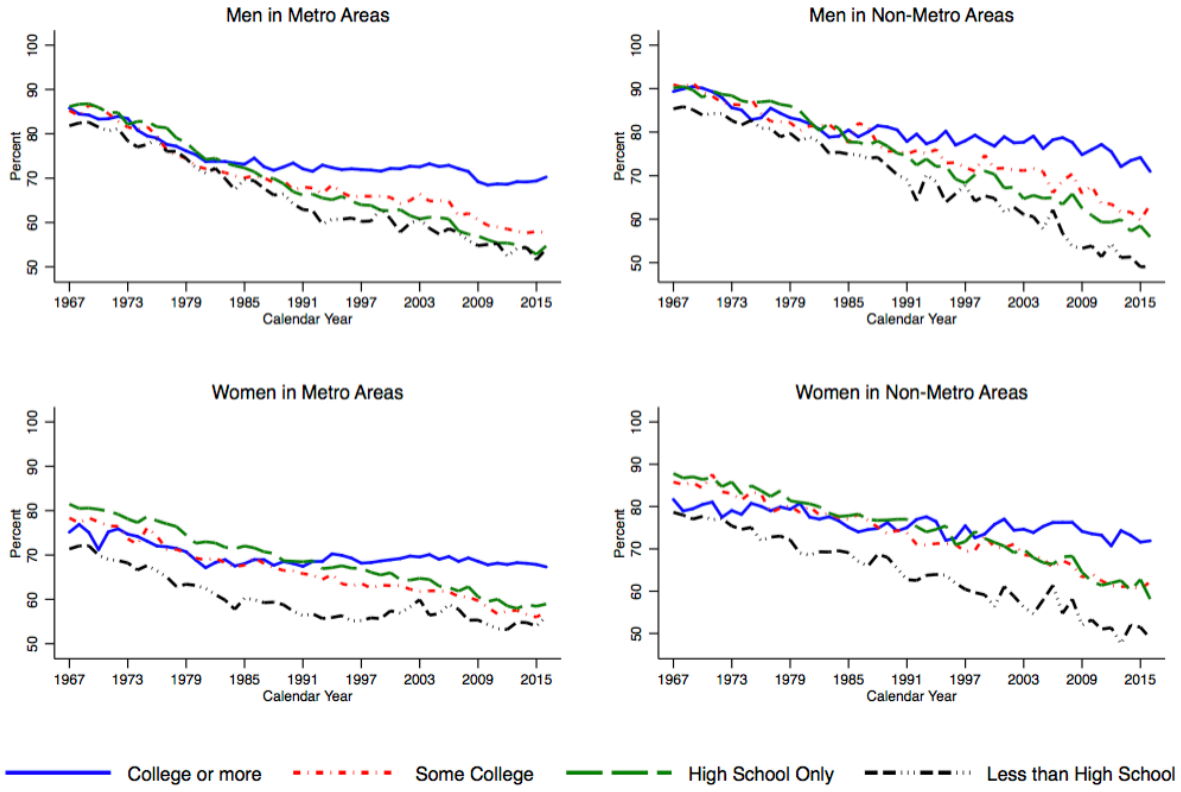
Figure 1 showed that the economic status of those with a high school education or less has deteriorated over the last fifty years, but one potential salve on that development would be if those persons with high school or less are a declining share of the population. Human capital is strongly correlated with income, and indeed, the evidence points squarely at a causal pathway

Figure 3. Trends in Education Attainment for Men and Women Ages 25-64 by Metropolitan Status, 1967-2016



between education and earnings (Card 1999). However, Figure 3 highlights an important divergence between urban and rural areas on skill attainment. In rural places the fraction of men with college or more has not budged since the mid 1980s, being stuck at about 15 percent, and the gap with urban men increased from about 5 percentage points to about 20 percentage points. Moreover, the share of rural men who are high school dropouts, high school graduates, or with some college has not changed substantively since the mid 1990s. Women in rural areas steadily increased their rates of college attainment over the decades, but the growth was much more slow than among urban women, and thus while they started out at similar levels, 50 years later rural women had rates of college completion of about half that of urban women (though rural women now have a greater fraction of the population with some college).

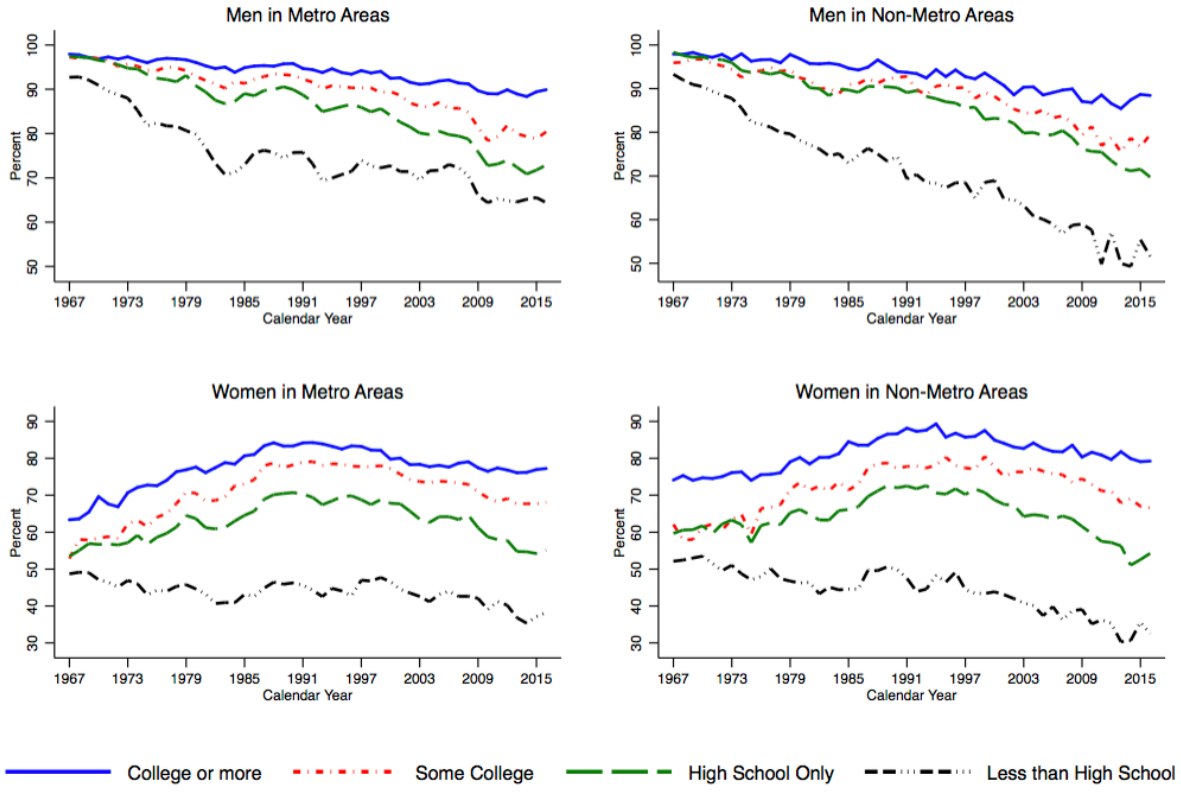
Figure 4. Trends in Marriage Rates of Men and Women Ages 25-64 by Metropolitan Status, 1967-2016



Another strong correlate with family income and poverty status is marriage. Figure 4 shows that there has been a retreat from marriage in the U.S., and that retreat is greatest among those persons with the least skills and among rural families. In 1967 there was little difference in marriage rates of men across education groups, with rates of 85-90 percent. Starting in the mid 1980s, however, a chasm erupted between men with a college degree and those without in terms of percent married such that by 2016 marriage had fallen over 30 percentage points among rural high school dropout men to a level 25 percentage points lower than college-educated rural men. The trends in urban America were similar, but the declines more muted. Interestingly, marriage rates among rural men and women with high school or more were as high or higher than among urban men and women, even though the former had a greater proportionate decline over time.

Not only are Americans retreating from marriage, they are also retreating from work, again especially less skilled men (Eberstadt 2016). Figure 5 presents trends in the share of 25-64

Figure 5. Trends in Employment Rates of Men and Women Ages 25-64 by Metropolitan Status, 1967-2016



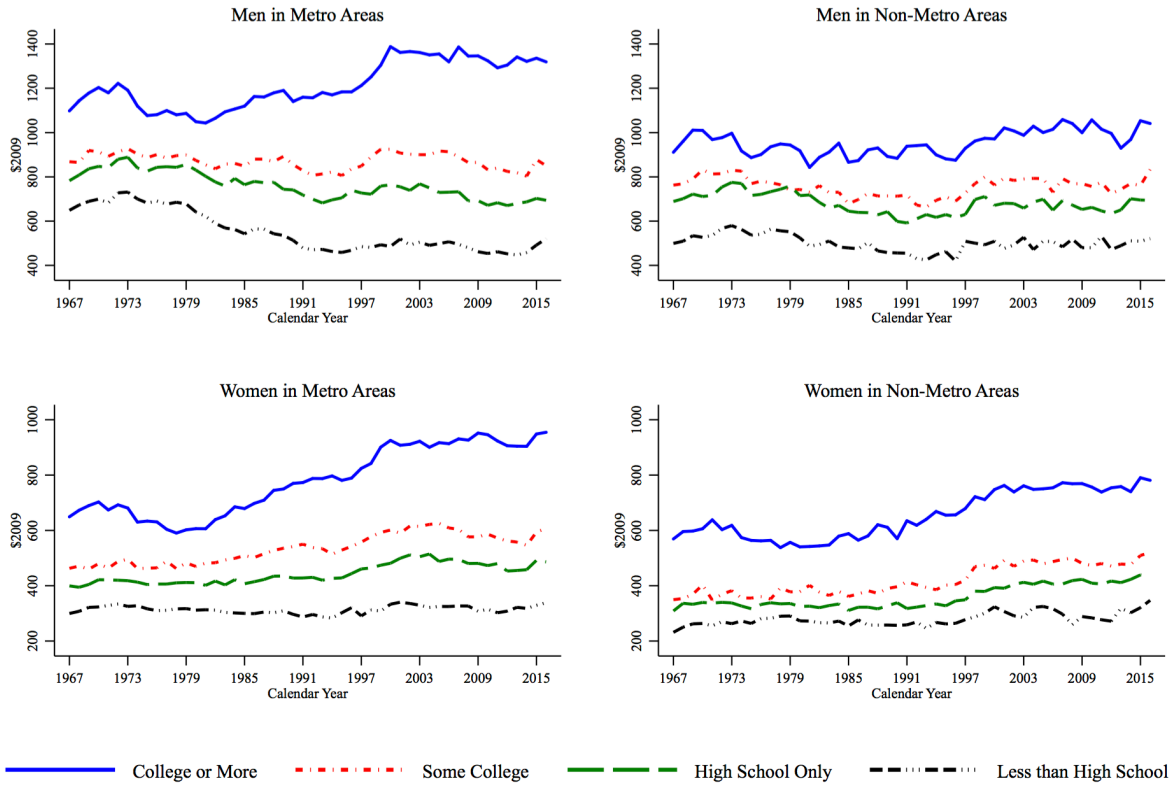
year olds who worked for pay at any time in the year. In the 1960s, nearly every man regardless of educational background worked, but this strong tie to the labor market with less than a high school education was severed in the early 1970s and continued its march down unimpeded. There was no gap among this population in urban and rural areas at the start of the period, but by 2016 only 1 in 2 less skilled men in rural America worked, which was 15 percentage points lower than in metro areas. While employment rates fell for men with a high school diploma or more over the period, there was no comparable rural-urban gap, and if anything, by 2016 employment rates are higher in rural areas. Women's employment rates, in particular for those with high school or more, track closely the inverted U-shape of the population share of 25-64

year olds depicted in Figure 2, first rising to the mid 1990s, and then steadily declining. Interestingly, there is little difference in employment levels and trends for rural and urban women, with the possible exception for those without a high school diploma.

Whether and how the decline in employment affects the wages of workers is not obvious a priori. The withdrawal from work could be a result of declining wage levels and opportunities for growth, but if the least productive workers are the most likely to withdraw from employment then it is possible that wages for those remaining in work could increase over time. Figure 6, which shows trends in inflation-adjusted median weekly earnings among workers, suggests that the former might be the dominant force in driving trends in employment of men, while the latter might be a factor among women. The figure shows that for both rural and urban men with some college or less real weekly wages peaked on the cusp of the first oil crisis in 1973, and then fell sharply over the next two decades, especially for men with only high school or less. There was a slight rebound with the strong expansion in the late 1990s, but with the possible exception for those with some college, it was not sufficient enough to lift the wages of less skilled men to pre-oil crisis levels.

Research on wage inequality has generally emphasized skill-biased technical change that favors college educated (Bound and Johnson, 1992; Juhn, Murphy, and Pierce; Autor, Katz, and Kearney 2008), but most of the rising return-to-skill among men has occurred in urban areas as real weekly earnings of college educated men in rural America have been stuck at about $1,000 for five decades. Even among college-educated men in metro areas, earnings gains stalled after 1999. Moreover, the urban wage premium, which partly arises due to differences in cost-of-living (Moretti 2011), apparently only bites for those with college degrees as the earnings of

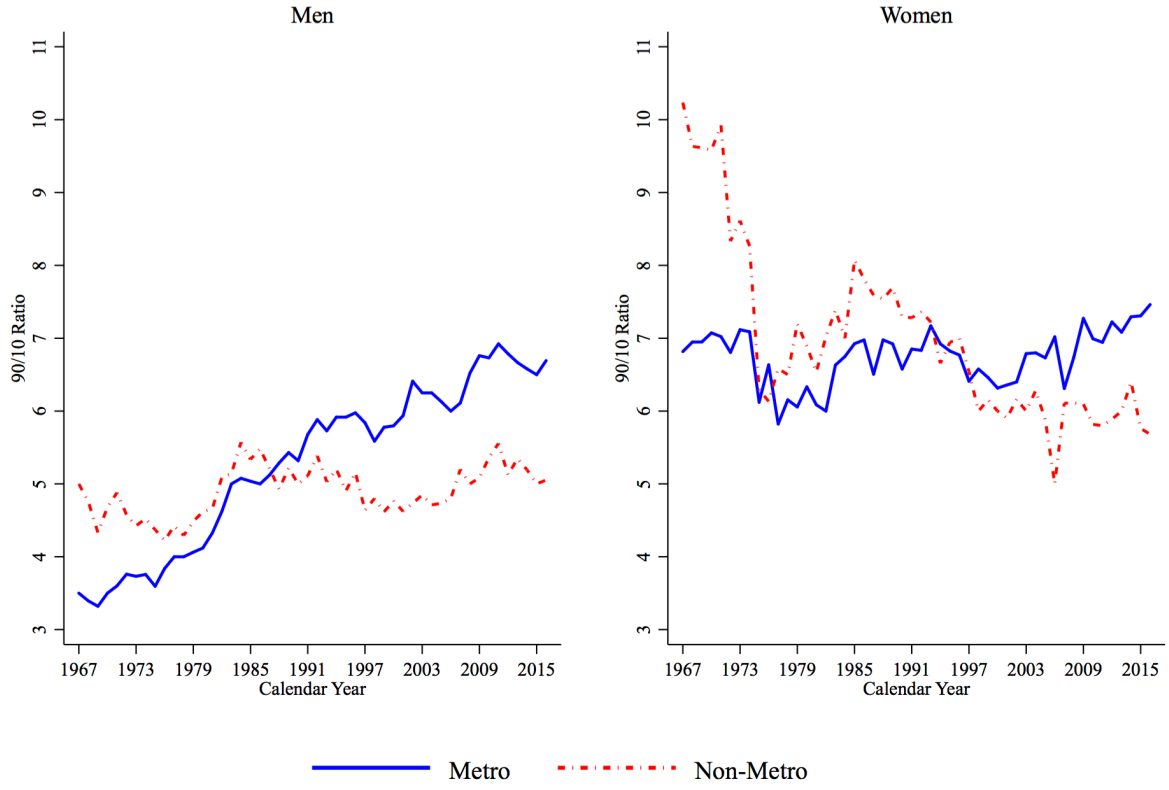
Figure 6. Trends in Median Real Weekly Earnings of Workers Ages 25-64 by Metropolitan Status, 1967-2016



urban men with fewer skills differs little from those living in rural areas (Bollinger, Ziliak, and Troske, 2011). The story for women is a bit more rosy, as real weekly earnings increased for all groups and regions except for the least skilled. In addition, the urban wage premium seems to cut across most of the female skill distribution, but similar to men, there is no difference in weekly pay for urban and rural women lacking high school credentials.

Figure 7 offers a portrait of the evolution of earnings inequality among men and women in metro and non-metro areas, depicting the ratio of the 90th to 10th percentile. I collapse the data across education groups within gender and region in order to get a summative inequality series. The figure makes clear that the much-discussed rise in earnings inequality is mostly an issue

Figure 7. Trends in 90/10 Real Weekly Earnings Inequality of Workers Ages 25-64, 1967-2016



facing men in urban America. At the start of the period, inequality was higher in rural areas, but the 90/10 ratio among urban men doubled over the last 50 years, whereas for rural men, while it rose sharply in the early 1980s, it retreated in the late 1990s and thus exhibits little secular trend. For urban women, 90/10 inequality is largely unchanged, and among rural women, inequality actually declined over the period from being higher than among urban women to being lower.

IV. The Rising Importance of Social Assistance in Rural America

The social safety net in the U.S. is vast, surpassing well over $2 trillion in annual spending in recent years, and on a per capita basis, has grown dramatically in real terms by more than a factor of four since 1970 (Moffitt 2013). The programs are typically grouped into the two broad categories of social insurance and means tested transfers. Social insurance programs are tied to employment, military service, or old age, while means tested transfers are conditioned on low

income, and often low assets, but typically not employment or age. Included in the former are Social Security Retirement and Survivors Benefits, Disability Insurance (DI), Medicare, Unemployment Insurance (UI), Veterans Benefits, and Workers Compensation. Among the latter are Medicaid, Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), housing assistance, the Supplemental Nutrition Assistance Program (SNAP), National School Breakfast and Lunch Programs, and the Special Supplemental Nutrition Assistance Program for Women, Infants, and Children (WIC). The other key means-tested programs that are

Table 1. Trends in Real ($2010) Spending on Selected Social Insurance and Means Tested Transfer Programs

	1970	1980	1990	2000	2010
OASI	66.5	243.5	336.3	429.6	522.9
Medicare	17.4	85.3	167.4	270.1	508.9
Disability Insurance	7.2	35.9	37.4	66.9	124.2
Workers Compensation	7.0	31.5	57.6	58.1	58.2
Unemployment Insurance	8.8	37.3	27.6	25.5	138.6
Veterans Benefits	4.9	34.1	26.7	30.4	51.4
Medicaid	11.1	54.0	97.9	205.1	338.8
Supplemental Security Income		17.8	24.3	37.4	48.2
AFDC/TANF	11.6	31.0	33.3	34.5	35.8
Food Stamps (SNAP)	1.4	21.3	23.2	20.8	68.3
Housing Assistance	1.6	21.1	27.3	39.8	42.2
Earned Income Tax Credit		4.4	11.3	39.3	60.9

Note: Expenditures are in 2010 dollars based on the personal consumption expenditure deflator.
Sources: 2013 Annual Statistical Supplement to the Social Security Bulletin (OASI and DI from Table 7.A.4; Medicare is the sum of Table 8.A.1 & 8.A.2; Medicaid from Table 8.E2 (1980 value from the 2000 supplement and 1970 value from https://www.gpo.gov/fdsys/pkg/GPO-CPRT-104WPRT23609/pdf/GPO-CPRT-104WPRT23609-2-16.pdf); SSI from Table 7.A.4; Workers Compensation from Table 9.B1); UI data includes extended benefits and was obtained from https://workforcesecurity.doleta.gov/unemploy/Chartbook/b1.asp (1970 value from 1970 from Table 534 of https://www2.census.gov/library/publications/1980/compendia/statab/101ed/1980-05.pdf) ; Veterans Benefits for 1970,1980 from Table 518 at https://www.census.gov/prod/2002pubs/01statab/socinsur.pdf; Veterans Benefits for 1990, 2000, 2009 from Table 540 at https://www.census.gov/compendia/statab/2012/tables/12s0540.pdf ; AFDC for 1970,1980 from Table 8-22 of 1996 Green Book at http://www.gpo.gov/fdsys/pkg/GPO-CPRT-104WPRT23609/pdf/GPO-CPRT-104WPRT23609-2-8.pdf ; AFDC for 1990 and TANF for 2000 and 2010 from Table 7-2 of 2012 Green Book at http://greenbook.waysandmeans.house.gov/sites/greenbook.waysandmeans.house.gov/files/2012/documents/Table%207-2%20TANF_0.pdf ; Food Stamps/SNAP from http://www.fns.usda.gov/pd/SNAPsummary.htm; Housing Assistance for 1980, 1990, 2000 from Table 15.2 from http://democrats.waysandmeans.house.gov/sites/democrats.waysandmeans.house.gov/files/documents/hap.pdf; Housing for 1970 from Table 531 of https://www2.census.gov/library/publications/1980/compendia/statab/101ed/1980-05.pdf; Housing Assistance for 2011 from Table A.1 of http://greenbook.waysandmeans.house.gov/sites/greenbook.waysandmeans.house.gov/files/2012/documents/RL41823_gb.pdf ;EITC from http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?DocID=37&Topic2id=30&Topic3id=39

directly tied to employment are the Earned Income Tax Credit (EITC) and the Additional Child Tax Credit (ACTC).

Table 1 presents spending on the major social insurance and means-tested transfer programs from 1970-2010, expressed in real 2010 dollars using the Personal Consumption Expenditure Deflator. (SSI did not begin until 1972 and the EITC in 1975). The table highlights the spectacular growth in some of the programs. For example, from 1970-2010 food stamp spending increased nearly 4800 percent, Medicaid and Medicare over 2800 percent, housing assistance over 2500 percent, DI over 1600 percent, and Social Security nearly 700 percent. The only program exhibiting minimal change in expenditure, at least from 1980 onward, is AFDC/TANF.

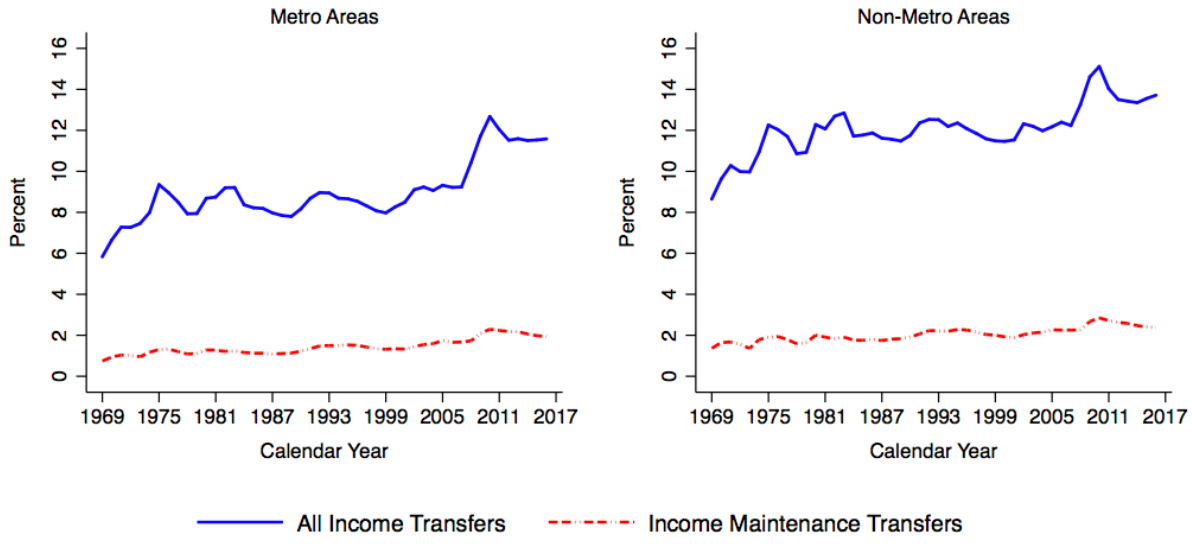
The specific reasons for the growth in safety net spending vary by program, but generally involve some combination of changing demographics, business cycles, and direct policy reforms (Moffitt and Scholz 2010; Ziliak 2015). For example, as countercyclical programs, UI and food stamps/SNAP surge during economic downturns as workers lose jobs and need assistance, and the Great Recession of 2007-09 accounts for the large outlays in UI and most (but not all) of the SNAP growth (Ganong and Liebman 2013; Ziliak 2015). The aging of the U.S. population is the primary fuel driving growth in Social Security, Medicare, and Medicaid, while the secular decline in employment and increases in the eligible population account for the growth of DI (Autor and Duggan 2006). And for other programs, namely, EITC, SSI, and AFDC/TANF, underwent significant policy reforms. After its introduction in 1975, the EITC was greatly expanded with the tax legislation of 1986, 1990, 1993, and 2009. The 1996 Welfare Reform Act eliminated the AFDC program, which was an automatic stabilizer akin to food stamps, and replaced it with TANF, which is a fixed (in nominal terms) block grant but with spending that

keeps up with inflation largely from state contributions. SSI experienced growth in the wake of welfare reform, as well as after the Supreme Court issued its 1991 *Zebley Decision* that greatly expanded child access to SSI (Kubik 1999; Schmidt and Sevak 2004).

None of these programs are specifically targeted at rural or urban residents, rather they are intended to cut across the population. However, as demonstrated in the prior figures, the developments over the past 50 years in population aging, education, work, and wages have not been uniform across regions and thus we might expect the impact of the safety net to vary. For my initial examination of this link I turn to the county-level REIS data, which records income received by residents of a county, or in the case of wages and salaries, earned by place of work in a county by residents and non-residents. The public versions of the ASEC do not record county of residence, and thus the REIS permits an examination of the spatial distribution of transfers at finer geographic detail.

I first begin in Figure 8 with two time-series from the REIS aggregated to the metro- and

Figure 8. Trends in Share of Income Transfers as a Fraction of Personal Income by Metropolitan Status, 1969-2016



non-metro level depicting the share of county personal income received in the form of all transfers, and those transfers specifically classified as income maintenance. Total transfers refer to all cash transfers received by individuals such as Social Security retirement and disability (DI), welfare (AFDC/TANF, food stamps/SNAP, SSI, EITC, general assistance), unemployment compensation, veteran's benefits, and education assistance, but does not include in-kind transfers from Medicaid, Medicare, and military health insurance. Income maintenance refers to the group of welfare payments alone.

Over the 1969-2016 sample period, non-metro counties averaged 35 percent more of their income in the form of total transfers than metro counties, and 45 percent higher share of income maintenance. However, as Figure 8 shows, that gap started out wide and progressively narrowed over time as metro counties caught up. In 1969, 8.6 (1.4) percent of rural county resident's income was from all transfers (income maintenance), while 5.8 (0.75) percent of urban resident's income was from those same transfers. By 2016, those ratios were 13.7 (2.4) and 11.6 (1.9) percent for rural and urban counties, respectively. The social safety net is rising in importance for both rural and urban residents, and even though the rate of growth was faster in urban areas, rural residents are still receiving 20 percent more of their income from transfers than urban residents.

The next four figures present county-level maps of the continental U.S. containing the transfer shares for 1970 and 2015 to highlight the spatial evolution of safety-net growth, with Figures 9 and 10 depicting the share of income from all transfers, and Figures 11 and 12 the share of income from income maintenance transfers. In the figures, the darker the shade, the greater the share of income from transfers, where in each figure the first group is up to the 5^{th} percentile, the second group the 5^{th}-50^{th} percentiles, the third group the 50^{th}-95^{th} percentiles, and

finally the top 5 percentiles. In Figure 9 we see that in 1970 the typical county with more than 6.5 percent of income in the form of transfers was rural, and some areas already had high concentrations, namely central Appalachia, the Mississippi Delta region, and some Native

Figure 9: Share of County Income from All Income Transfers in 1970

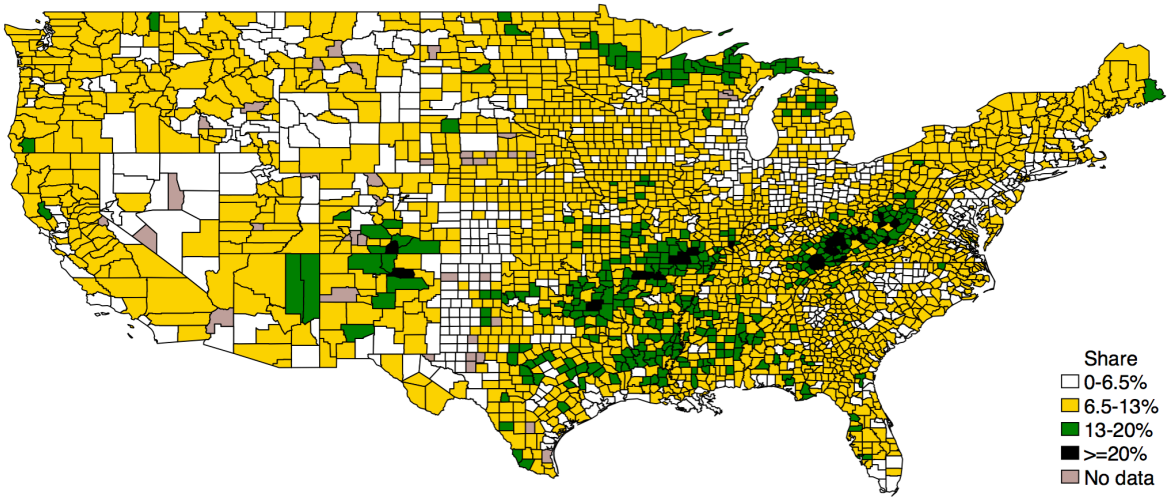
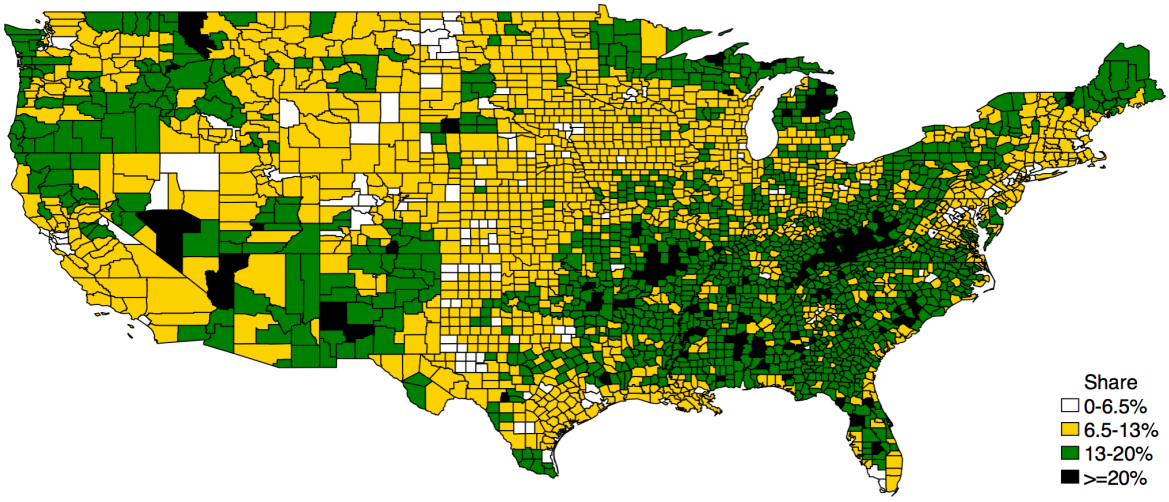


Figure 10: Share of County Income from All Income Transfers in 2015



American counties in the Mountain West. These areas are historically classified as "persistently poor" using the USDA definition (Islam, Minier, and Ziliak 2015; Weber and Miller 2017).

Figure 10 shows that over the next 45 years 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, in excess of 1 in 5 dollars, continue to be found in rural areas, and in particular those areas most associated with persistent

Figure 11: Share of County Income from Income Maintenance Transfers in 1970

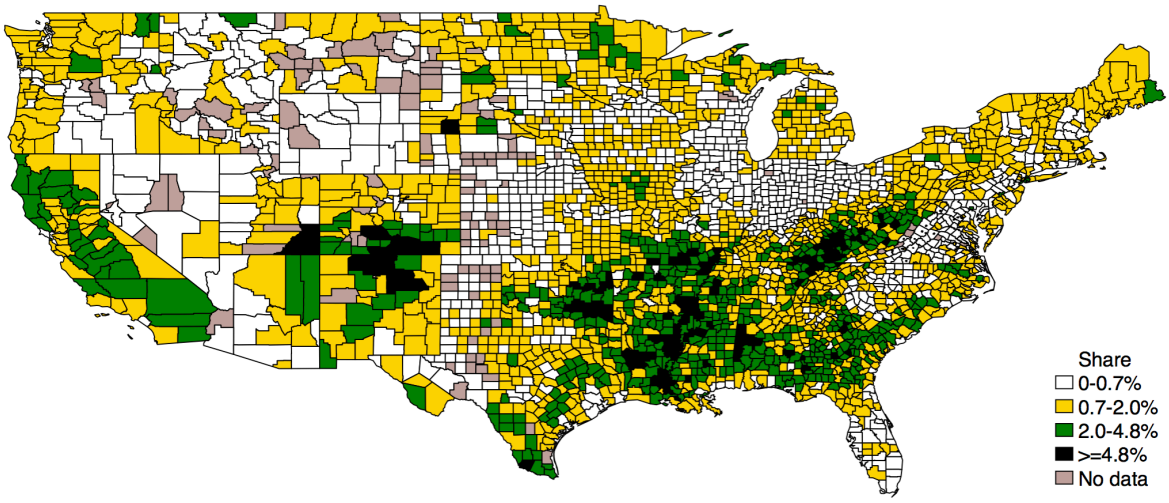
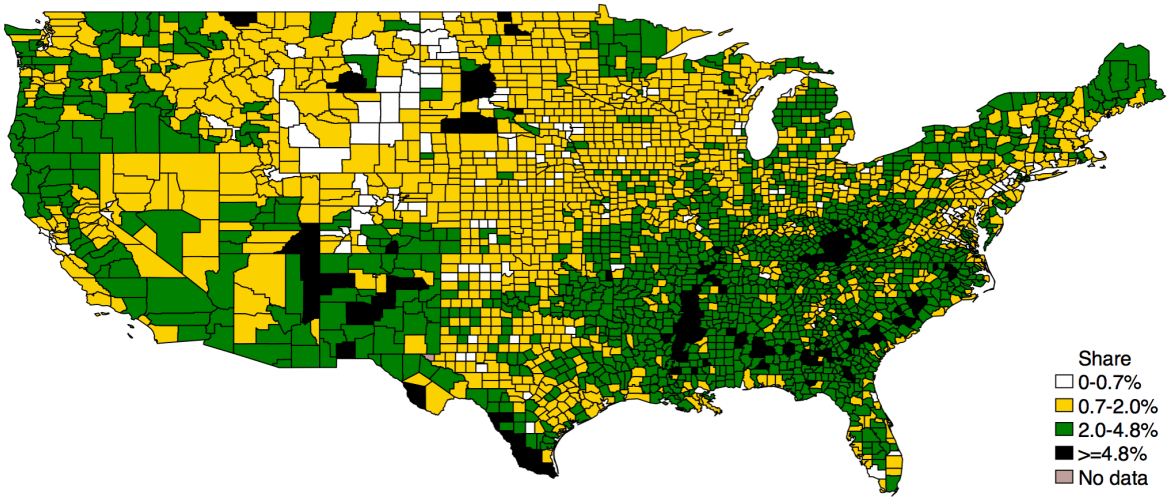


Figure 12: Share of County Income from Income Maintenance Transfers in 2015



poverty. This also holds in Figures 11 and 12 for income maintenance transfers, where the isolation of the five persistently poor regions (the three mentioned plus the 'Black Belt' region in the Carolinas to Alabama, and the Texas border counties) is even more pronounced.

The latter two figures use total personal income from all sources as the denominator, but an alternative way to depict a county's reliance on transfers is as a fraction of wage-earning

Figure 13: Ratio of County Income Maintenance Transfers to Wage Earnings in 1970

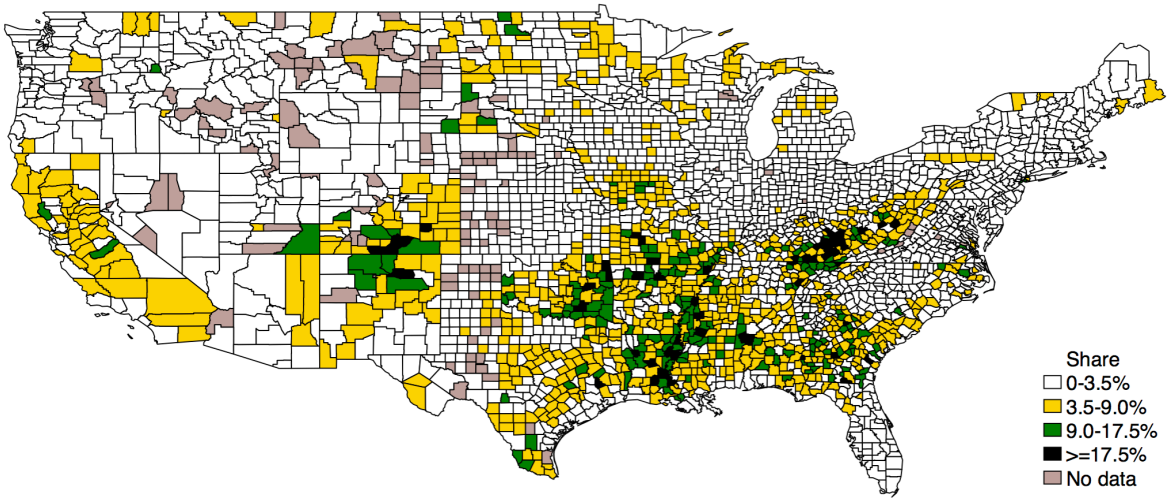
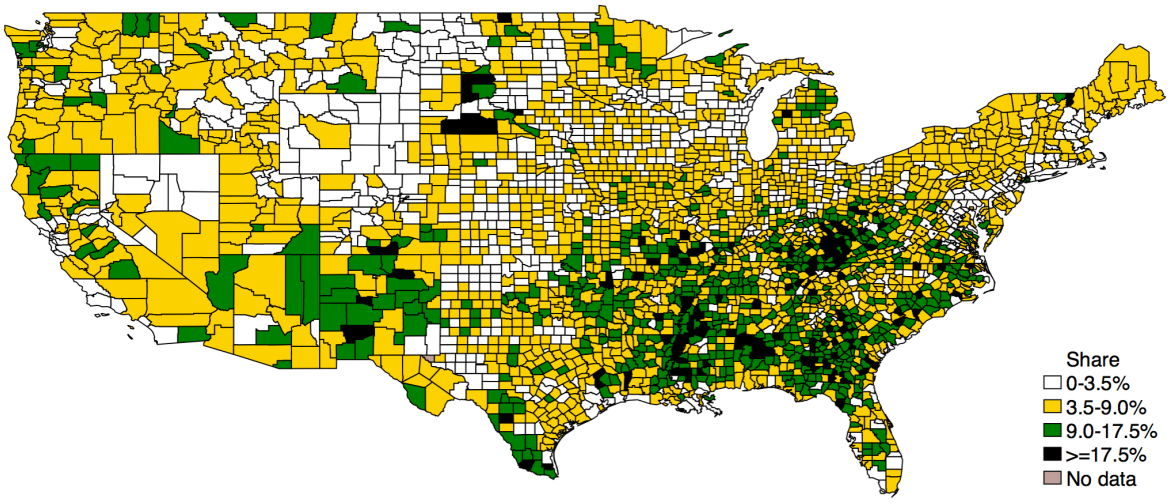


Figure 14: Ratio of County Income Maintenance Transfers to Wage Earnings in 2015



potential; that is, a measure of an average wage replacement rate. Figures 13 and 14 reproduce the income maintenance figures as a share of wage earnings in the county, where the denominator is based on wages from the place of work, meaning that it contains wages of those who reside in the county as well as commuter workers into the county. This broader definition better captures wage potential in a county than wages from residents alone. Figure 13 suggests that in 1970 the five persistently poor regions and parts of the central valley of California were already heavily income-maintenance transfer reliant (shares ≥ 9%). By 2015, however, the economic dislocation of the past five decades spread throughout much of the rural South and Southwest, but also to the fishing, forestry, and mining dependent counties in upper New England, the Pacific Northwest, and upper Midwest.

V. Progress against (Unofficial) Poverty

Fifty years ago the Commission stated that "Rural poverty in the United States has no geographic boundaries. It is acute in the South, but it is present and serious in the East, the West, and the North." (Breathitt 1967, pp. ix-x). Figures 13 and 14 underscore that based on the metric of transfers as a share of wage income, this assessment appears to still be true today. However, perhaps the more accurate assessment is that the safety net has stepped in to fill the gap where the private sector economy has failed, and without the expansion of social assistance programs, material hardship in rural America would indeed be much worse today than 50 years ago.

To examine this possibility, I return to data from the ASEC in Figure 15 where I estimate the fraction of families lifted out of market poverty by the tax and transfer system. Specifically, for each of the four education groups by gender and metropolitan status, I first construct the percentage of families in poverty based on private income alone (e.g. earnings, rent, interest, dividends, private pensions) and the Orshansky thresholds. I then re-estimate poverty based on

an after-tax and transfer measure of net income, defined as market income plus government cash transfers plus food stamps and less federal, state, and payroll tax payments (inclusive of the refundable EITC and ACTC, meaning federal and state taxes may be negative and thus increase net income). I then compute the percentage of families who are market-income poor but not poor

Figure 15. Percent of Householders Ages 25-64 Lifted out of Market Poverty by Metropolitan Status, 1979-2015

based on net income. As described in the Appendix, data restrictions limit the sample period for this analysis to the 1979-2015 calendar years.

Figure 15 shows that for most subsamples and years the safety net, broadly defined, lifts more families in non-metro areas out of market poverty than similarly situated families in metro areas. The trend post-1980 has generally been to lift more out of poverty, especially among families headed by men. For example, in 1979 the safety net lifted about 10 percent of less-skilled rural male families out of market poverty, and that fraction doubled to 20 percent in 2015,

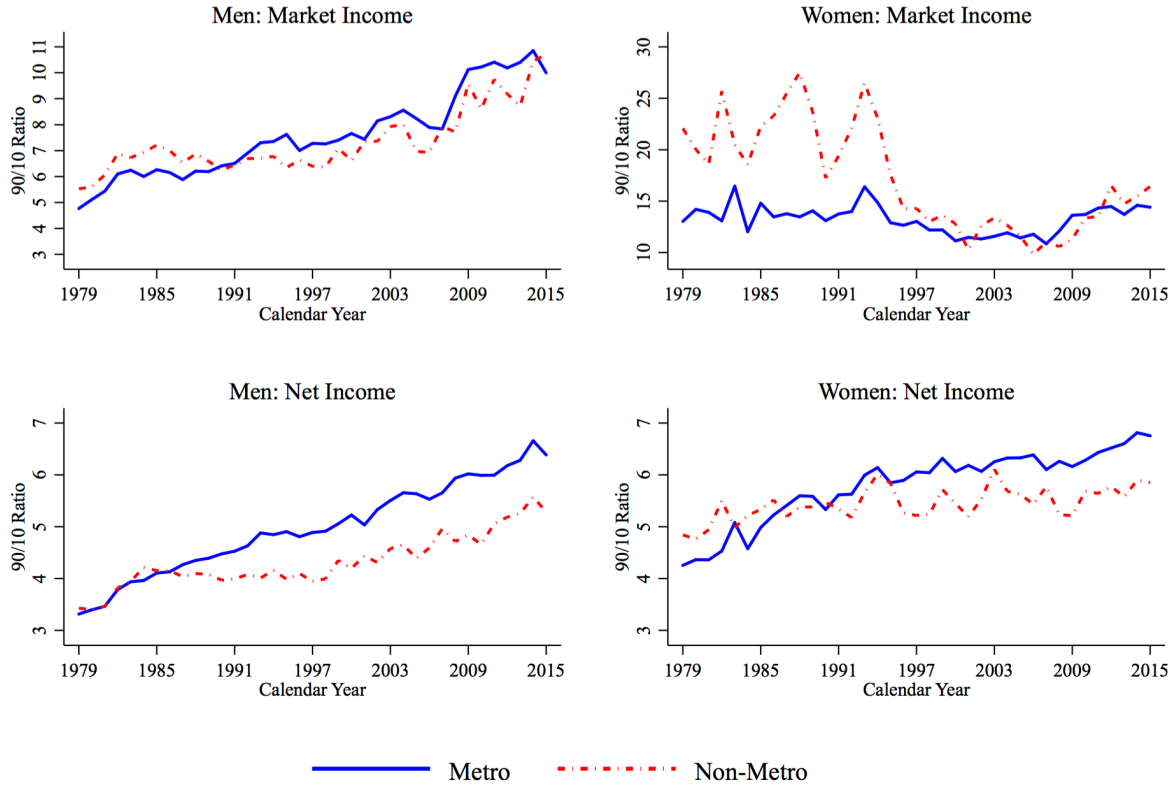
and these rates are on average about 3 percentage points higher than among urban men and increasing over time. There was a more than doubling of families lifted out of market poverty over the sample period for men with high school and some college across regions, but there was still a larger fraction lifted in rural areas. For families headed by a woman, the largest rural-urban anti-poverty differential from the safety net is among those with high school or some college, reflecting that these medium-skilled women in rural areas likely have comparatively lower earnings and thus are benefiting more from both food stamps and refundable credits.

That the safety net is differentially benefitting rural families is consistent with the careful analysis of Nolan et al. (2017). They construct the experimental Supplemental Poverty Measure (SPM), where they define resources similar to my construction of net income, but in lieu of the Orshansky thresholds, they use the updated SPM thresholds based on contemporaneous spending on food, clothing, shelter, utilities, and miscellaneous necessary expenses, and also with a geographic adjustment for differences in cost-of-living. They find that in the early 1990s, overall SPM rural poverty "crossed" SPM urban poverty and has been lower in each period thereafter. While there is convergence between rural and urban poverty, the crossing only occurs after the thresholds are geographically adjusted.

The efficacy of the safety net in alleviating rural hardship is further underscored in Figure 16, which depicts trends in 90/10 inequality in family market and net income by gender. Unlike Figure 7, which is individual-level weekly earnings inequality, Figure 16 applies to the tax unit, with the upper panel encompassing private income sources measured in the ASEC, and the bottom panel after-tax and transfer incomes. These are the same income constructs as used in Figure 15. Note, however, in the upper panel there are different scales used for men and women because of very high 90/10 market income inequality, even after requiring market income to be

positive. The key takeaways of Figure 16 are that (a) women have much higher market inequality than male-headed families, but are quite similar after accounting for the tax and transfer system, and (b) both rural men and women differentially benefit from the tax and transfer system in

Figure 16. Trends in 90/10 Market and Net Income Inequality for Householders Ages 25-64, 1979-2015



redistributing income. Among men, market income inequality in non-metro areas tracks metro inequality quite closely (unlike individual earnings inequality in Figure 7), but starting in the mid 1980s (coinciding with the 1986 tax reform and first expansion of the EITC, as well as expansions in disability), net-income inequality in rural areas is much more attenuated. For women, the tax and transfer systems generate a large shift downward in inequality across regions, but this equalizing effect is more pronounced among rural women.

VI. Conclusion

President Johnson's National Advisory Commission on Rural Poverty espoused the laudable goal of "wiping out rural poverty", but the evidence presented here suggests that fifty years later the dream remains elusive. Large numbers of rural Americans are disengaged from the labor market, gains in human capital attainment have stagnated, and the retreat from marriage continues for the medium- and less-skilled individuals. Work, education, and marriage are the three main pathways out of poverty for most Americans, whether residing in urban or rural locales, and thus making progress against poverty faces major economic and demographic headwinds.

The evidence presented here adds to the literature showing that in the absence of the expanding safety net, economic hardship would have been much worse. While concerns that the structure of the safety net creates disincentives to work, gain an education, and marry are justified, scores of papers by economists, sociologists, and other social scientists consistently provide evidence that these disincentive effects are small in magnitude, and thus reliance on assistance programs is a consequence, and not a cause, of the poverty witnessed in recent decades (Danziger, Haveman, and Plotnick 1981; Moffitt 1992; Bitler and Hoynes 2016). The Commission expressed frustration that the efforts at the time were largely directed at urban poverty. However, in the intervening decades the boundaries have been blurred between urban and rural places when it comes to major tax and transfer programs, and in fact rural people have differentially gained from these programs with larger shares lifted out of market-income poverty and with lower after-tax and transfer inequality compared to their urban counterparts.

Going forward, however, the more substantive withdrawal from employment among the rural poor could ultimately lead to less assistance from the safety net as policymakers continue to

remake the programs to favor those in-work versus those out-of-work. The ascendance of the EITC in the early 1990s, coupled with the 1996 welfare reform, were the first major steps in this direction, requiring work to qualify for the EITC, and for those on TANF requiring most adult recipients to engage in work and to limit the amount of time on aid. The 1996 legislation expanded work requirements to able-bodied adults without dependents between the ages of 18 and 49 to qualify for food stamps—these so-called ABAWDS must work at least 20 hours per week, or else only qualify for 3 months of stamps out of every 36-month period. The state of Wisconsin is proposing to increase the ABAWD work requirement to 30 hours per week, and to also extend it to parents whose youngest child is age 6 or older. Kentucky is introducing a similar work requirement for ABAWDS receiving Medicaid, and there is legislation in Congress to make many of similar work requirements ubiquitous for social assistance.

The problem with work requirements is they are based on the premise that work (or now full-time work) is readily available for those willing and able. However, it is a blunt policy instrument because the demand for labor is lacking in many rural communities, especially those most distant from urban centers. This suggests that a more robust economic policy that facilitates access to work, including direct place-based employment programs (Kahn 2012; Austin, Glaeser, Summers forthcoming; Ziliak 2018), will be necessary if the Commission's dream of full employment and eradicating rural poverty is to be realized.

References

Aaron, H. (1967). The foundations of the War on Poverty reexamined, *The American Economic Review*, 57, 1229–1240.

Almond, D., Chay, K., & Greenstone, M. (2007). Civil rights, the War on Poverty, and black-white convergence in infant mortality in the rural south and Mississippi, MIT Department of Economics Working Paper 07-04. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=961021

Anderson, L. (1964). Trickling down: The relationship between economic growth and the extent of poverty among American families, *The Quarterly Journal of Economics*, 78, 511-524.

Austin, B., Glaeser, E., & Summers, L. (Forthcoming). Saving the heartland: Place-based policies in 21st century America, *Brookings Papers on Economic Activity*.

Autor, D., & Duggan, M. (2006). The growth in Social Security disability rolls: A fiscal crisis unfolding, *Journal of Economic Perspectives*, 20, 71-96.

Autor, D., Katz, L., & Kearney, M. (2008). Trends in U.S. wage inequality: Revising the revisionists, *Review of Economics and Statistics*, 90, 300-323.

Bitler, M., & Hoynes, H. (2016). The more things change, the more they stay the same? The safety net and poverty in the great recession, *Journal of Labor Economics*, 34, S403-S444.

Blanchard, O., & Katz, L. (1992). Regional evolutions, *Brookings Papers on Economic Activity*, 1, 1–75.

Blank, R., & Card, D. (1993). Poverty, income Distribution, and growth: Are they still connected? *Brookings Papers on Economic Activity*, 2, 285–339.

Blundell, R., Joyce, R., Keiller, A., & Ziliak, J. (Forthcoming). Income inequality and the labour market in Britain and the US, *Journal of Public Economics*.

Bollinger, C., Ziliak, J., & Troske, K. (2011). Down from the mountain: Skill upgrading and wages in Appalachia, *Journal of Labor Economics*, 29, 819-857.

Bound, J., & Johnson, G. (1992). Changes in the structure of wages in the 1980s: An evaluation of alternative explanations, *American Economic Review*, 82, 371-392.

Bradshaw, M. (1992). *The Appalachian Regional Commission: Twenty-five years of government policy*, Lexington, Ky.: University Press of Kentucky.

Breathitt, E. (1967). *The people left behind*: *A report by the President's national advisory commission on rural poverty*, Washington, DC.

Retrieved from https://files.eric.ed.gov/fulltext/ED016543.pdf

Card, D. (1999). The causal effect of education on earnings, In O. Ashenfelter and D. Card (eds.) *Handbook of Labor Economics*, Vol 3A, Amsterdam: North Holland, Ch. 30.

Danziger, S., Haveman, R., & Plotnick, R. (1981). How transfer programs affect work, savings, and the income distribution: A critical review, *Journal of Economic Literature*, 19, 975-1028.

Eberstadt, N. (2016). *Men without work: America's invisible crisis*, West Conshohocken, PA: Templeton Press.

Fisher, G. (1997). The development of the Orshansky poverty thresholds and their subsequent history as the official U.S. poverty measure. Retrieved from https://www.census.gov/content/dam/Census/library/working-papers/1997/demo/orshansky.pdf

Ganong, P., & Liebman, J. (2013). Explaining trends in SNAP enrollment, Harvard University.

Ginzberg, E., & Solow, R. (1974). *The great society: Lessons for the future*, New York, NY: Basic Books.

Gottschalk, P., & Danziger, S. (1985). A framework for evaluating the effects of economic growth and transfers on poverty, *The American Economic Review*, 75, 153–161.

Gundersen, C., & Ziliak, J. (2004). Poverty and macroeconomic performance across space, race, and family structure, *Demography*, 41, 61-86.

Haveman, R., & Schwabish, J. (2000). Has macroeconomic performance regained its antipoverty bite? *Contemporary Economic Policy*, 18, 415–427.

Hoynes, H., & Schanzenbach, D. (2009). Consumption responses to in-kind transfers: Evidence from the introduction of the Food Stamp Program, *American Economic Journal: Applied Economics*, 1, 109-139.

Iceland, J. 2003. Why poverty remains high: The role of income growth, economic inequality, and changes in family structure, 1949–1999. *Demography*, 40, 499-519.

Islam, T., Minier, J., & Ziliak, J. (2015). On persistent poverty in a rich nation. *Southern Economic Journal*, 81, 653-678.

Juhn C., Murphy K., & Pierce B. (1993) Wage inequality and the rise in returns to skill. *Journal of Political Economy*, 101, 410–442.

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* (pp. 149-168). Washington, DC: Brookings Institution.

Kubik, J. (1999). Incentives for the identification and treatment of children with disabilities: The Supplemental Security Income Program, *Journal of Public Economics,* 73, 187–215.

Lichter, D., & Schafft, K. (2016). People and places left behind: Rural poverty in the new century, In D. Brady and L. Burton (Eds.), *The oxford handbook of the social science of poverty*, Retrieved from: http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199914050.001.0001/oxfordhb-9780199914050-e-15?print=pdf

Ludwig, J., & Miller, D. (2007). Does Head Start improve children's life chances? Evidence from a regression discontinuity design, *The Quarterly Journal of Economics*, 122, 159-208.

Moffitt, R. (1992). Incentive effects of the U.S. welfare system: A review, *Journal of Economic Literature*, 30, 1-61.

Moffitt, R. (2013). The great recession and the social safety net, *The ANNALS of the American Academy of Political and Social Science*, 650, 143-166.

Moffitt, R., & Scholz, J. (2010). Trends in the level and distribution of income support, In J. Brown (Ed.) *Tax Policy and the Economy*, 111-152.

Moretti, E. (2011). Real wage inequality, *American Economic Journal: Applied Economics*, 5, 65-103.

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*, 672, 123-142.

Orshansky, M. 1963. Children of the poor, *Social Security Bulletin,* 26, 3–13.

Schmidt, L., & Sevak, P. (2004). AFDC, SSI, and welfare reform aggressiveness: Caseload reductions versus caseload shifting, *Journal of Human Resources*, 39, 792–812.

Weber, B., & Miller, K. (2017). Poverty in rural America then and now, in A. Tickamyer, J. Sherman, & J. Warlick (Eds.), *Rural poverty in the united states* (28-64), New York, NY: Columbia University Press.

Ziliak, J. (2006). Understanding poverty rates and gaps: Concepts, trends, and challenges, *Foundations and Trends in Microeconomics,* 1, 127-197.

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. (2015a). Recent developments in antipoverty policies in the United States. In J.K. Scholz, H. Moon, and S. Lee (Eds.), *Social Policies in an Age of Austerity* (235-262), Cheltenham, UK: Edward Elgar Publishing.

Ziliak, J. (2015b). Why are so many Americans on food stamps? The role of the economy, policy, and demographics." In J. Bartfeld, C. Gundersen, T. Smeeding, and J. Ziliak (Eds.), *SNAP Matters: How Food Stamps Affect Health and Well Being* (18-48) Redwood City, CA: Stanford University Press.

Ziliak, J. (2018). Restoring economic opportunity for 'The People Left Behind': Employment strategies for rural America, prepared for The Aspen Institute, Economic Strategy Group.

Data Appendix

The primary data sources used in the analysis come from the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS) for calendar years 1967–2016, and the Regional Economic Information System (REIS) produced by the Bureau of Economic Analysis for 1969-2016.

The CPS is a monthly survey of the U.S. labor force based on a stratified random sample of roughly 60,000 households, with the ASEC fielded in March of each year (and with some portion from the February and April samples) to collect information on household income, family structure, and health insurance in the prior calendar year. The ASEC is the official federal source of poverty, income inequality, and health coverage in the U.S., and has been used in scores of studies on poverty and inequality, and their correlates. The CPS has a rotating sample design whereby respondents are in-sample for 4 months, out-of-sample for 8 months, and then in-sample for 4 more months, which means that up to one-half of the ASEC sample shows up for two consecutive years.

I begin with a sample of 8,447,883 individuals across the 50 years of the survey, and then restrict to (a) civilian adults, (b) nonnegative ASEC survey weight, (c) age greater than 24 and less than 65, (d) nonimputed earnings or weeks worked or hours per week, and (e) non-missing metropolitan status. This leaves 3,128,273 observations. For the family poverty rate in Figure 1 I further restrict to observations whose relationship to head is the family head or primary individual. This leaves 1,706,177 families and unrelated individuals to construct the time series of poverty rates. All nominal income variables are converted to real terms using the Personal Consumption Expenditure Deflator with calendar 2009 base year.

Poverty status is based on the official Census Bureau definition, which includes all sources of private and government cash income, but does not include in-kind transfers, tax payments, or tax credits. The poverty threshold varies by family size, and is updated for inflation each year. A household is classified as living in a metro area if they reside in the central city or balance of the MSA; otherwise they are classified as a non-metro resident. In public release versions of the ASEC, it is not possible to identify county of residence, and thus more nuanced measures of rurality are not allowed. Education attainment is defined as fewer than 12 years of high school (less than high school), 12 years or a GED (high school graduate), 13-15 years (some college), and 16 or more years (college). A person is classified as married whether the spouse is present or absent, but it does not include those who are cohabiting. The latter is partially identified separately from marriage starting with the 1995 survey, and then more completely starting in 2007. The employment rate is defined as the fraction of the civilian population who worked for pay at some point in the calendar year prior to the survey (defined as weeks worked > 0). Weekly earnings is defined as the ratio of annual earnings from all jobs to number of weeks worked. Prior to the 1976 survey the ASEC did not report on usual hours worked per week, and thus to get a consistent time series I only report weekly earnings. Also, prior to the 1976 survey, weeks worked were reported as one of 7 intervals, and thus I use the midpoint for each range. Earnings in the ASEC are topcoded, and the value of the top code has changed over time. Beginning in the 2011 survey year, Census switched methods to rank proximity swapping, which preserves the distribution of earnings above the topcode. Recently Census released rank-swap values for all the

topcode income components (not just earnings) back to 1975, and I incorporate these into the data prior to constructing earnings. [1]

The ASEC sample used in Figures 15 and 16 is a restricted version of that used in earlier figures, focusing on years 1979-2015 as in Blundell, Joyce, Keiller, and Ziliak (forthcoming). In these figures there are two main income concepts—market income, which is the sum of private income sources (earnings, rent/interest/dividends, pensions, private transfers), and net income, which is market income plus government social insurance and means-tested transfers (inclusive of food stamps and the EITC and ACTC) less tax payments for federal, state and payroll liabilities. Tax payments, along with the EITC and ACTC, are obtained by running each tax unit through the tax calculator provided by the NBER TAXSIM program. Because the CPS did not start collecting food stamp benefits until the 1980 survey, and because state taxes are not available in TAXSIM until 1977, this part of the analysis focuses on the restricted time period of 1979-2015 tax years.

The REIS provides county-level aggregates of income, employment, and population from 1969 to the present using a combination of administrative data from state UI wage records and federal agencies such as Treasury, Social Security, Center for Medicare and Medicaid Services, Veterans Affairs, Agriculture, and Defense, as well as survey data from the U.S. Census Bureau and USDA. Some of the data collected refer to place of residence, and some to place of work (e.g. earnings for a worker employed in one county and residing in another).

In the sample used here, personal income for an area 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. Income maintenance transfers in the figures refer to welfare payments alone. Wage income refers to wages, salaries, commissions, tips, bonuses, and employee contributions to deferred compensation such as 401(k) plans by place of work, and thus includes both residents and non-residents. I use this broader measure of wages in order to capture the earnings capacity of a county. Finally, metro status is defined by merging in the rural-urban continuum codes (aka Beale codes) using county FIPS codes. The USDA has released a new version of the after each Decennial Census since 1970, and thus I use the decade-specific classification of the Beale code corresponding the appropriate decade in the REIS.[2] A county is classified as metro if the Beale code takes a value < 4, and non-metro for codes 4-9.

[1] https://www2.census.gov/programs-surveys/demo/datasets/income-poverty/time-series/data-extracts/asec-incometopcodes-swappingmethod-corrected-110514.zip
[2] https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/