Data Details Supporting

"The War on Poverty – Won and Lost"

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This paper evaluates the apparent contradiction between the failure of the official poverty measure to improve over the last 50 years and the rapid increases in real-dollar per-beneficiary spending on government transfer payments over the same period.

The Census Bureau counts as poor the number of people in families with "money incomes" lower than established money-income thresholds for their respective family size and composition. These thresholds were first established for 1963. The calculation began with the cost of an economical, nutritious food budget for each family type. The food budget was then multiplied by three for families with three or more people to get their poverty threshold because a 1955 survey had shown one-third of an average family's after-tax income was spent on food. Different, larger multipliers were used for smaller families. [1] Every year since, each threshold has been escalated by the percent change in the Consumer Price Index for all Urban Consumers (CPI-U) to adjust for inflation.

"Money income" consists of earned income and cash transfer payments such as Temporary Assistance for Needy Families. In 1965, almost all welfare payments were in cash. But the War on Poverty programs and their successors such as Food Stamps, Medicaid, and the refundable Earned Income Tax Credit (EITC) were classified as "in kind" or, in the case of the EITC, as a negative tax and not counted in the money income. Money income is not adjusted for taxes and does not include capital gains.

The history and trends of poverty

Lyndon Johnson's anti-poverty proposals were made in 1964 and the the constituent programs were legislated and implemented over the next few years. The first year with an increase in the in the growth rate for transfer spending was 1966.[2] That was a transition year; real transfer spending for low-income programs rose 12.0%, about 8 percentage points more than the average increase for the previous five years, but still 7 points below the average increase for the next ten years.

In 1966, the estimated proportion of the population determined to be in poverty was 14.7 percent. This was the end of a systematic decline in the official poverty measure over the preceding 20 years from a high of 32.1% in 1947. [3] Since then it has fluctuated between 11.1% (in 1973) and 15.2% (in 1983). The most recent 12.7% in 2016 was just slightly less than the average 13.2% over the entire 50-year period.

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[1] Two-person families were multiplied by 3.7, and the threshold for unrelated individuals as set at 0.72 the threshold for two-person families, Gordon M. Fisher, "The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official U.S. Poverty Measure," U.S. Census Bureau, Washington, DC, May 1992, partially revised September 1997, p.22, www.census.gov/content/dam/Census/library/working-papers/1997/demo/orshansky.pdf.

[2] For calculations in the next two paragraphs and Figure 1, total transfer payments relate to the total government social services transfers to people from the National Income and Product Accounts, U.S. Department of Commerce, Bureau of Economic Analysis, reduced by expenditure for Old Age and Survivor Insurance (Social Security) and Medicaid (aged component, excluding disabled and ESRD), and converted to real dollars using the PCE deflator.

[3] Data from 1959: U.S. Bureau of the Census, Current Population Survey, Annual Social and Economic Supplements, Table 2. Poverty Status of People by Family Relationship, Race, and Hispanic Origin: 1959 to 2017. Data 1947 –

The UN report on US poverty

A recent UN Special report[4] contains many false and misleading items, but our analysis is confined to just some of the main claims as they illustrate the general ideological direction of poverty discussions. Its summary "shocking" claim is: "About 40 million live in poverty, 18.5 million in extreme poverty, and 5.3 million live in Third World conditions of absolute poverty."

The 40 million in poverty is nothing new. It is the standard, published Census number. The more exact 40.6 million in poverty, constitute 12.7 percent of the population, a proportion that has merely oscillated around the same average during the last 50 years. The discussion below documents that this number is exaggerated by at least a factor of four.

The 18.5 million in "extreme" poverty is the standard documentation from Census of the number living with annual incomes of less than half the nominal poverty threshold. The representation that this is "extreme" poverty is strictly a rhetorical device by the author of the document, not the official determination by Census. This number too is exaggerated by a factor of at least four.

Finally, the claim of 5.3 million in Third World conditions of absolute poverty is justified by citing a *New York Times* opinion piece by Angus Deaton that summarizes other research.[5] This specific claim, however has been evaluated statistically by Bruce Meyer. There are many data problems with the very lowest income levels in the underlying survey. Both earned income and benefits are systematically under-reported, many government transfer payments are excluded, reported earnings are inconsistent with claimed work history, and likely data recording errors exaggerate the differences. By comparing the survey with administrative records, validating reported income versus assets, and other techniques he concludes that extreme poverty of less than $2 per day per person constitutes less than one-quarter of one percent of the population (≤0.24%), or less than 770,00 people.[6]

The UN report makes brief references to some other poverty estimates, such as the so-called supplemental measure by Census, but the three just discussed are their headlines. The supplemental measure suffers from multiple deficiencies, including using the 30th to 36th percentiles of various expenditure categories to set the poverty thresholds rather than a measurement of adequacy. This makes poverty a relative measure and means that the bottom 30 percent or so will always be defined as poor, no matter how rich they may become.

The alternative measure also escalates the thresholds by increases in actual expenditure levels, thereby explicitly raising the standard of living designated as poor at the same rate as the rise in living standards for everyone else. Finally, it subtracts job-related and healthcare expenditures from the measured family income. The former double counts actual consumption; the latter is justified as being an

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1958, Gordon Fisher, "Estimates of the Poverty Population Under the Current Official Definition, Years Before 1959," U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, 1986.

[4] "Report of the Special Rapporteur on extreme poverty and human rights on his mission to the United States of America," A/HRC/38/33/Add.1, United Nations, General Assembly, Human Rights Council, Thirty-eighth session 18 June – 6 July 2018.

[5] Angus Deaton, "The U.S. can no longer hide from its deep poverty problem", *New York Times*, January 24, 2018.

[6] Bruce D. Meyer, Victoria Mooers, Derek Wu, "The Use and Misuse of Income Data and the Rarity of Extreme Poverty in the United States," American Enterprise Institute. July 10, 2018.

investment rather than consumption. That is a not an economic distinction, but rather an ideological one. Are expenditures on broccoli and warm clothing to promote health also investments? The healthcare treatment is further distorted by subtracting not the actual expenditures of a specific family but the hypothetical expenditures that they might have made if they had the money.

Even beyond these hard, empirical facts, observational results of the poor show that they often receive substantial resources from off-the-books employment, family, lovers, and fathers of their children. These sources are not reported to the IRS, and generally not captured in Census surveys.[7]

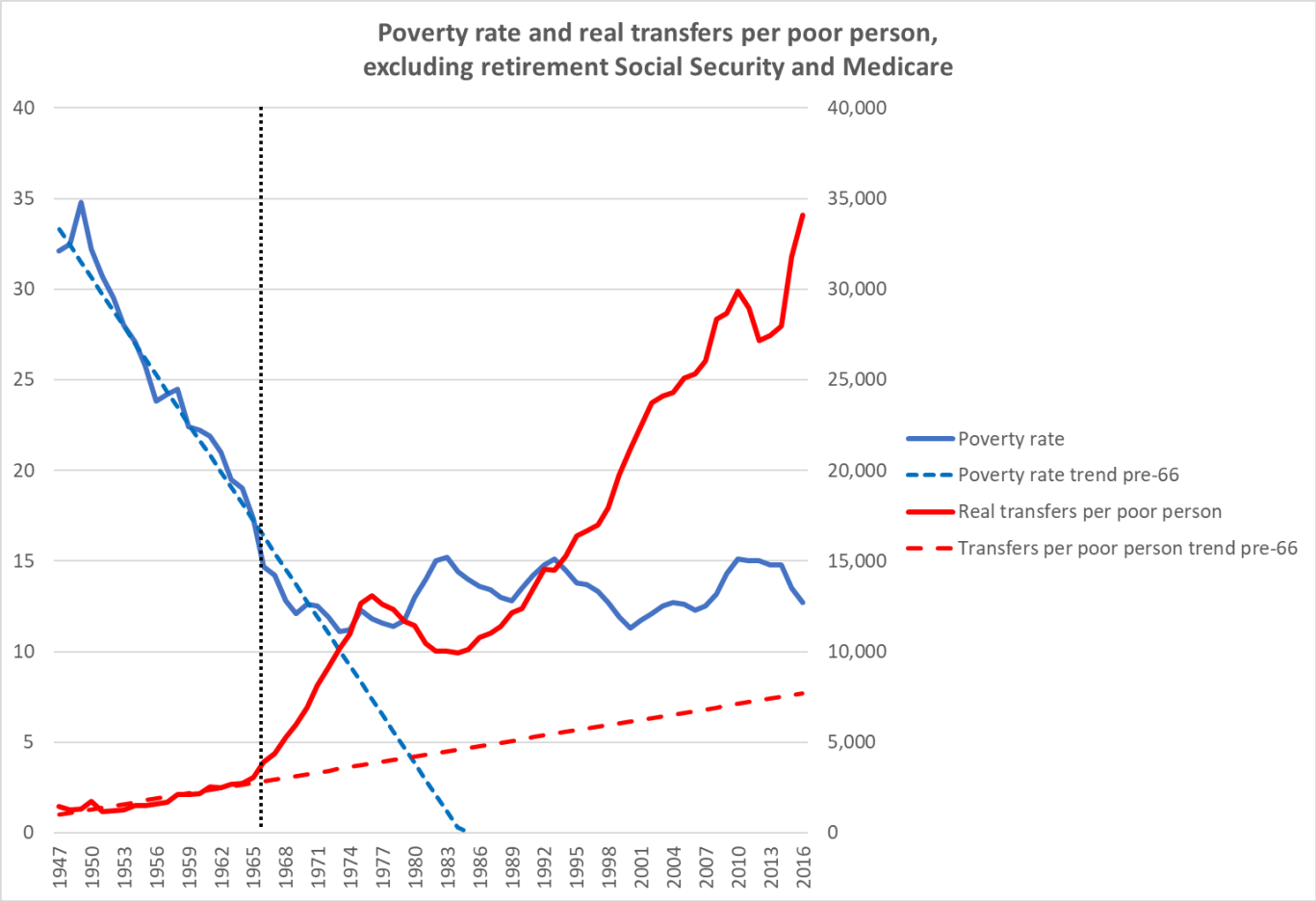
The UN report spends no time validating the estimates that it quotes but proceeds to repeat a variety of political talking points unrelated to the actual data. For example, it claims that these numbers represent "squalor and deprivation" – even though data on housing conditions, amenities, and size and on consumption, discussed below, show the contrary. The report claims that "Tax cuts will fuel a global race to the bottom." Just what that has to do with poverty is not explained. The suggestion that "The criminal justice system is effectively a system for keeping the poor in poverty," relies on a few anecdotes, but no systematic data. Finally, the claim that "the demonizing of taxation means that legislatures effectively refuse to levy taxes" is simply the statist call for more government power and is not tied in any way to poverty.

The divergent trends of poverty incidence and real per-person transfer payments

Before 1966, almost all public assistance for the poor was delivered in cash. The War on Poverty and subsequent anti-poverty policies have been designated as in-kind, and therefore not cash – although some such as food stamps and EITC are delivered as cash. Consequently, we have the contradictory movements of poverty levels that merely oscillated within a relatively narrow range and public expenditures on transfer payments that accelerated, even when adjusted for inflation and the number of people deemed to be in poverty. See Figure 1.

[7] For example, Christopher Jencks, "Forward," Kathy Edin and Laura Lein, *Making Ends Meet: How Single Mothers Survive Welfare and Low-Wage Work* , Russel Sage Foundation, New York, 1997.

Figure 1.



Sources: Poverty rates and counts 1957 – 2016: U.S. Bureau of the Census, Current Population Survey, Annual Social and Economic Supplements, Table 2. Poverty Status of People by Family Relationship, Race, and Hispanic Origin: 1959 to 2017; and 1947 – 1958, Gordon Fisher, "Estimates of the Poverty Population Under the Current Official Definition, Years Before 1959," U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, 1986. Transfers of Social Benefits to Persons, U.S. Department of Commerce, Bureau for Economic Research, National Income and Product Accounts, Table 3.1. Government Current Receipts and Expenditures, Government Social Benefits to Persons, May 30, 2018. Real transfers per poor person computed by author: Government Social Benefits to Persons minus Old Age and Survivor Insurance (OASI) benefit payments (Social Security Board of Trustees, Social Security Supplemental Historical tables, supplement16), minus OASI proportion of OASDI benefit payments times total Medicare benefit payments (Medicare and Medicaid Board of Trustees, 2017 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, (Washington, D.C, July 13, 2017) , 2017 Expanded and Supplementary Tables and Figures, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/index.html) and result are converted to 2016 dollars using the personal consumption expenditures deflator. Trends are OLS linear fits to their respective series 1947 – 1965.

Transfers (excluding Social Security and Medicare) per poor person was selected to measure government contribution to the War on Poverty because poverty is counted as the number of persons within poor families. Anti-poverty programs do not make payments exclusively to poor people because they also give reduced benefits to families with up to at least twice the poverty threshold, and some as much as four times the threshold. This phase-out arrangement means that the dollars per poor person are higher than the actual benefits paid to most individuals, but they show the normalized expenditure to eliminate poverty. On the other hand, the exclusion of Social Security and Medicare understates the true expenditure because they are targeted toward alleviating poverty among the aged. They are excluded in this calculation to provide a conservative estimate that avoids some of the social insurance debates. Table 1 contains some alternative normalized measures, all of which show essentially the same rapid acceleration of social benefit spending, just at different scales.[8]

Table 1.

Real 2016 dollar social service transfers to persons per unit			
	1965	**1967**	**2016**
Excluding Social Security and Medicare			
Poor person	3,402	4,851	37,772
Poor family	3,593	5,340	49,879
Quintiles 1 & 2 family	5,253	6,068	42,348
Quintiles 1 & 2 household	n/a	5,001	27,645
Including Social Security and Medicare			
Poor person	6,062	9,297	66,747
Poor family	7,094	11,338	97,651
Quintiles 1 & 2 family	10,372	12,886	82,907
Quintiles 1 & 2 household	n/a	10,618	54,121

Sources: See Figure 1.

[8] A few technical details will help to understand Table 1. There are four different units of analysis. Per poor person is the count of people in families with money income below their relevant poverty threshold. The families used in poverty calculations include single-persons who do not live with other people related by birth, marriage, or adoption. Families used in other income distributions are only two or more people living together and related by birth, marriage, or adoption. As a result, there are more family units in the poverty calculation than in the standard income distributions. In fact, there are more poverty-families than 2-or-more-person families in the bottom two income quintiles. As a result, the transfers per poor family are lower than the transfers per family in the first and second quintiles.

The fourth unit of analysis is household, which includes not only families but unrelated individuals living together or with unrelated families. Census began using that unit of analysis in 1967 and could not reconstruct households before that time – hence the added column for 1967. One of the complications for analyzing the effects of the War on Poverty is that the data by household do not exist prior to 1967, so one cannot compare to a 1965 or earlier baseline. Most of the analysis that follows is, therefore, on a family basis. But even that becomes more complicated because, although the micro data exist, Census has stopped publishing 2-or-more family data. (Family units for poverty analysis continue to be published.) To achieve comparability across longer periods of time, this analysis has mostly used 2-plus family data – constructing the family estimates from the micro data where possible.

Although some households and families in the highest income quintile also receive Social Security OASI and Medicare payments, beneficiaries in the lowest quintile get ten times as much benefit relative to what they pay, so excluding these two senior programs understates the full degree of redistribution. Both Social Security and Medicare incorporate strong redistribution elements which include: a Social Security benefit formula that in 2016 incorporated 90% of the first $856 of average monthly earnings, 32% of the next $4,301, and only 15% of the remainder; taxing up to 85% of Social Security benefits for people who continue earning from work or savings after retirement age; charging beneficiaries with other retirement income more than three times the amount of Medicare premiums; and subsidizing the bottom 20% of Medicare beneficiaries with no premiums, deductibles, or coinsurance.[9]

Missing transfers

The divergence between the rapidly rising government transfer payments and the unchanged poverty rate can be traced to the fact that Census counts only a few transfer programs in family income, such as Social Security, unemployment insurance, Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI). It explicitly excludes food stamps, Medicaid, Children's Health Insurance, the refundable portion of the Earned Income Tax Credit, at least 95 other federal transfer payments to individuals,[10] and most state transfer payments. Table 2 compares the transfer payments used in calculating poverty with the total paid out by government.

Table 2

Comparison of transfer payments used to calculate poverty with actual government payments, 2016

	$ billion
Income used to calculate poverty	
Private income	9,803.3
Government transfers	926.0
Total Income	10,729.3
Transfer analysis	
Total actual transfers	2,711.0
Transfers missing from calculation	1,784.9
Social Security under-reporting example	
Social Security in poverty calculation	778.1
Acutal Social Security payments	911.3
Missing Social Security	133.2
Missing other transfers	1,651.7

Note: May not add exactly to totals owing to rounding.

Sources: Values used in calculating poverty rate: U.S. Department of Commerce, Census Bureau, Current Population Survey, Annual Social and Economic Supplement, micro data, March 2017, reporting on income from 2016. Total actual transfers: U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts, Government Current Receipts and Expenditures, Table 3.1. Government Current Receipts and Expenditures, Government Social Benefits to Persons, May 30, 2018. Actual Social Security Payments: Medicare and Medicaid Board of Trustees, 2018 Annual Report of the

[9] See Appendix A for details of the computation

[10] See Appendix B for a list of means-tested transfer programs.

Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, (Washington, D.C, June 5, 2018).

By including the missing transfer payments in the calculation of poverty, the poverty rate drops to 3%. This result is virtually the same as that calculated by Meyer and Sullivan in their American Enterprise Institute study, which measured poverty using family consumption.[11]

Another bias in the poverty rate is not included in the subject paper but should be noted here. For a variety of well-known price index factors, the CPI-U, which is used to adjust the poverty thresholds for inflation, overstates a true cost-of-living adjustment, thereby setting the poverty thresholds higher than a pure-price change would require.[12] While the bias is small in any one year, over the past 50 years the biases accumulated. The 2016 thresholds have been escalated by a total of 684% from their 1963 base. Of that total increase, the true cost of living rose approximately 400%, and the standard of living represented by the thresholds was 284% higher.[13] Adjusting the thresholds to remove this bias, lowers the poverty rate to about 3% too. Applying corrections for both the missing income and the threshold overstatements would reduce the poverty rate to about 2%.

The 284% rise in the standard of living contained in the 2016 thresholds is consistent with other independent data on housing and personal consumption. Only about 2.5% of the population has even a single day of hunger or malnutrition in a year. Only about 1% of the population lives in housing that is severely inadequate or crowded – one-fourth as many as in 1975. Air conditioning is seven times more prevalent among "poor" families today than among the general population when the War on Poverty began. Most "poor" families have micro waves, at least one vehicle, video games, flat-screen TVs, and personal computers.[14]

Omitting $1.5 trillion in transfer payments to lower income families from the calculation of poverty rates has fueled the perception that poverty remains high, when in fact it is very low. The automatic entitlement mechanisms have driven transfers such that they now equal to 84.2% of all disposable income of the poorest quintile of American earners and 57.8% of the disposable income of lower-middle income households. In total, the U.S. now funds transfer payments equal to 27.5% of the Nation's disposable income.[15]

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[11] Bruce D Meyer and James X Sullivan. "Annual report on U.S. consumption poverty: 2016." American Enterprise Institute, 2017, http://www.aei.org/publication/annual-report-on-us-consumption-poverty-2016/

[12] John F. Early "Appendix G: Upward Bias from CPI-U Escalation," *Reassessing the Facts about Inequality, Poverty, and Redistribution: Technical Appendixes*, https://object.cato.org/sites/cato.org/files/pubs/pdf/pa-839-technical-appendixes.pdf

[13] The 684.3% increase in the CPI-U from U.S. Bureau of Labor Statistics, All items in U.S. city average, all urban consumers, not seasonally adjusted. The CPI-U research series (CPI_U RS) removes many of the biasing features, https://www.bls.gov/cpi/research-series/home.htm. Additional substitution biases that are inherent in the index have been removed by the author based in part on Bruce D. Meyer and James X. Sullivan, "Winning the War on Poverty: Poverty from the Great Society to the Great Recession," (NBER Working Paper No. 18718, National Bureau of Economic Research, Cambridge, MA, January 2013). The resulting bias-adjusted price index rose 399.6%, leaving a 284.7% rise on the standard of living.

[14] John F. Early "Appendix I: Independent Data Demonstrating the Upward Bias in Published Poverty Measures," *Reassessing the Facts about Inequality, Poverty, and Redistribution: Technical Appendixes*, https://object.cato.org/sites/cato.org/files/pubs/pdf/pa-839-technical-appendixes.pdf

[15] Disposable income can be defined several different ways. Here it is used as:

Private charitable giving is not captured in official economic statistics, but it is believed to be in the neighborhood of $500 billion.[16] We have not attempted to incorporate the impact of charitable giving (only a portion of which would go to the poor), the informal economy, and intra-familial transfers. They are noted here as additional sources of support that are not captured by the official statistics.

The adverse effects of large transfers

Standard economic theory suggests that the large increase in transfer payments would reduce labor force effort. Besides the usual challenges of disentangling the effects of multiple factors, testing for impacts from the War on Poverty is further complicated by changes in the definitions, data collection, and data publication over the 50-plus years that need to be studied. The Census Bureau Current Population Survey (CPS) is the source for all the data, but the data extraction and calculations had to be adjusted for different years to adapt to changes in Census methods, publication, and retention.

The analysis measures the change in the proportion of families in each income quintile that are headed by individuals under the age of 65 and had nobody working during the reference year. The base year for comparison is 1965, the last year before any significant funding for the War on Poverty. The analysis compares the rate at which people did not work at subsequent 10-year intervals through 2015. (The exception is 1985. Quirks in the Census archiving made it at least difficult, if not impossible, to retrieve the needed data for 1985 and 1986, so 1987 was used.)

The primary unit of analysis for Census changed in 1967 from families and unrelated individuals to households. No household data exist prior to 1967 because the needed identifiers had not been collected to combine respondents into households. Setting the base period at 1967 would have damaged the analysis because significant new, uncounted transfers were already in place from the War on Poverty. Fortunately, it is still possible to construct family-based estimates after 1967, so families are used throughout. Using families also makes sense because the poverty measure is family-based.

Once the household aggregate was introduced, Census began reducing the published and archived tabulations by family, which made data retrieval more challenging. After 1995, very little family data was published so the analysis required tabulations from the micro-data. The analysis also depended on having reliable estimates of work history of family members by income quintile, but Census published

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[income earned through work or savings/investment] + [government transfers] – [taxes]
Taxes take 36.5% of earned income and fund the transfers plus government consumption. 53% of households receive net positive transfers (transfers minus taxes). The other 47% pay net taxes.

[16] A widely used source for charity data is *Giving USA 2018: The Annual Report on Philanthropy for the Year 2017*, a publication of Giving USA Foundation, 2018, researched and written by the Indiana University Lilly Family School of Philanthropy, https://givingusa.org/tag/giving-usa-2018/ . It estimates the 2017 amount at $410 billion. These are the most widely used estimates, but evaluations of the methods have pointed out that the data are biased toward large, national charities and miss contributions to local and private charities. Bequests tend to be systematically understated because of gaps in data sources and the shift from simple bequests to various forms of charitable trusts established during life. See for example, Craig C. Wruck and Melissa S. Brown, "The Art and Science of Estimating Bequests: Giving USA at Fifty," American Association of Fund Raising Counsel, *Journal of Gift Planning*, https://info.charitablegiftplanners.org/hubfs/Education/Giving%20USA%20Estimating%20Bequests.pdf . We have used the general order of magnitude here to show its importance, but the exact size is not applicable to the other estimates in this paper.

quintile-based family data on only a sporadic basis, so once again the analysis depended on calculations from the micro data or from published income-range data.[17]

In principle, we would have liked to have a direct calculation of the percentage of families with working-age heads that had nobody working in the previous year. We have been able to compute that statistic for 1995 forward with public-use micro data files, but not yet for years before that. See Table 3.

Table 3.

	Percent of families not headed by senior with nobody working, by income quintile				
	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
1965					
1975					
1987					
1995	26.021	3.852	1.607	0.781	0.652
2005	26.348	4.895	2.167	1.130	0.481
2015	26.699	3.832	1.575	0.622	0.317

Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement for the respective reference years. Calculated by authors from public-use micro data files.

Since 1995, the percent of non-senior families with nobody working has slowly inched up from 26.0% to 26.7%. The middle three quintiles all posted a small increase for 2005 but returned to even lower levels in 2015. The highest quintile continued to decline very slowly throughout the period. Clearly, over the last 20 years, more than one-quarter of the working-age families in the bottom income-quintile have systematically had nobody working at any time during the year.

This high-incidence of withdrawal from work is, of course, partly a cause of families' being in the lowest quintile. Without working, they make no income from private sources. But it is also an effect of low-income families receiving significant transfer payments. With sufficient transfers, some people will simply not work. The reservation wage is defined as the amount of money that is required to entice people to go to work. If the choice is between going to work and not eating, the reservation wage will be quite low. But if they are receiving government transfers, the reservation wage will increase. Of course, different individuals have different reservation wages and exert different amounts of effort to raise their standards of living. In fact, nearly three-quarters of the families in lowest quintile work at least some.

The key question we will try to answer is whether the huge increase shift in the size and availability of transfer payments after 1965 raised the rate at which working-age adults withdrew from active employment because of reduced incentives to work. We begin by looking the percent of families in each quintile in which nobody had worked during the previous year. See Table 4.

[17] See Appendix C for a year-by-year list of detailed data sources.

Table 4.

	Percent of families with nobody working				
	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
1965	32.045	7.367	1.296	0.613	0.863
1975	41.310	12.995	4.364	1.454	1.104
1987	40.400	18.300	7.600	3.900	2.100
1995	39.500	19.400	8.100	3.500	2.600
2005	38.992	18.929	7.551	3.891	2.088
2015	40.262	20.679	10.139	5.551	3.137

Sources: See Appendix C

Table 4 shows a nine-percentage point jump in families with nobody working from 1965 to 1975 as the effects of the War on Poverty took hold. But the trend is a little bit complicated because each of the other quintiles had smaller increases as well. A major part of the explanation for this apparently parallel trend in each of the quintiles lies in a shift in the retirement-aged population. See Table 5.

Table 5.

	Percent of families with senior head				
	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
1965	35.399	16.453	8.113	5.713	5.731
1975	30.147	20.130	10.550	6.513	6.290
1987	23.900	24.900	14.600	9.400	7.500
1995	22.300	25.700	15.400	9.500	8.300
2005	22.578	24.255	14.819	9.308	8.097
2015	22.021	27.085	20.858	17.002	13.990

Sources: See Appendix C

Families headed by a person over the age of 64 are far more likely to have nobody working because they are retired. Beginning in the first ten years and continuing up until the present, the proportion of retired families in the first quintile has declined rather systematically, while the proportion of retired families in the other quintiles increased.

Multiple factors contributed to this trend. Social Security benefits, especially at the lower-end of the scale increased faster than earnings, to the point where the average Social Security beneficiary would be in the second quintile based on Social Security benefits alone, and many would be in the middle. In addition, an increasing proportion of retirees had employer retirements benefits, IRA's, and 401k's, which could push them up yet another quintile or more.

For our analysis, we want to adjust the number of non-working families for the impact of retired families. Our first step in that adjustment is to subtract the percent of the population that are senior families from the percent that are not working. We call that the "net non-senior families with nobody working." For example, if 40% of the families were not working and 30% were age 65 or over, we would expect that at least 10% of the total were families of working age with nobody working. If some of the over-64 families were, in fact, working, then the proportion of working-age families with nobody working would be even larger. Table 6 shows the net difference for all quintiles across the 50-year history.

Table 6.

	Net non-senior families with nobody working				
	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
1965	-3.354	-9.086	-6.817	-5.100	-4.868
1975	11.163	-7.135	-6.186	-5.058	-5.186
1987	16.500	-6.600	-7.000	-5.500	-5.400
1995	17.200	-6.300	-7.300	-6.000	-5.700
2005	16.414	-5.325	-7.268	-5.417	-6.010
2015	18.241	-6.406	-10.719	-11.451	-10.853

Sources: Computed from Tables 4 and 5.

The year 1965 presents essentially the same picture for each of the five quintiles – a single-digit negative percent. These negative numbers mean that in every quintile there were more senior families than families with nobody working, a reasonably healthy economic picture that was shared by all five quintiles. But with the advent of the War on Poverty, the picture reversed for the lowest percentile, and only for the lowest percentile. For it, the minimum proportion of working-age families without anybody working for an entire year jumped by more than 14 percentage points, while all the other quintiles retained their healthy relationship of more senior families with workers than non-senior families without anybody working. The gap between the lowest quintile and the others has continued to grow to more than 24 percentage points in 2015.

For the middle quintiles and above, the net number has continued to grow more negative – indicating that there was some combination of decreasing proportions of prime-age families with nobody working and increasing proportions of senior families with at least one employed person. The second quintile has posted a slight reduction in its negativity, indicating some combination of more working-age families with nobody working and fewer working senior families.

The year-to-year changes in these metrics might be affected by a variety of other trends and cyclical factors such as the increasing participation of women in the labor force and the variation of demand for labor during recessions and recoveries. One way to adjust for those broader movements in the economy is to look at the differences between the various quintiles and the middle quintile. These differences for

the percentage of families with nobody working and the percentage of families with a senior head are shown in Table 7.

Table 7.

	Percent of families with nobody working Difference from Middle					Percent of families with senior head Difference from Middle				
	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
1965	30.749	6.071	0.000	-0.683	-0.433	27.287	8.340	0.000	-2.400	-2.382
1975	36.947	8.632	0.000	-2.909	-3.260	19.597	9.580	0.000	-4.037	-4.259
1987	32.800	10.700	0.000	-3.700	-5.500	9.300	10.300	0.000	-5.200	-7.100
1995	31.400	11.300	0.000	-4.600	-5.500	6.900	10.300	0.000	-5.900	-7.100
2005	31.441	11.379	0.000	-3.660	-5.463	7.759	9.436	0.000	-5.511	-6.721
2015	30.123	10.540	0.000	-4.587	-7.002	1.163	6.227	0.000	-3.856	-6.868

Sources: Computed from Tables 4 and 5

These data of difference from the middle show the same broad trends we have already identified but add some more perspective. The proportion of the families in the lowest quintile with nobody working relative to the same type of families in the middle quintile rose sharply from 1965 to 1975 even in the face of an equally sharp drop in the relative proportion of senior families. As the relative share of senior families fell even farther in subsequent years, the overall percentage of non-working families in the lowest quintile eased up a bit, although the percentage of working-age families with nobody working would have continued to increase.

We also computed the differences between the relative percentage of non-working families and senior families to get the minimum estimate of the relative proportions of non-working families of working age. See Table 8 for those net differences as well as that difference as a percentage of working-age families.

Table 8.

	Minimum difference in non-working owing to non-senior					Minimum difference in non-working owing to non-senior as percent of non-senior				
	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
1965	3.462	-2.270	0.000	1.717	1.948	5.360	-2.717	0.000	1.821	2.067
1975	17.350	-0.949	0.000	1.128	1.000	24.837	-1.188	0.000	1.207	1.067
1987	23.500	0.400	0.000	1.500	1.600	30.880	0.533	0.000	1.656	1.730
1995	24.500	1.000	0.000	1.300	1.600	31.532	1.346	0.000	1.436	1.745
2005	23.682	1.943	0.000	1.851	1.258	30.588	2.565	0.000	2.041	1.369
2015	28.960	4.313	0.000	-0.732	-0.134	37.138	5.915	0.000	-0.881	-0.156

Sources: Computed from Tables 5 and 7

This normalization of the data puts the trends in crisp relief. Before the War on Poverty, working-age families in the lowest quintile were only 5.4% more likely to have nobody working than similar families in the middle. Ten years later, that gap had grown to 24.8%, and today is 37.1%. The trend for the second quintile is less dramatic, but still significant. Before the War on Poverty, working-age families in the second quintile were actually 2.7% less likely to have nobody working than the middle, but today,

they are 6.5% more likely not to work. As one would expect, the effects are much larger in the lowest quintile where the transfers have been both larger and more prevalent. Over time, the relative size of transfers has increased, and their penetration has reached all the way into parts of the middle quintile, bringing with them debilitating incentive to stop working.

Another indicator of the negative impact of transfers on work effort is the proportion of families with two or more workers. This indicator is not as readily adjusted for the effects of the retired population, but the differences are so large that they show yet another dimension of reduced work effort from transfers. See Table 9.

Table 9.

Percent of families with number of earners by quintile, 2015

Characteristic	Lowest fifth	Second fifth	Middle fifth	Fourth fifth	Highest fifth
No earners	40.3	20.7	10.1	5.6	3.1
One earner	49.5	44.9	31.9	22.9	16.9
Two earners	9.5	30.8	48.3	55.5	58.6
Three earners or more	0.7	3.7	9.6	16.1	21.4

Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, March 2016 (reference year 2015), public-use micro data. Computed by authors.

The middle quintile has 5.1 times more families with two or more workers than the lowest quintile. Even the second quintile has 3.4 times as many.

Appendix A: Redistribution Through Social Security and Medicare

Table A1 contains four different measures of the relationship between Social Security (OASDI) taxes paid over a working life and Social Security benefits received during retirement. These measures are shown for each of four different working-life income streams that are typical of each of the lower four quintiles of earned income. Because Social Security taxes are collected only up to a set maximum earning level each year ($118,500 in 2016), earners in the top fifth will pay the same Social Security Taxes and get the same results as shown here for the fourth quintile.

Table A1
Benefits for Typical Social Security Beneficiaries by Earning Quintile

Table A1
Benefits for Typical Social Security Beneficiaries by Income

	Average Quintile during Working Life			
	Bottom	2nd	3rd	4th
Replacement of final five years	104.1%	74.4%	50.5%	28.0%
Number of years before tax and interest are exhausted	6	8	11	19
Benefit/tax ratio	9.8	7.0	5.0	2.9
Return on annuity	20.6%	14.4%	10.3%	4.0%

Source: Calculation method for benefit from United States Department of Health and Human Services, "Section 2," *Old Age, Survivors, and Disability Insurance*. "Appendix E: Computing a Retired-Worker Benefit," *Annual Statistical Supplement to the Social Security Bulletin*, 2013. Calculations by author.

The calculations for Table A1 were based on representative earning amounts subject to Social Security taxes during a working life typical of each quintile. In addition to the taxes paid, the calculations (except for the benefit/tax-ratio) included the interest imputed by the Treasury Department to Social Security balances. Then the regulatory 50-step process was applied to the earnings stream to compute the benefits.

The results differ by income level owing primarily to the so-called bend-points in the computation of the initial benefit. The calculation counts 90% of the first $856 of average monthly taxed earnings; it then counts 32% of the next $4,301, and finally only 15% on the remainder (for 2016). During their earning years, all beneficiaries pay the full tax rate on the associated income, so the lower earners are getting six-times the credit for their taxes as the top earners get for their marginal additional taxes.

The following four statistics were calculated for each of these cases.[18]

[18] Research sponsored by the Social Security Administration reached similar conclusions using a different approach. Andrew G. Biggs, Mark Sarney, and Christopher R. Tamborini, "A Progressivity Index for Social Security," Issue Paper No. 2009-01, Washington, DC, January 2009. They conclude, "Results indicate that OASDI lies roughly halfway between a flat replacement rate and a flat dollar benefit for current retirees."

- **Replacement of the final five years** calculates benefits paid as a percentage of workers' average annual OASDI-taxed earnings during their last five years of work. The low earners receive benefits that are slightly more than their taxed earnings. Second quintile workers replace about three-quarters of their taxed earnings with Social Security. Those in the middle replace about half, and top earners replace only 28 percent of their OASDI-taxed earnings.
- **Year tax and interest exhausted** measures how long the OASDI taxes collected during working years plus the imputed interest would be able to continue paying the calculated benefit. Of course, in Social Security the payments do not stop. The money to pay them simply comes from payroll taxes paid by current workers and employers. The lowest earners would exhaust their paid-in capital in six years, while the taxes paid by those in the fourth quintile would continue benefits for 19 years—slightly longer than the average life expectancy for retirement at the federal full retirement age.
- **Benefit/Tax ratio** is a simple measure of how much benefit is received, divided by the amount of OASDI tax paid. The lowest earners receive almost 10 times their tax payments, while those in the upper 40 percent get less than three times what they paid.[19]
- **Return on annuity** tells us what percentage of the beneficiaries' taxes plus imputed interest was returned to them each year after starting to draw benefits. Over the period in question, a conservative investment portfolio might have earned between 5 percent and 6 percent in return, so the top two quintiles earned less than they would have with conservative investments. But those from the middle down were making unrealistically high returns of between 10 percent and 20 percent because they were being paid from the taxes of other workers.

Almost half of Social Security beneficiaries have a "base income" level that requires them to pay federal income tax on their benefit. The base income adds otherwise tax-free municipal bonds and half of the Social Security benefit to ordinary taxable income. For persons in the fourth or fifth income quartile during most of their working years, benefits will be taxed as soon they earn more than $19,000 in other income during retirement. The proportion of the benefit taxed is graduated, up to a maximum of 85 percent.

Table A2 shows the effect of federal and state income taxation on the financial return on Social Security taxes. The first four lines are for cases free of federal income taxes because they have low base income. The remaining lines are for fourth-quintile earners earning $19,000 or more in non–Social Security income after retirement.

[19] All cases get more than their paid-in taxes as a result of the imputed interest earned from Treasury.

Table A2
Return on Social Security after Federal and State Income Tax

OASI-Taxes Earning Quintile	Non–Social Security Retirement Earnings	Benefit/Tax Ratio	Return on Social Security Annuity
Lowest		9.8	20.6%
2nd		7.0	14.4%
3rd		5.0	10.3%
4th	< $19,000	2.9	4.0%
4th	$19,100	2.6	2.6%
	$20,000	2.4	2.1%
	$32,000	2.1	0.7%
	$75,000	2.0	0.0%
	$172,000	1.8	-0.7%
	$392,000	1.6	-1.7%

Computed by author based on IRS and Social Security tables for female beneficiaries and a median state tax rate graduated from 1 percent to 4 percent across income levels as an average that reflects the 14 states that tax it.

The last six lines show metrics for after-tax Social Security benefit for cases with fourth-quintile benefits and illustrative levels of non-Social-Security income. The specific levels of other income were selected to reflect the different tax brackets of the income-tax law. The income levels shown are for all sources of income other than Social Security.

The three lower Social Security benefits will also be taxed if the beneficiaries have enough other income. Many middle-income earners have employer or union retirement plans and even savings that would easily cause degradation of their total after-tax Social Security benefits.

The Social Security formula gives low earners a benefit ratio that is about two times larger than that for a middle earner and more than three times larger than that for a worker in the top two quintiles. Including the effect of federal and state income taxes doubles the differential between the lower and upper income beneficiaries from 3:1 to 6:1. For above-average beneficiaries, the taxation of benefits quickly diminishes their returns to almost nothing. If they have savings income or continue to work, their return on the annuity value of their Social Security will drop to zero at $75,000 of additional earnings, and above $75,000 their return on Social Security will be a dead loss. They put in more than they get out, sort of like the last person to join a Ponzi scheme.

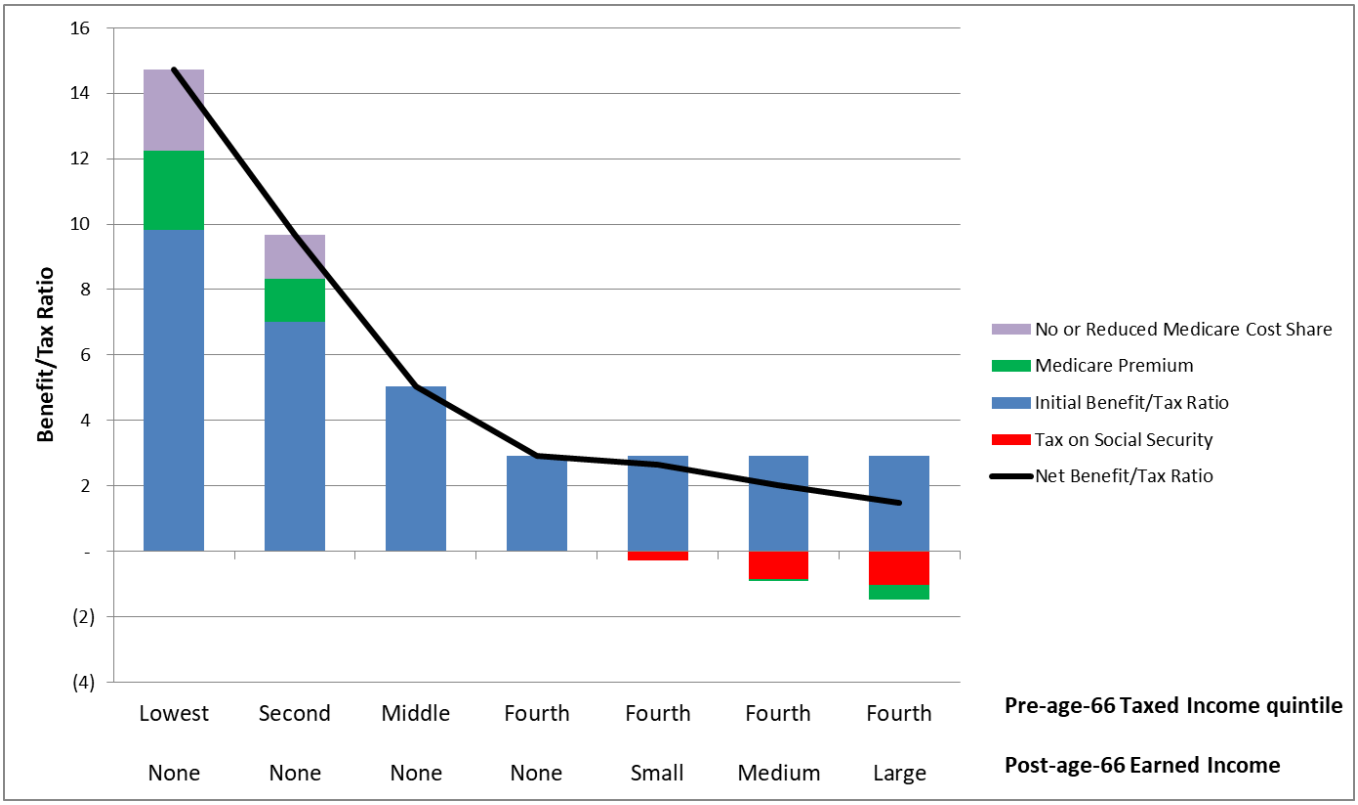
Medicare is often characterized as a health plan that seniors have purchased with payroll taxes during their working years and premiums they pay in retirement. In fact, the payroll taxes apply only for Part A, the hospitalization coverage. Parts B and D, medical and drug coverage, are paid for by current premiums charged to beneficiaries and by permanent appropriations from the general fund paid for by income and other taxes.

Redistribution features of Medicare include:

- Medicare beneficiaries with above-average incomes pay 3.3 times as much premium for their Medicare Part B coverage as those in the base program. And beneficiaries with low incomes pay no Part B premiums at all.
- For drug coverage above-average earners pay almost 3 times the base, with the low incomes paying nothing.
- People with incomes as high as 400 percent of the government poverty level are eligible for additional subsidies. For married couples, these subsidies go to households with annual incomes as high as $64,000, encompassing more than 70 percent of households over age 65. These subsidies pay for some or all of the premiums. They also reduce or even eliminate the deductibles and copays.

Figure A1 combines the major redistribution aspects of Social Security and Medicare. It shows the benefit/tax ratio under a range of possible scenarios. A benefit/tax ratio of about %:1 would be equivalent to having invested one's Social Security taxes in a moderately aggressive stock portfolio. Ratios significantly greater than 5:1 in the long-run are unlikely without some form of subsidy or fraud—or just dumb luck. Ratios of about 3:1 are consistent with investing the tax payments in the lowest-paying, most secure instruments, namely Treasury bonds. Ratios less than 3:1 are indicative of opportunity losses as the result of fraud, really bad investment choices, or government compulsion.

Figure A1
Net Social Security Benefit/Tax Ratios after Tax and Medicare Assessments and Transfers



Sources: For initial benefits see Table A2. For tax effects see Figure A1. Medicare premium effects are zero—i.e., the base-program values—for the middle and fourth-quintile cases with no significant post-age-66 earnings. The 2014 Part B premium and Part D lowest premium are added to the minimum earnings benefits. The fourth-quintile earnings premium effects are the additional income-related monthly adjustment amounts (IRMAA) for the relevant income levels. The benefit value of paying no cost sharing is priced at the base enrollee deductibles, copays, and coinsurance.

The net effect is that beneficiaries with first-quartile earning histories receive almost exactly 10 times more benefit for each dollar paid than those in the fourth and fifth quintiles. Nevertheless, the mythology continues that Social Security and Medicare are rights, not welfare. One proposed "reform" is to establish some sort of additional means testing. Policymakers should approach that discussion with the full understanding that these benefits are already a means-tested, highly redistributive program that moves billions of dollars from people with higher income to those with lower income.

Appendix B: Federal Need-based Programs

The following is a list of federal need-based (welfare) programs, assembled using Congressional Research Service (CRS), "Spending for Federal Benefits and Services for People with Low Incomes, FY2008–FY2011," Washington, DC, October 16, 2013. The original list has been rearranged to show which programs are included in the CBO and Money Income (Census standard for poverty) estimates of household income.

In Census Money Income, at least partially:

1. Supplemental Security Income
2. Temporary Assistance for Needy Families (TANF) cash aid

In CBO only, at least partially, but not in Census Money Income:

3. Earned Income Tax Credit (refundable component)
4. SNAP (food stamps)
5. Medicaid
6. CHIP

In OECD, at least partially, but not explicitly in CBO or Money Income estimates:

7. National School Lunch Program (free/reduced price components)
8. School Breakfast Program (free/reduced price components)
9. Low-Income Home Energy Assistance Program (LIHEAP)
10. Housing subsidy (inferred to be Section 8 Housing Choice Vouchers)

Not in Census Money Income, OECD or CBO Estimates:

11. Public Housing
12. Family Planning

13. Consolidated Health Centers
14. Transitional Cash and Medical Services for Refugees
15. Voluntary Medicare Prescription Drug Benefit—Low-Income Subsidy
16. Ryan White HIV/AIDS Program
17. Breast/Cervical Cancer Early Detection
18. Maternal and Child Health Block Grant
19. Indian Health Service
20. Additional Child Tax Credit
21. Special Supplemental Nutrition Program for Women, Infants and Children (WIC)
22. Child and Adult Care Food Program (lower income components)
23. Summer Food Service Program
24. Commodity Supplemental
25. Food Program Nutrition Assistance for Puerto Rico
26. The Emergency Food Assistance Program (TEFAP)
27. Nutrition Program for the Elderly
28. Indian Education
29. Adult Basic Education Grants to States
30. Federal Supplemental Educational Opportunity Grant
31. Education for the Disadvantaged—Grants to Local Educational Agencies (Title I-A)
32. Title I Migrant Education Program
33. Higher Education—Institutional Aid and Developing Institutions
34. Federal Work-Study
35. Federal TRIO Programs
36. Federal Pell Grants
37. Education for Homeless Children and Youth
38. 21st Century Community Learning Centers

39. Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP)
40. Reading First and Early Reading First
41. Rural Education Achievement Program
42. Mathematics and Science Partnerships
43. Improving Teacher Quality State Grants
44. Academic Competitiveness and Smart Grant Program
45. Single-Family Rural Housing Loans
46. Rural Rental Assistance Program
47. Water and Waste Disposal for Rural Communities
48. Public Works and Economic Development
49. Supportive Housing for the Elderly
50. Supportive Housing for Persons with Disabilities
51. Section 8 Project-Based Rental Assistance
52. Community Development Block Grants
53. Homeless Assistance Grants
54. Home Investment Partnerships Program (HOME)
55. Housing Opportunities for Persons with AIDS (HOPWA)
56. Indian Housing Block Grants
57. Neighborhood Stabilization Program
58. Grants to States for Low-Income Housing in Lieu of Low-Income Housing Credit Allocations
59. Tax Credit Assistance Program
60. Indian Human Services
61. Older Americans Act Grants for Supportive Services and Senior Centers
62. Older Americans Act Family Caregiver Program
63. TANF social services
64. Child Support Enforcement

65. Community Services Block Grant
66. Child Care and Development Fund
67. Head Start HHS
68. Developmental Disabilities Support and Advocacy Grants
69. Foster Care
70. Adoption Assistance
71. Social Services Block Grant
72. Chafee Foster Care Independence Program
73. Emergency Food and Shelter Program
74. Legal Services Corporation
75. Supplemental Nutrition Assistance Program (SNAP) (employment and training component)
76. Community Service Employment for Older Americans
77. Workforce Investment Act (WIA) Adult Activities
78. Workforce Investment Act (WIA) Youth Activities
79. Social Services and Targeted Assistance for Refugees
80. Temporary Assistance for Needy Families (TANF) employment and training
81. Foster Grandparents
82. Job Corps
83. Weatherization Assistance Program

In Addition, Neither Includes Federal Transfer Programs Not Classified as Need-Based by the Congressional Research Service, But Really Are per Senate Budget Committee

84. Government disability benefits
85. Pension guarantee benefits
86. Student loan subsidies
87. Veterans benefits
88. Federal Fellowship grants
89. Lifeline free telephones

90. Compensation for survivors of public safety officers
91. Unemployment benefits for Federal employees
92. Compensation of victims of crime
93. Alaska permanent fund benefits
94. Disaster relief benefits
95. Radiation exposure compensation
96. Japanese interns redress benefits
97. Payment of anti-terrorism judgments
98. Compensation of victims of September 11
99. Federal education exchange benefits
100. Bureau of Indian Affairs benefits
101. Any other program with less than $100 million in annual spending.

Appendix C: Labor Effort, Year-by-year Data Sources

For each year, we computed the percent families in each quintile which had nobody working the previous year and the percent which were headed by a senior age 65 or over.

Year	Characteristic	Source
1965	Not working	Table 6.·--NUMBER OF EARNERS·-FAMILIES AND UNRELATED INDIVIDUALS BY TOTAL MONEY INCOME IN 1965, BY SIZE OF FAMILY, FOR THE UNITED STATES, FARM AND NONFARM Current Population Reports, Consumer Income, Income in 1965 for families and Persons in the United States, Series P-60, No. 51 January 12, 1967 https://www2.census.gov/prod2/popscan/p60-051.pdf
1965	65 and over	Table 3.--AGE OF HEAD--FAMILIES AND UNRELATED INDIVIDUALS BY TOTAL MONEY INCOME IN 1965, FOR THE UNITED STATES, FARM AND NONFARM Current Population Reports, Consumer Income, Income in 1965 for families and Persons in the United States, Series P-60, No. 51 January 12, 1967 https://www2.census.gov/prod2/popscan/p60-051.pdf
1975	Not working	Table 5.·--Selected Characteristics of Families -- Percent Distribution of Families by Total Money Income, Current Population Reports, Consumer Income, Money Income in 1975 for families and Persons in the U States, Series P-60, No. 105 June 1977 https://www2.census.gov/prod2/popscan/p60-105.pdf
1975	65 and over	Table 3.--AGE OF HEAD--FAMILIES AND UNRELATED INDIVIDUALS BY TOTAL MONEY INCOME IN 196S, FC UNITED STATES, FARM AND NONFARM Current Population Reports, Consumer Income, Money Income in 1975 for families and Persons in the U States, Series P-60, No. 105 June 1977 https://www2.census.gov/prod2/popscan/p60-105.pdf Number of Families by money income and number of earners
1987	Not working	U.S. Census Bureau, Printed Report Archives, Quintile Household Characteristics 1987 Inc.xlsx
1987	65 and over	U.S. Census Bureau, Printed Report Archives, Quintile Household Characteristics 1987 Inc.xlsx
1995	Not working	U.S. Census Bureau, Printed Report Archives, Quintile Household Characteristics 1987 Inc.xlsx
1995	65 and over	U.S. Census Bureau, Printed Report Archives, Quintile Household Characteristics 2005 Inc.xlsx
2005	Not working	U.S. Census, Current Population Survey – Annual Social and Economic Supplement March 2006, 2005 reference period, micro data tabulated by authors
2005	65 and over	U.S. Census, Current Population Survey – Annual Social and Economic Supplement March 2006, 2005 reference period, micro data tabulated by authors
2015	Not working	U.S. Census, Current Population Survey – Annual Social and Economic Supplement March 2016, 2015 reference period, micro data tabulated by authors
2010	65 and over	U.S. Census, Current Population Survey – Annual Social and Economic Supplement March 2016, 2015 reference period, micro data tabulated by authors