September 2015



151 Slater Street, Suite 710 Ottawa, Ontario K1P 5H3 Tel: 613-233-8891 Fax: 613-233-8250 csls@csls.ca

CENTRE FOR THE STUDY OF LIVING STANDARDS

ESTIMATION OF EU-COMPARABLE POVERTY-RELATED VARIABLES IN THE UNITED STATES, 1995-2014

Brendon Andrews, Jasmin Thomas and Nico Palesch

CSLS Research Report 2015-12

September 2015

Estimation of EU-Comparable Poverty-Related Variables in the United States, 1995-2014

Abstract

This report seeks to compare poverty rates and poverty gaps for the overall population, the elderly population and single-parent headed households in the United States and selected European Union (EU) countries. In order to make sure that our estimates for the United States, which are based on the United States' Current Population Survey (CPS) March Supplement, are directly comparable with EU estimates from Eurostat, we undertook a detailed study of the methodology underpinning Eurostat's poverty estimates, which are derived from the Survey of Income and Labour Conditions (EU-SILC). The outcomes of this paper are estimates six poverty-related variables including overall and elderly poverty gaps and poverty rates, as well as single parent headed household poverty gaps and the Gini coefficient. The results suggest that overall poverty, elderly poverty and single-parent headed household poverty is higher in the United States than in the average European country.

Estimation of EU-Comparable Poverty-Related Variables in the United States, 1995-2014

Table of Contents

Abstract	2
Fable of Contents	3
List of Tables and Charts	4
Executive Summary	5
[. Introduction	7
II. Methodology	8
III. Results	9
IV. Conclusion	15
V. References	17
Appendix A: Complete Methodology	18
Stata Code for CPS ASEC Microdata	26
Stata Code for LIS Microdata	28
Appendix B: Statistical Tables	29

List of Tables and Charts

Chart 1: Gini Coefficient, United States and Selected EU Countries, 1995-2014	10
Chart 2: Poverty Rate for All Persons, United States and Selected EU Countries, Per Cent,	
1995-2014	11
Chart 3: Average Poverty Gap Ratio for All Persons, United States and Selected EU Countries,	
Per Cent, 1995-2014	12
Chart 4: Elderly Poverty Rate (65+), United States and Selected EU Countries, Per Cent, 1995-	
2014	13
Chart 5: Elderly (65+) Average Poverty Gap Ratio, United States and Selected EU Countries,	
Per Cent, 1995-2014	14
Chart 6: Poverty Rate for Single Parent Households with Dependent Children, United States and	
Selected EU Countries, Per Cent, 1995-2014	15
Appendix A Table 1: Comparison of Disposable Income Components, EU-SILC and CPS	
ASEC	24
Appendix A Table 2: Current Population Survey Annual Social and Economic Supplement, List	
of Variables	25
Appendix B Table 1: Gini Coefficient, Poverty Rates and Poverty Gaps, Overall Population, Elderly Population, and Single Persons with Dependent Children, United States and Selected European Countries, 1995-2014	29
Appendix B Table 2: Gini Coefficient, United States and Selected European Countries, 1995-2014	30
Appendix B Table 3: Poverty Rate for All Persons, United States and Selected European	30
Countries, 1995-2014	31
Appendix B Table 4: Average Poverty Gap Ratio for All Persons, United States and Selected	
European Countries, 1995-2014	32
Appendix B Table 5: Poverty Rate for Elderly Persons, United States and Selected European	
Countries, 1995-2014	33
Appendix B Table 6: Average Poverty Gap Ratio for Elderly Persons, United States and	
Selected European Countries, 1995-2014	34
Appendix B Table 7: Poverty Rate for Single Parent Households with Dependent Children,	
United States and Selected European Countries, 1995-2014	35
Appendix B Table 8: Gini Coefficient, Overall and Elderly Poverty Rates as found by	
Luxembourg Income Study, United States, 1994-2014	
Appendix B Table 9: US Census Bureau Official Overall and Elderly Poverty RatesError! Bookma	ark not def

Estimation of EU-Comparable Poverty-Related Variables in the United States, 1995-2014

Executive Summary

As part of the Centre for the Study of Living Standards' regular updates to the *Index of Economic Well-Being*, this report seeks to make certain income distribution and poverty-related statistics comparable between the United States and eleven European countries, where differing definitions and methodologies underlying the official poverty rates make headline comparisons impossible. While the United States' poverty rate is calculated by the Census Bureau on an absolute basis, the European Union's (EU) Eurostat calculates poverty on a relative basis. This report uses Eurostat's definitions and methodologies, applied to the micro data available for the United States' Current Population Survey (CPS) Annual Social and Economic Supplement, which provides extensive, annual information on incomes in the United States. The specific statistics this report calculates are the Gini coefficient, the overall and elderly poverty rate is a relative measure with a threshold defined as 50 per cent of median income. The poverty gap is a measure of the depth of poverty and is calculated by dividing the average income of individuals in poverty by the poverty line and subtracting this value from one to find the 'gap' between income and the poverty threshold.

In order to calculate these statistics for the United States based on microdata we attempt to recreate the variables used in the European statistics for the United States. This process required careful analysis of the European dataset. This involved identification of United States equivalent variables representing household membership, disposable income, the equivalence scale, the dependency of children, the status of a single parent household, and old age. Once identified, these variables were distilled into the abovementioned statistics using Stata software. The specific commands, data, and methodology used are given in Appendix A.

This report finds that the United States has consistently higher poverty rates, poverty gaps, and a higher Gini coefficient over the 1995-2014 period than the selected European nations. Some key results are given below:

- The Gini coefficient for the United States increased from 0.368 in 1995 to 0.391 in 2007, and again to 0.397 in 2014. Most European nations over this time period saw decreases or constancy in their Gini coefficients.
- The overall poverty rate in the United States has been remarkably stable since 1995, hovering in the range of 16-17 per cent. All other European nations examined, with the exception of Spain in 2014, have far lower overall poverty rates, with variation from country to country as to whether or not the rates have been increasing or decreasing.

- The elderly poverty rate, while higher in the United States than any European nation, has been on a decrease in all examined nations since 2007, with the United States posting a fall of approximately 4 percentage points by 2014. However, the higher US starting point for elderly poverty in 2007, which at 20.3 per cent was significantly higher than examined European nations, still left the U.S. elderly poverty rate far above that of the average European nation.
- The poverty rate for single parent households has been among the most variable of all the computed statistics, increasing and decreasing rapidly in a number of European nations during the time period, though Spain is again the only nation to come close to the United States' rate for a sustained period of time. Even though the United States' poverty rate among single parent households has decreased since 1995 to approximately 40 per cent in 2014, it was still significantly higher than the European nations examined.
- The poverty gaps measured in this report are the gap for the overall population and for the elderly. The overall average poverty gap for the United States has increased steadily since 1995, from 31.6 per cent in 1995 to 34.1 in 2014. However, sharp increases in the poverty gaps of Denmark, Italy, Spain and Norway since 2009 have led those countries' average poverty gaps to increase to the point where they either exceed or come close to the US rate. Most other European nations have seen their average poverty gaps decrease or hold steady over this same time period at a far lower level, ending up at around 20 per cent in 2013.
- The United States' elderly average poverty gap ratio has remained fairly constant in the 1995-2014 time period, hovering just below 30 per cent. While the Netherlands and Denmark have seen sharp increases in their elderly poverty gaps in individual years that brought them close to or above the U.S. rate, these increases have so far always been matched by decreases in subsequent years, leaving the United States' rate the highest among the nations examined in this report.

Overall, we found that the United States has consistently had the highest poverty rates, gaps, and Gini coefficient scores amongst the 11 EU nations examined.

Estimation of EU-Comparable Poverty-Related Variables in the United States, 1995-2014¹

I. Introduction

This report was written as a part of the CSLS' regular updates to the *Index of Economic Well-Being*, which has been the focus of previous CSLS reports, including several by Osberg and Sharpe (2011a, 2011b, and 2014). The *Index of Economic Well-Being* (IEWB), which has been computed since the late 1990s by the Centre for the Study of Living Standards (CSLS), utilizes a number of income distribution and poverty-related variables, specifically the Gini coefficient as well as poverty rates and gaps for the overall population and specific subsections (Osberg and Sharpe, 2001). Previously these estimates were taken from the Luxembourg Income Study. However, these estimates are available only with a considerable lag and only for a small number of years. The availability of Statistics on Income and Living Conditions (SILC) for selected EU countries via the Eurostat portal however provides up-to-date annual estimates of poverty-related variables since 1995. It was decided to move to this data source, using SILC for EU poverty-based estimates, and to develop EU comparable estimates for the non-EU countries examined in the IEWB (the United States, Australia, and Canada.) This report develops the estimates for the United States. The methodology and results used to calculate data for the Australia-Europe comparisons can be found in another CSLS report (Andrews and Thomas, 2015).

The estimation of comparable poverty rates for the EU and the United States has been undertaken in the past. For example, Notten and De Neubourg (2011) present comparable estimates for 1993-2000 using the Panel Study of Income Dynamics (PSID), which shows the same broad trends in relative poverty in Europe and the United States as this report, but at higher levels. However, we were unable to locate poverty and income distribution estimates for the United States comparable to the European definitions for all years from 1995 to 2014. The Centre for the Study of Living Standards therefore embarked upon the task of computing these estimates. This report discusses the methodology used to estimate these numbers from the Annual Social and Economic (ASEC) Supplement of the Current Population Survey (CPS).

We use the CPS instead of the PSID for four reasons:

(1) The report for which these estimates were first developed, Osberg and Sharpe (2014), required annual estimates for each indicator in order to estimate the effect of the 'Great

¹ This report was written in two stages under the supervision of Andrew Sharpe. In stage one, Brendon Andrews estimated poverty trends in the United States with EU definitions in comparison with European Union countries from 1995 to 2010. In stage two, Nico Palesch and Jasmin Thomas calculated new poverty estimates for the United States for 2011 to 2014 and edited the text to reflect any changes in poverty trends since 2010. If there are any questions or comments about this report, please email jasmin.thomas@csls.ca.

Recession' on economic well-being. Unfortunately, the PSID has only produced estimates for every two years since 1997 (Notten and De Neubourg: 252).

(2) The Census Bureau uses the ASEC Supplement of the CPS to generate its absolute poverty estimates (Notten and De Neubourg: 252). Estimating relative poverty rates from this same source permits direct comparisons with the absolute measure computed by the Census Bureau.

(3) The sample size of the ASEC Supplement is very large, being composed of approximately 100,000 households, and will therefore provide estimates with a small margin of statistical error. In comparison, the PSID sample size was just under 10,000 in 2009.

We also use the CPS because:

(1) The micro-data for the ASEC Supplement of the CPS is available free online from the National Bureau of Economic Research (<u>http://nber.org/data/current-population-survey-data.html</u>). Programming files are also available that convert the database into SSPS, Stata and SAS datasets (<u>http://nber.org/data/cps_progs.html</u>).

The ASEC Supplement of the CPS therefore suits the needs of this report.

This report is divided into three main sections. The next section of this report very briefly details the methodology used to compute estimates for the United States which can be considered 'comparable' to the numbers taken from Eurostat for the eleven European countries in the sample. The third section describes the results obtained for the United States, comparing trends to those in the other countries in the sample. This report generates a time series from 1995 to 2014 for six income distribution and poverty variables based on disposable income: the Gini coefficient, the single person with dependent children poverty rate, and the poverty rates and average poverty gaps for all persons and for elderly persons for the United States, computed in a method comparable to that used by Eurostat for estimates from EU-SILC. The final section concludes.

II. Methodology

In order to compare the United States with European countries, we attempt to recreate the variables used in the European statistics for the United States. This process required careful analysis of the European dataset, using the Eurostat list of definitions and variables.² We then apply the closest match to these definitions from the ASEC Supplement files to estimate income statistics for the United States. For this process, we require concretization of several key concepts: household membership, disposable income, the equivalence scale, the dependent status of children, the status of a single parent household, and old age.

CODED2&StrLanguageCode=EN) and from Eurostat's SILC methodology guide

² Definitions of variables and methodology were taken from Eurostat's Concepts and Definitions Database (http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL_GLOSSARY&StrNom=

⁽http://ec.europa.eu/eurostat/web/income-and-living-conditions/methodology/main-concepts-definitions).

The Eurostat definition and criteria for household membership, as well as the household type, matched very closely to those provided in the CPS. The only exception to this was the category of 'unattached individuals living in group (non-private) residences,' identified in the CPS and not present in the SILC data. However, the inclusion of this type of household in the CPS data did not meaningfully change the comparison with the SILC data, due to the fact that only 50 of nearly 200,000 observations had this characteristic on average across all years in the sample.

In order to calculate disposable income we used the definition of disposable income components provided by Eurostat, adding together the income and benefit variables found in the CPS that corresponded to those in the SILC database. These included gross employee cash or near-cash income, gross cash benefits, pensions, old-age, survivors', sickness, and disability benefits, education-related allowances, income from renting property, family or children related allowances, housing allowances, inter-household cash transfers, interest and dividends, and income received by those under the age of 16. A full list of these and their component variables can be found in Table 1 of Appendix A. These components were added together to get total net income, from which state, federal, and property taxes were removed (incorporating elements such as tax credits and temporary stimulus) to get total disposable income.

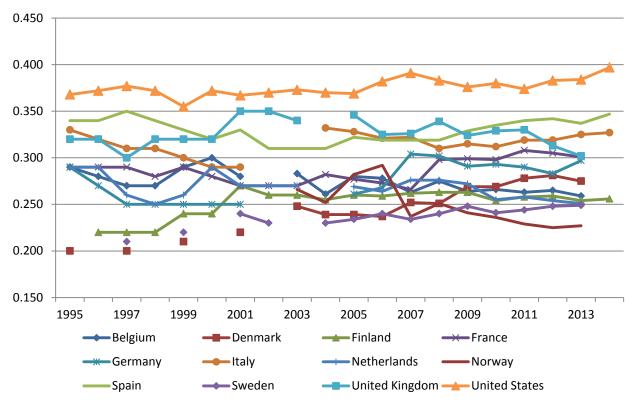
This report used the OECD equivalence scale, which assigns a value of 1.0 to the first adult, 0.5 to the second and each subsequent person aged 14 and over, and 0.3 to each child under 14. Disposal income is subsequently divided by the number of equivalent persons in order to obtain the value of equivalent disposable income for each individual in the household. We then sorted dependent children (defined in SILC as those under the age of 18) and economically inactive individuals (students, people who are unemployed, and retirees) in each household, as well as defining old-age status (i.e. persons 65 years and older) and single-parent households.

The abovementioned concepts were then run through a poverty program on Stata (detailed in Appendix A), which sorted the household types and persons in order to qualify or disqualify them from being counted towards the poverty and income distribution estimates generated, for example including all persons in the overall poverty rate but excluding those under the age of 65 for the elderly poverty rate.

These concepts and methodology, as described by Eurostat, and the CSLS method of calculating them using the ASEC supplement of the CPS are detailed in Appendix A.

III. Results

The six poverty and inequality related variables utilized in the IEWB by Osberg and Sharpe (2014) and computed for the United States in this report are the Gini coefficient, the single person with dependent children poverty rate, and the poverty rate and average poverty gap for all persons and for elderly persons (65 and over). The poverty gap is a measure of the depth of poverty and is calculated by dividing the average income of individuals in poverty by the poverty line and subtracting this value from one to find the 'gap' between income and the poverty threshold. All of these poverty indicators are calculated at the 50 per cent median equivalized threshold defined below in Appendix A, which ranges from \$11,570 in 1995 to \$13,666 in 2014. Appendix B provides a summary of the results for the United States and all the data used in the comparisons below. Note that all estimates for European nations are from Eurostat, and the specific reference for each can be found in Tables 2-8 in Appendix B. This section of the report presents the results we obtained for the United States in comparison with the Eurostat estimates used for eleven European nations.





Source: United States figures calculated by the CSLS using CPS March Supplement (ASEC); European figures from EUROSTAT.

The US Gini coefficient³ decreased from 0.368 in 1995 to 0.355 in 1999, and then increased over the following eight years, reaching a maximum of 0.391 in 2007 (Chart 1 and Appendix B Table 2).⁴ From 2007 until 2011 it fell to 0.374 – almost back to the level of 1995. Since then, there has been a marked increase in the Gini coefficient up to a high of 0.397 in 2014. The United States has, for the measured span of years, consistently had a more unequal income distribution than all of the European nations in the sample. Furthermore, the income

Note: values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

³ The estimate of the Gini coefficient was generated using the 'inequal' Stata command using top coded variables from the CPS Annual Social and Economic Supplement.

⁴ For a comparison of our estimates with official estimates from the United States and estimates from the Luxembourg Income Study, see table Appendix B Table 8.

distribution for the United States as measured by the Gini coefficient has increased significantly, up 0.029 points since 1995.

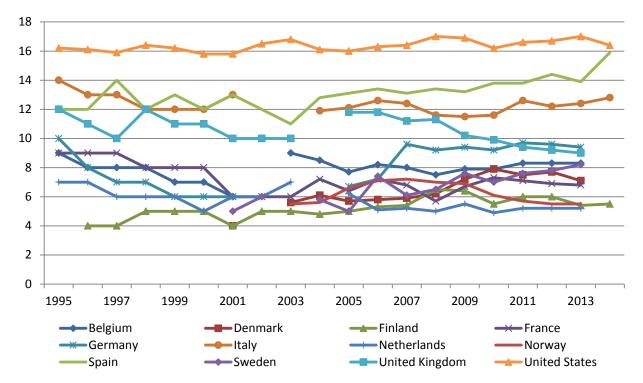


Chart 2: Poverty Rate for All Persons, United States and Selected EU Countries, Per Cent, 1995-2014

Note: values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Source: United States figures calculated by the CSLS using CPS March Supplement (ASEC); European figures from EUROSTAT.

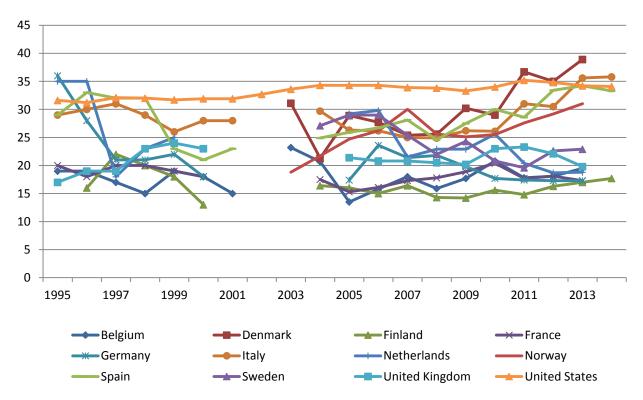
The threshold for the poverty rate calculation is defined as 50 per cent of median income. Hence, the poverty rate measures the proportion of households whose equivalized disposable income is less than 50 per cent of median equivalized income. The US overall poverty rate has been remarkably stable over the examined time period, increasing only 0.2 percentage points from 16.2 per cent in 1995 to 16.4 per cent in 2014 (Chart 2 and Appendix B Table 3). During this time period there has been slight variation, with the rate fluctuating between a minimum of 15.8 per cent in 2000 and 2001 per cent and a maximum of 17.0 per cent in 2008 and 2013. Similarly to, and perhaps related to, the higher Gini coefficient in the United States, the half-median poverty rate for all persons (or simply the 'poverty rate') has been higher in this country than in any other country in the sample for every year from 1995 to 2014.

In general the poverty rate in the United States has remained relatively stable compared to the other countries in the sample, with a range between 15.8 per cent and 17.0 percent in 19 years.⁵ This could be the result of any number of effects from state policies to the much larger

⁵ It should however be noted that this stability is also partially due to the relative nature of the poverty estimates presented in this report. The official Census Bureau poverty figures for the 1995-2014 time span, based on absolute thresholds rather than relative comparisons to median income, show poverty rates decreasing from 13.8 per cent in

sample size of the Current Population Survey compared to any of the European surveys conducted through EU-SILC (about 3,000-8,250 households per country, far smaller than the sample of 100,000 for the United States) – we expect less variance with a larger sample size. It is however clear that the United States has a higher poverty rate than any European nation covered in the sample for the whole duration of the examined time period. The only European country whose overall poverty rate rose to levels comparable to those of the United States during this time period is Spain, which in 2014 saw a spike in poverty levels to 15.9 per cent, which was 0.5 percentage points lower than the rate of the US at the time, the closest any European country has come to the US poverty rate.

Chart 3: Average Poverty Gap Ratio for All Persons, United States and Selected EU Countries, Per Cent, 1995-2014



Note: values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Source: United States figures calculated by the CSLS using CPS March Supplement (ASEC); European figures from EUROSTAT.

The average poverty gap ratio for all persons ('poverty gap') measures the depth of poverty and is calculated by dividing the average income of individuals in poverty by the poverty line and subtracting this value from one to find the 'gap' between income and the poverty threshold. The US overall gap ratio has increased from 31.6 per cent in 1995 to 34.3 per cent in 2004-2006, thereafter rising to a high of 35.2 per cent in 2011 and then falling again to 34.1 per cent by 2014 (Chart 3 and Appendix B Table 4). This gap has for most of the measured period been highest in the United States, with the notable exceptions being at the beginning and end of

¹⁹⁹⁵ to 11.3 per cent in 2000, then increasing slowly to 12.6 per cent in 2005 then increasing substantially to 14.5 per cent in 2013 after the onset of the recession in 2008.

the 1995-2014 time span. In 1995, the United States had a poverty gap of 31.6 per cent, well below the poverty gap of 36.0 per cent in Germany and the gap of 35.0 per cent in the Netherlands, and in 1996, Spain rose up to 33.0 per cent, making it higher or equivalent to the United States' rate until 1999, when the poverty gap in Spain fell dramatically. Since then the average poverty gap rose in the United States, keeping it the highest among the measured countries until 2011. This was due to sharp rises in the average poverty gaps in Denmark, Spain and Italy, which left Denmark and Italy with a higher average poverty gap than the United States post-2011 and very similar rates for the United States and Spain.

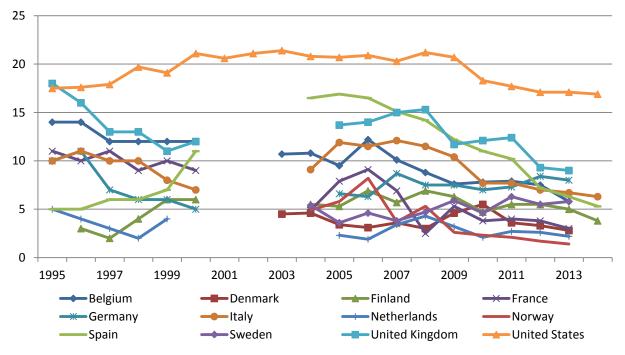


Chart 4: Elderly Poverty Rate (65+), United States and Selected EU Countries, Per Cent, 1995-2014

Note: values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Source: United States figures calculated by the CSLS using CPS March Supplement (ASEC); European figures from EUROSTAT.

The US elderly poverty rate has gone through three distinct phases since 1995 (Chart 4 and Appendix B Table 5). The first involved an increase in the rate from 17.5 per cent in 1995 to 21.1 per cent in 2000, the second saw the rate stay relatively constant, falling a bit and then rising back to 21.2 in 2008, and the third involved a large drop in the elderly poverty rate to 16.9 per cent in 2014.⁶ The elderly poverty rate has consistently been higher in the United States than in any of the other countries in the sample. Only at the beginning of the sample period did another country have a larger elderly poverty rate than the United States, namely 18.0 per cent in the United Kingdom versus 17.5 per cent in the United States in 1995. However, over the next

⁶ The official elderly poverty rate as released by the US Census Bureau during this same time period, based on absolute thresholds, shows a similar downward trend at a far lower level. According to these figures, elderly poverty fell steadily from 10.5 per cent in 1995 to 9.5 per cent in 2013.

⁽https://www.census.gov/hhes/www/poverty/data/incpovhlth/2013/figure5.pdf)

several years, the elderly poverty rate declined in the United Kingdom but steadily rose in the United States. From 2007 to 2013/14 most countries saw a fall in the elderly poverty rate, the cumulative effect of which was to leave the gap between European and American elderly poverty rates greater than ever in 2013. This was due to the higher starting point of the US elderly poverty rate, and the relatively modest decline seen since 2007 compared to some other European nations.

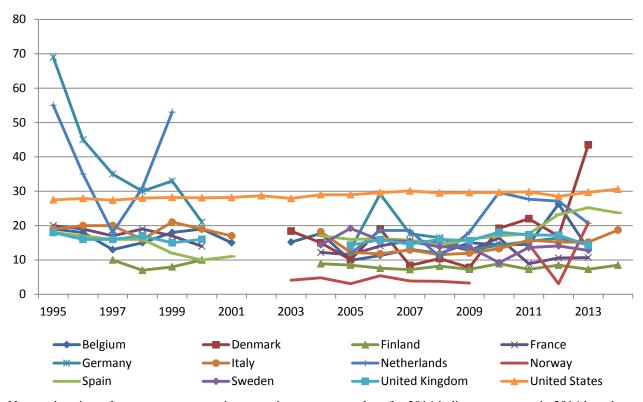


Chart 5: Elderly (65+) Average Poverty Gap Ratio, United States and Selected EU Countries, Per Cent, 1995-2014

Note: values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Source: United States figures calculated by the CSLS using CPS March Supplement (ASEC); European figures from EUROSTAT.

The average poverty gap ratio for elderly persons, those 65 years of age or older, (written hereafter as 'elderly poverty gap') has been quite stable in the United States for the entire sample period, slowly yet steadily increasing from 27.5 per cent in 1995 to 30.6 per cent in 2014 (Chart 5 and Appendix B Table 6). The United States has had the consistently highest elderly poverty gap, but several other countries, namely Germany, the Netherlands, and Denmark have all seen their elderly poverty gaps spike in individual years to equivalent or higher rates than in the United States. Given gaps in the data for Germany and the Netherlands in the early 2000s it is impossible to differentiate when they truly managed to drive the elderly poverty gap lower than that in the United States. However, regardless of the spikes in some countries' elderly poverty gap, the United States has seen a consistently higher rate than most other European nations over this time frame, which for the most part enjoyed similarly stable but substantially lower rates of elderly poverty.

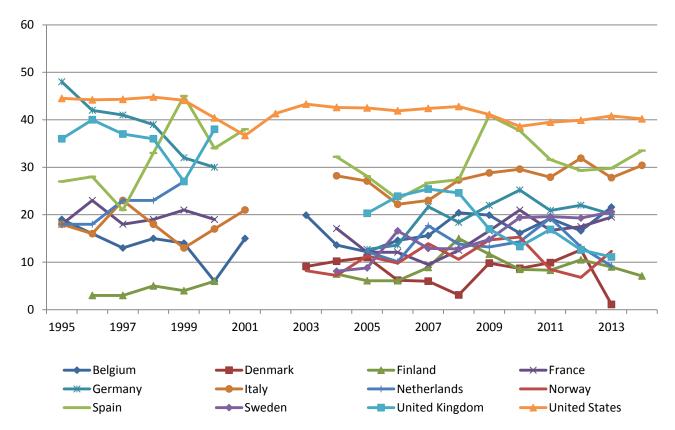


Chart 6: Poverty Rate for Single Parent Households with Dependent Children, United States and Selected EU Countries, Per Cent, 1995-2014

Note: values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Source: United States figures calculated by the CSLS using CPS March Supplement (ASEC); European figures from EUROSTAT.

The poverty rate for people living in single parent households (from this point forward referred to as the 'single parent poverty rate') in the United States, aside from an unsustained dip in 2001, has been on a slow decline since 1999, reaching 38.6 per cent in 2010, after which it rebounded somewhat to 40.2 per cent in 2014 (Chart 6 and Appendix B Table 7). The single parent poverty rate was almost always higher in the United States than in any other country in the sample. In 1995, the United States had a very high single parent poverty rate of 44.5 per cent – in fact, this is the highest it ever was in the United States during the sample period. Only Spain (in 1999, 2009 and 2010) and Germany (in 1995) experienced higher rates of single parent poverty over the sample period, though missing data for 2002 and 2003 in Spain indicate that it could have been higher in these years as well.

IV. Conclusion

This report compiled estimates of poverty rates and gaps for various target populations and calculated Gini coefficients for the United States from 1995 to 2014 in a comparable way to the standards used by Eurostat when calculating numbers from EU-SILC.

The income and poverty-related trends in the United States vary based on the exact indicator being calculated. The US Gini coefficient held relatively steady between 1995 and 2006, varying slightly around a value of 0.371, after which it increased to 0.391 in 2007 and 0.397 in 2014. The US overall poverty rate has been remarkably stable since 1995, increasing only 0.2 percentage points from 1995 to 2014, going from 16.2 per cent to 16.4 per cent. The US overall poverty gap has, in contrast to the overall rate, increased gradually over the course of the 20 measured years. From 1995 to 2001 the rate held steady between 31.6 per cent and 32.1 per cent, thereafter slowly rising to 34.1 per cent by 2014.

The elderly poverty rate in the United States has gone through three phases since 1995. From 1995 to 2000 the rate increased from 17.5 per cent to 21.2 per cent. From 2000 to 2008 the rate held steady between 20.3 per cent and 21.4 per cent, sustaining but not adding to the rate increases from 1995 to 2000; and from 2009 to 2014 the rate decreased by 3.8 percentage points to 16.9 per cent in 2014. This decrease was reflected in most other European nations at the time, meaning that although the United States rate fell, it remained substantially higher than any other nation examined. The elderly poverty gap has also been quite stable since 1995, holding steady between 27.4 per cent and 28.2 per cent between 1995 and 2002, after which it increased to 30 per cent and remained at or slightly below 30 per cent all the way through to 2014.

The US single parent poverty rate has been among the most volatile of the measured indicators, holding steady from 1995 to 1999, before falling precipitously in 2001. Another round of increases and decreases in the first decade of the twenty-first century lead to a rate of 40.2 per cent by 2014.

It should be noted that these estimates line up fairly consistently with those generated using the CSLS's previous data source for income and poverty-related variables, the Luxembourg Income Study. Though there is some variation, mostly in terms of the levels estimated by the two data sources, the two sources provide a relatively similar snapshot of poverty and income related variables, and tend to show similar trends in the development of these indicators since 1995, though the incomplete nature of the LIS data makes it difficult to get a true comparison. The estimates generated using the LIS data can be found in Appendix B Table 8, and the Stata code used to generate these estimates can be found in Appendix A.

It is clear that the United States has had, in almost all cases, higher poverty rates, higher poverty gaps, and a higher Gini coefficient than any of the other countries in the sample, though individual countries did overtake the United States for brief periods of time in individual estimators. Spain, Italy, the Netherlands and Denmark are the four European nations which saw increases in the individual measures that led them to come close to or higher than the US rate. Spain, Italy and Denmark saw their average poverty gap ratios increase in recent years to near, equal or higher than that of the US, while the Netherlands and Denmark saw their elderly average poverty gap ratios increase to comparable levels since 2009. Spain is the only European country that saw increases in overall and single parent poverty rates to levels comparable to the United States during the measured time period.

V. References

- Andrews, Brendon and Thomas, Jasmin (2015). "Estimation of EU-Comparable Poverty-Related Variables in Australia, 1995-2014." *Centre for the Study of Living Standards*, Report Number 2015-XX.
- Census Bureau (2010). March 2010: Annual Social and Economic (ASEC) Supplement. Accessed: 16 July 2012. Available: http://www.census.gov/apsd/techdoc/cps/cpsmar10.pdf
- Census Bureau (2005a). CPS ASEC 2005 Tax Model Documentation. Accessed: 16 July 2012. Available: <u>http://www.census.gov/hhes/www/income/publications/cpsasec2005taxmodeldoc.pdf</u>
- Census Bureau (2005b). March 2005: Annual Social and Economic (ASEC) Supplement. Accessed: 16 Jul. 2012. Available: <u>http://www.census.gov/apsd/techdoc/cps/cpsmar04.pdf</u>
- Notten, Geranda, and Chris De Neubourg (2011). Monitoring Absolute and Relative Poverty: "Not Enough" is not the same as "Much Less" *The Review of Income and Wealth:* 57(2). *June 2011*.
- Osberg, Lars and Sharpe, Andrew (2002). "An Index of Economic Well-Being for Selected OECD Countries." *Review of Income and Wealth*, 48(3), 291-316.
- Osberg and Sharpe (2011a). "Beyond GDP: Measuring Economic Well-being in Canada and the Provinces, 1981-2010." *Centre for the Study of Living Standards*, Report Number 2011-11.
- Osberg and Sharpe (2011b). "Moving from a GDP-based to a Well-being based Metric of Economic Performance and Social Progress: Results from the Index of Economic Wellbeing for OECD Countries, 1980-2009." *Centre for the Study of Living Standards*, Report Number 2011-12.
- Osberg and Sharpe (2014). "The Impact of the Great Recession on Economic Well-being: How Different are OECD Nations and Why? " in *Wellbeing: A Complete Reference Guide, Volume V, Economics of Wellbeing*. Edited by McDaid, David and Cooper, Cary L. (London: Wiley-Blackwell) pp 83-110. Originally presented at the 32nd IARIW General Conference in Boston, Massachusetts, United States, 7 Aug 2012, <u>http://www.csls.ca/reports/csls2012-03.pdf</u>.

Appendix A: Complete Methodology

A. Household Membership

Each statistical agency has its own definition of what constitutes a 'family' or a 'household' and a different rule concerning the unit used for poverty analysis. Eurostat uses the unit referred to as the 'private household,' which is a very inclusive unit for poverty analysis (compared to the Canadian definition of an economic family). The following excerpt is taken from the Eurostat (2012:¶3) list of definitions:

Household Membership

In EU-SILC the following persons are regarded as household members:

- 1. Persons usually resident, related to other members;
- 2. Persons usually resident, not related to other members;
- 3. Resident boarders, lodgers, tenants (for at least 6 months);
- 4. Visitors (for at least 6 months);
- 5. Live-in domestic servants, au-pairs (for at least 6 months);
- 6. Persons usually resident, but temporarily absent from the dwelling;
- 7. Children of the household being educated away from home;
- 8. Persons absent for long periods, but having household ties;
- 9. Persons temporarily absent (for less than six months) but having household ties.

Comparing this to the CPS data, there are very few households that do not qualify under this Eurostat definition. The one household type that does not meet these criteria are households composed solely of unattached individuals living in group (non-private) residences. Fortunately, the presence of these households in the preliminary estimates has a negligible effect, as only 50 of nearly 200,000 observations had this characteristic on average.⁷

B. Disposable Income

The measure of disposable income used in the Eurostat data includes a variety of cash and near-cash benefits. A summary list of these variables is found in the Eurostat (2012) definitions list for income and living conditions. These variables are listed in the leftmost column of Appendix A Table 1. Note that variables starting in 'P' refer to person-level data, variables starting in 'H' refer to household-level data, and variables starting in 'F' refer to family-level data. In order to calculate the nearest CPS ASEC Supplement equivalent (rightmost column of Appendix A Table 1), we take advantage of two documents available on the Eurostat webpage: (1) EU-SILC Description Target Variables: Household Data (H-file) (Eurostat, 2011a); and (2) EU-SILC Description Target Variables: Personal Data (P-file) (Eurostat, 2011b). The following paragraphs detail key issues with the calculation of disposable income; the breakdown of which CPS variables correspond to each EU variable can be found in Appendix A.

⁷ It is however unclear how the CPS data classifies certain cases, such as non-related roommates living together or other non-traditional arrangements. It is assumed that such cases are few in number and have a marginal effect on the overall estimates generated in this report. The estimates we present do not exclude this type.

We note that many variables in our gross income equation are top-coded in the ASEC Supplement; however, we argue that this is unlikely to have a large effect on the median of household disposable income, although it would have a large effect on the mean. Note also that person-level data was aggregated across individuals in the households and that family-level data was first aggregated across families before the components of gross income were summed. This ensures the income from every family and every person within the household is included in household gross income. Income taxes, wealth taxes, and "regular inter-household cash transfer paid" (Eurostat, 2011a:4) are then subtracted from this measure of gross income to achieve household disposable income.

The ASEC Supplement contains several income tax variables which must be subtracted from gross income to find disposable income. For March 2005-March 2011, these include both after-credit and before-credit tax liabilities for federal (FEDTAX_AC and FEDTAX_BC) and state (STATETAX_AC and STATETAX_BC) income taxes. We therefore use FEDTAX_AC and STATETAX_AC for March 2005-March 2011 as after-credit taxes are the amount of income taxes actually paid by the respondents. For March 1996-March 2004, the ASEC Supplement contains only the variables FED_TAX and STATETAX. It turns out that "FED_TAX = FEDTAX_AC + EIT_CRED" (Census Bureau, 2005a:Table 2). Thus, FEDTAX_AC = FED_TAX - EIT_CRED.

We therefore replace the variable FEDTAX_AC with FED_TAX – EIT_CRED for the ASEC Supplement files for March 1996-March 2004. The Census Bureau (2005a:Table 2) also notes that "STATETAX_AC is the same as STATETAX from previous years," and we therefore substitute STATETAX_AC with STATETAX for March 1996-March 2004. Mandatory payroll deductions in the form of FICA (social security) and FED_RET (federal retirement) are also subtracted from disposable income as regular taxes on income for all years from 1995 through 2014.

An additional consideration is made for income taxes in the ASEC Supplement for March 2009. In 2008, the United States government issued stimulus tax returns. For this reason, the value of the stimulus, given by the CPS variable STIMULUS was added to disposable income (or, equivalently, subtracted from the estimated tax burden).

In the ASEC Supplement of the CPS, the only discernible variable for taxes on wealth is PROP_TAX, an estimated value of the property taxes paid by each household. This variable is therefore subtracted from household disposable income for all years from 1995 through 2014. Finally, questions concerning regular inter-household transfers are asked in many survey years, but a variable of this nature was only introduced in the ASEC for March 2011. This variable, CHSP_VAL, gives the total value of all child support paid to another household. According to Eurostat (2011a:22) this variable should include only 'compulsory' payments and we therefore subtract CHSP_VAL only if these payments were required (CHSP_YN==1).

The income equation used in this report is therefore more comparable to that computed for estimates from EU-SILC than other possible disposable income aggregates. Unfortunately, the equation is not perfect. The CPS does not report every variable in EU-SILC and the questionnaires and definitions differ greatly. As such, several important components of the disposable income equation cannot be included in every year. An example of this problem is evident in the previous paragraph – child support paid was only available for the 2011 calendar year. The estimates in all other years can therefore be expected to suffer from a small margin of error onward. This report can therefore only use the 'nearest equivalent' to the EU-SILC definitions for each year. Nevertheless, this income equation was built using the EU-SILC structure and the calculation of income distribution and poverty estimates were also guided through the use of EU-SILC definitions of equivalence scale, single parent households with dependent children, and old age.

C. Equivalence Scale

The definitions list for income and living conditions (Eurostat, 2012:¶4) indicates that income is adjusted by the OECD equivalence scale. Their guidelines are taken and posted below:

OECD Equivalence Scale

1.0 to the first adult;0.5 to the second and each subsequent person aged 14 and over;0.3 to each child aged under 14.

We apply this equivalence scale using several variables from the ASEC Supplement. First, we generate a binary variable, "under14" which designates 1 for all those aged strictly less than 14 under the ASEC variable A_AGE (the person's age) and 0 otherwise. We then sum the total number of children aged under 14 to create the variable "hunder14" which is applied to every individual in the household. Next, the variable "hover14" designates the number of individuals in the household aged 14 or more. This variable is constructed as the difference of the ASEC variable H_NUMPER (total number of individuals in the household) and "hunder14". The number of equivalent persons ("esh") is then generated for two separate scenarios. First, in the event that there is at least one person aged 14 or over, we apply a value of 0.5 to each of these individuals, plus an additional 0.5 for the 'first' adult, plus 0.3 for each child aged less than 14. Second, in the unlikely event that there are no adults present, we apply a value of 0.3 for each individual plus an additional 0.7 for the first individual. Finally we divide disposable household income ("hdpi") by the number of equivalent persons to obtain "eyh," the value of equivalent disposable income for each individual in the household. The code, written for Stata, is presented below:

Code for OECD Equivalence Scale in the CPS ASEC Supplement gen under $14 = cond(A_AGE < 14, 1, 0)$ bysort PH_SEQ: egen hunder14 = sum(under14)gen hover $14 = H_NUMPER$ - hunder14gen esh = cond(hover14 > =1, 0.5*hover14 + 0.5 + 0.3*hunder14, 0.7 + hunder14*0.3) gen eyh = hdpi/esh

D. Dependency Status of Children

The poverty rate for single parents with dependent children hinges upon the definition of who qualifies as a dependent child and which households qualify as single-parent. This subsection determines the former and the next subsection deals with the latter definition. Section 3.4 (Statistical Concepts and Definitions) of Eurostat (2010) defines dependent children as "all persons aged less than 18…plus those economically inactive persons aged 18-24 living with at least one of their parents" (¶35). We also note from Eurostat (2010) that both full and part time employment counts as economically active, whereas the retired, unemployed, and students are among the economically inactive classifications. From Census Bureau (2010:7-22) we note the following value designations:

CPS ASEC Variable: A_LFSR

0 = "Children or Armed Forces"
1 = "Working"
2 = "With job, not at work"
3 = "Unemployed, looking for work"
4 = "Unemployed, on layoff"
7 = "Nilf" [Not in the labour force]

We consider any individual who is "unemployed, looking for work" or "unemployed, on layoff" or "not in the labour force" or "children or armed forces" as economically inactive. We apply these definitions to the CPS ASEC Supplement files by generating the binary variable "inact", which assigns a value of 1 to economically inactive individuals and 0 to other (economically active) individuals. We then define a dependent child using the variable "child" as an individual aged less than 18 years or as an economically inactive individual aged 18 to 24 living in the same household as at least one of their parents. The variable "child" calculates the sum of the number of dependent children living in each household.

Code for Dependent Children

gen inact = 1 if A_LFSR==3 | A_LFSR==4 | A_LFSR==7 | A_LFSR==0 gen child = 1 if A_AGE<18 | 18<=A_AGE<=24 & inact==1 & A_PARENT>0 bysort PH_SEQ: egen hchild = sum(child)

E. Status of Single Parent Households

The previous subsection provided the method to calculate the number of dependent children in a household. The single parent with dependent children household still requires the appropriate definition of what constitutes a 'single parent.' Osberg and Sharpe (2012) initially wanted poverty rates for single mothers with dependent children. In the Eurostat database, the closest variable was 'single person with dependent children' (Code: A1_DCH) and this report therefore adopts this definition. The key difference in these definitions is that the word 'mothers' has been replaced with 'person.' Indeed, Section 3.4 of Eurostat (2010) states that:

"Rather than focussing on 'couples' and/or 'families', the classification is constructed by reference to the numbers of adult members, their age and gender, and the numbers of dependent children living with them" (\P 17).

We therefore apply this definition and call this adult the 'parent' of these children regardless of the biological or familial ties they share. In order to determine if there is a unique 'parent,' the variable 'notch' calculates the number of individuals in the household who are not dependent children. If this value is equal to one, then this household qualifies under the above definition.

Code for Single Parent with Dependent Children Weight gen notch = H_NUMPER – hchild gen lpwt = MARSUPWT if hchild>0 & notch==1

We then calculate the weight "lpwt" to be used in our calculations as the weight given to the individual by the ASEC Supplement file – this ensures statistical corrections are accounted for – if the individual is a member of a household with a single adult and dependent children (hchild>0 and notch==1). This weight was then applied to the individual in the calculation of the single parent poverty rate and all other individuals therefore receive a weight of zero. The individuals considered part of a single person household with dependent children in the EU-SILC files have therefore been successfully isolated in the ASEC Supplement of the CPS.

F. Old Age Status

The elderly poverty rates and gaps that Osberg and Sharpe (2012) took from Eurostat were for individuals aged 65 years and above. We therefore calculate the elderly poverty rate from the CPS for individuals aged 65 years and above. In order to calculate weights, we sum the number of elderly people in a household to obtain "held." We then calculate the weight "owgt" as the weight given to the individual by the ASEC Supplement file if the person is aged 65 years or more. If the person is not elderly, the weight applied to that individual when calculating the elderly poverty rates and gaps will therefore be zero.

Code for Elderly Weight gen eld = 1 if A_AGE>=65 gen owgt = MARSUPWT if eld==1

G. Calculation of the Gini Coefficient and Five Poverty Variables

The equivalent household income is applied across individuals to calculate the Gini coefficient, the overall poverty rate and gap, the elderly poverty rate and gap, and the single parent poverty rate. The code for the Gini coefficient is displayed, followed by the code for the five 'poverty variables'. The 'inequal' function calculates a variety of distribution functions, including the Gini coefficient, for the variable specified. Although not a standard *Stata* variable, 'inequal' is part of a downloadable package that can be found by entering 'findit sg30' in Stata's command window and installing the sg30 package. The code 'inequal eyh' therefore calculates the Gini coefficient for all persons using equivalent disposable income. The poverty variables can also be calculated in Stata; however, the following code requires the installation package 'sg108' to function, which can be installed by entering 'findit sg108' into Stata's command window.

First, we note that the poverty threshold is calculated as 50 per cent of the median of *household* equivalent disposable income (Eurostat, 2012a:Line 11), but that the desired poverty rates and gaps are calculated across individuals. In order to appropriately define these lines, we must therefore use only one record from each household when calculating the threshold. This is accomplished by first assigning an observation number to each person in a household and assigning a weight of 1 to one individual in the household and 0 to everyone else in the

household under a weight named simply 'new'. Recall that everyone in a household has the same equivalent income – it is therefore irrelevant which individual is used in the calculation – for simplicity, we use the first individual. We then define a poverty program which establishes the poverty threshold as 50 per cent of the 50^{th} percentile (the median) of equivalent household disposable income ("eyh") using the weight 'new' across individuals. Note that this produces the same threshold as when the threshold is computed across households. The poverty function then calculates rates and gaps according to the weights assigned to each individual for each variable (either twgt, owgt, or lpwt).

Code for Total Persons Weight gen twgt = MARSUPWT

These weights contain information about the individual, such as whether the person qualifies as part of the target population for a particular indicator. The weights for single parents with dependent children and for elderly persons were defined earlier as part of the CPS-SILC alignment process. The weight for total persons is defined simply as the March supplement weight (as above). The coding for the poverty program is presented below.

Code for Poverty Variables in the CPS ASEC Supplement

bysort PH_SEQ: gen hpn = _n gen new = 0replace new = 1 if hpn == 1save "\\csls-3\...\CPS\March2011\2010\CPS2010h.dta", replace *POVERTY PROGRAM global keepit "seyh new eyh lpwt owgt twgt H_NUMPER" program define pov use \$keepit using "\\csls-3\...\CPS\March2011\2010\CPS2010h.dta", clear drop if eyh<0 _pctile eyh[aw=new], p(50) local povline = $r(r1)^*.5$ di "Results for the total population" poverty eyh [aw=twgt], line(`povline') h igr di "Results for the elderly" poverty eyh [aw=owgt], line(`povline') h igr di "Results for Lone Parents" poverty eyh [aw=lpwt], line(`povline') h igr end foreach file in "\\csls-3\...\CPS\March2011\2010\CPS2010h.dta"{ global data "`file'" di "\$data" pov }

EU Variable	EU Variable Name	Nearest CPS ASEC Supplement Equivalent
PY010G	Gross Employee Cash Or Near-Cash Income	WSAL_VAL + OI_VAL if OI_OFF=={15, 16, 19} (We include 19 because this includes benefits not strictly defined as social benefits)
PY021G	Company Car	n/a
PY050G	Gross Cash Benefits Or Losses From Self- Employment Including Royalties	SEMP_VAL + FRSE_VAL + OI_VAL if OI_OFF=={17, 18} + OI_VAL if OI_OFF==7 & the value is from royalties
PY080G	Pensions Received From Individual Private Plans (Other Than Those Covered Under ESSPROS)	RTM_VAL1 if RTM_SC1>=6 + RTM_VAL2 if RTM_SC2>=6 + + OI_VAL if OI_OFF=={2, 13}
PY090G	Unemployment Benefits	UC_VAL + OI_VAL if OI_OFF=={11,12}
PY100G	Old-Age Benefits	RTM_VAL1 if RTM_SC1<=5 + RTM_VAL2 if RTM_SC2<=5 + VET_VAL if VET_TYP3==1 & VET_TYP1==0 & VET_TYP2==0 & VET_TYP4==0 & VET_TYP5==0
PY110G	Survivors' Benefits	SRVS_VAL + VET_VAL if VET_TYP2==1 & VET_TYP1==0 & VET_TYP3==0 & VET_TYP4==0 & VET_TYP5==0 + + OI_VAL if OI_OFF=={8}
PY120G	Sickness Benefits	WC_VAL
PY130G	Disability Benefits	DSAB_VAL + VET_VAL if VET_TYP1==1 & VET_TYP2==0 & VET_TYP3==0 & VET_TYP4==0 & VET_TYP5==0 + OI_VAL if OI_OFF=={9,10}
PY140G	Education-Related Allowances	ED_VAL + VET_VAL if VET_TYP4==1 & VET_TYP1==0 & VET_TYP2==0 & VET_TYP3==0 & VET_TYP5==0
HY040G	Income From Rental Of A Property Or Land	RNT_VAL + OI_VAL if OI_OFF==7 and the value is from rents
HY050G	Family/Children Related Allowances	n/a
HY060G	Social Exclusion Not Elsewhere Classified	HFDVAL** (household) + SS_VAL + SSI_VAL + PAW_VAL + VET_VAL if VET_TYP5==1 & VET_TYP1==0 & VET_TYP2==0 & VET_TYP3==0 & VET_TYP4==0 OR IF more than one of VET_TYP1==1, VET_TYP2==1, VET_TYP3==1, VET_TYP4==1, VET_TYP5==1 holds + OI_VAL if OI_OFF=={1,3,4}
HY070G	Housing Allowances	HENGVAL + FHOUSSUB (family variable)
HY080G	Regular Inter-Household Cash Transfers Received	CSP_VAL + ALM_VAL + FIN_VAL
HY090G	Interests, Dividends, Profit From Capital Investment In Unincorporated Business	INT_VAL + DIV_VAL + OI_VAL if OI_OFF=={5,6}
HY110G	Income Received By People Aged Under 16	Calculate the other components for all individuals under the age of 16.
Sum: HY010	Total Household Gross Income Hy010 = Sum Of The Above.	FHOUSSUB (family) + HFDVAL (household) + WSAL_VAL + SEMP_VAL + FRSE_VAL + RTM_VAL + UC_VAL + VET_VAL + SRVS_VAL + WC_VAI + DSAB_VAL + ED_VAL + RNT_VAL + SS_VAL + SSI_VAL + PAW_VAL + HENGVAL (household) + CSP_VAL + ALM_VAL + INT_VAL + DIV_VAI + FIN_VAL + OI_VAL (although OI_OFF=14 is "not income" we include it her as it is a category of "other income." These are contradicting statements; however we do not expect a major effect on our results.

Appendix A Table 1: Comparison of Disposable Income Components, EU-SILC and CPS ASEC

Source: Authors' calculations.

Variable	Definition
A_AGE	Age
A_LFSR	Labour force status recode
ALM_VAL	Alimony income received
CHSP_YN	Child support to be paid
CHSP_VAL	Child support paid amount
CSP_VAL	Child support payments value
DIV_VAL	Stock dividends value
DSAB_VAL	Disability income, total
ED_VAL	Educational Assistance, total value
FEDTAX_AC	Federal income tax liability, after all credits
FED_Ret	Federal retirement payroll deduction
FHOUSSUB	Family market value of housing subsidy
FICA	Social Security retirement payroll
FIN_VAL	Financial assistance income amount
FRSE_VAL	Farm self-employment earnings, total value
H_NUMPER	Total number of individuals in the household
HENGVAL	Energy assistance income
HFDVAL	Food stamps value
INT_VAL	Interest income received, amount
MARSUPWT	March supplement final weight
OI_OFF	Income sources, other
OI_VAL	Income, other (amount)
PAW_VAL	Public assistance or welfare value received
PHF_SEQ	Sequence number pointer to own family record in household
PROP_TAX	Property taxes paid
SEMP_VAL	Own business self-employment earnings, total value
SS_VAL	Social Security payments received, value
SSI_VAL	Supplemental Security income amount received
STATETAX_AC	State income tax liability, after credits
STIMULUS	Stimulus tax credits, amount
SRVS_VAL	Survivor's income received, total
RNT_VAL	Rent income amount
RTM_VAL	Retirement income received, total amount
UC_VAL	Unemployment compensation benefits value
VET_TYP1	Veterans payments, type 1
VET_TYP2	Veterans payments, type 2
VET_TYP3	Veterans payments, type 3
VET_TYP4	Veterans payments, type 4
VET_VAL	Veterans payments income
WC_VAL	Worker's compensation payments, value
WSAL_VAL	Total wage and salary earnings value

Appendix A Table 2: Current Population Survey Annual Social and Economic Supplement, List of Variables

Source: United States Census Bureau. Available: https://www.census.gov/prod/techdoc/cps/cpsmar13.pd

Stata Code for CPS ASEC Microdata

Five Components:

- 1. What is the household?
- 2. What is disposable income?
- 3. What is the equivalence scale?
- 4. Who classifies as single with dependent children?
- 5. How are the elderly households defined?

log using "\\csls-3\...\CPS\March2011\2010\CPS2010.txt", replace set mem 1000m use "\\csls-3\...\CPS\March2011\2010\CPS2010.dta"

1. What is the household? You may need to drop collective households.

sum MARSUPWT drop if HMHTYPE==10

2. What is disposable income?

gen gi = WSAL_VAL + SEMP_VAL + FRSE_VAL + UC_VAL + WC_VAL + SS_VAL + SSI_VAL + PAW_VAL + VET_VAL + SRVS_VAL + DSAB_VAL + RTM_VAL + INT_VAL + DIV_VAL + RNT_VAL + ED_VAL + CSP_VAL + ALM_VAL + FIN_VAL + OI_VAL gen ptax = FEDTAX_AC + STATETAX_AC + FICA + FED_RET

Note that this command is only required in 2011 and beyond: gen mcsp = cond(CHSP_YN==1, CHSP_VAL, 0)

gen dpi = gi - ptax – mcsp Note that in 2009, 'stimulus' must be added to this command to make: gen dpi = gi - ptax – mcsp + stimulus.

Note that from 2005 to 2010, the command is: gen dpi = gi – ptax.

bysort PH_SEQ: egen hi = sum(dpi) bysort PH_SEQ: egen numfam = max(PHF_SEQ) bysort PH_SEQ PHF_SEQ: gen fpn = _n gen chsub = cond(fpn==1, FHOUSSUB*12, 0) bysort PH_SEQ: gen hhsub = sum(chsub) sum hhsub gen hdpi = hi + HENGVAL + HFDVAL - PROP_TAX + hhsub gen shdpi = hi + HENGVAL + HFDVAL - PROP_TAX

3. What is the equivalence scale? Use the OECD Equivalence Scale.

gen under14 = $cond(A_AGE<14, 1, 0)$ bysort PH_SEQ: egen hunder14 = sum(under14)gen hover14 = H_NUMPER - hunder14 gen esh = cond(hover14>=1, 0.5*hover14 + 0.5 + 0.3*hunder14, 0.7 + hunder14*0.3)gen eyh = hdpi/esh gen seyh = shdpi/esh

4. Who classifies as single with dependent children?

gen inact = 1 if A_LFSR==3 | A_LFSR==4 | A_LFSR==7 | A_LFSR==0 gen child = 1 if A_AGE<18 | 18<=A_AGE<=24 & inact==1 & A_PARENT>0 bysort PH_SEQ: egen hchild = sum(child) gen notch = H_NUMPER – hchild

5. How are the elderly defined? Those aged 65 years and above.

gen eld = 1 if A_AGE>=65 bysort PH_SEQ: egen held = sum(eld) gen owgt = MARSUPWT if eld==1 gen twgt = MARSUPWT gen lpwt = MARSUPWT if hchild>0 & notch==1 bysort PH_SEQ: gen hpn = _n inequal eyh inequal seyh save "\\csls-3\...\CPS\March2011\2010\CPS2010p.dta", replace gen new = 0 replace new = 1 if hpn == 1

save "\\csls-3\...\CPS\March2011\2010\CPS2010h.dta", replace

Poverty Program (Using Disposable Income)

```
global keepit "seyh new eyh lpwt owgt twgt H_NUMPER"
program define pov
use $keepit using "\\csls-3\...\CPS\March2011\2010\CPS2010h.dta", clear
drop if eyh<0
_pctile eyh[aw=new], p(50)
local povline = r(r1)*.5
di "Results for the total population"
poverty ey [aw=twgt], line(`povline') h igr
di "Results for the elderly"
poverty ey [aw=owgt], line(`povline') h igr
di "Results for Lone Parents"
poverty ey [aw=lpwt], line(`povline') h igr
end
foreach file in "\\csls-3\...\CPS\March2011\2010\CPS2010h.dta" {
global data "`file"
di "$data"
pov
}
```

Stata Code for LIS Microdata

Note: for each year, the bolded text must be changed to us##, where ## represents the two-digit code for the year.

```
use hpopwgt npers dpi if (!mi(dpi) & !(dpi==0)) using $us94h, clear

* Per capita income

gen ypc = dpi/npers

* Equivalised income

gen ey=(dpi/(npers^0.5))

sum dpi [w=hpopwgt]

sum ypc ey [w=hpopwgt*npers]

bysort npers: sum dpi [w=hpopwgt] if npers<=7

bysort npers: sum ypc ey [w=hpopwgt*npers] if npers<=7
```

global keepit "hpopwgt svyunit npers nhhmem17 nhhmem65 hpartner dpi" program define pov use \$keepit using \$data, clear drop if dpi==. | dpi==0 gen ey=(dpi/(npers^0.5)) _pctile ey [w=hpopwgt*npers], p(50) local povline = r(r1)*.5

```
gen lpwt = hpopwgt*npers if nhhmem17>0 & hpartner==200
```

```
di "Results for the total population"
poverty ey [aw=hpopwgt*npers], line(`povline') h igr
di "Results for the elderly"
poverty ey [aw= hpopwgt*(nhhmem65)], line(`povline') h igr
di "Results for Lone Mothers"
poverty ey [aw=lpwt], line(`povline') h igr
```

end foreach file in \$us94h { global data "`file'" di "\$data" pov }

Elderly **Single Person with** Overall Overall Elderly Gini Povertv Povertv Povertv Povertv **Dependent Children** Coefficient Rate Rate **Poverty Rate** Gap Gap 1995 0.368 16.2 17.5 27.5 44.5 31.6 1996 0.372 16.1 31.2 17.6 27.9 44.2 1997 0.377 15.9 32.1 44.3 17.9 27.4 1998 0.372 32.0 28.0 44.8 16.4 19.7 1999 0.355 16.2 31.7 19.1 28.2 44.1 2000 0.372 15.8 31.9 21.1 28.1 40.4 2001 0.367 15.8 31.9 20.6 28.2 36.7 0.370 2002 16.5 32.7 21.1 28.7 41.3 0.373 27.9 43.3 2003 16.8 33.6 21.4 0.370 34.3 42.6 2004 16.1 20.8 29.0 2005 0.369 16.0 34.3 29.0 42.5 20.7 2006 0.382 16.2 34.3 20.9 29.6 41.9 2007 0.391 16.4 33.9 20.3 30.1 42.4 2008 0.383 17.0 33.8 21.2 29.5 42.8 2009 0.376 16.9 33.3 20.7 29.6 41.1 2010 0.380 16.2 34.0 18.3 29.7 38.6 2011 0.374 16.6 35.2 17.7 29.8 39.5 39.9 2012 0.383 16.7 34.8 17.1 28.5 29.7 40.8 2013 0.384 17.0 34.2 17.1 2014 0.397 16.4 34.1 16.9 30.6 40.2 Absolute 0.029 0.2 2.5 -0.6 3.1 - 4.3 Difference Variance 0.000087 0.142526 1.511026 2.792921 0.872105 4.723658 0.376 16.4 33.2 19.4 28.9 Mean 41.8 Coefficient 0.009 0.378 1.229 1.671 0.934 2.173 of Variation

Appendix B Table 1: Gini Coefficient, Poverty Rates and Poverty Gaps, Overall Population, Elderly Population, and Single Persons with Dependent Children, United States, 1995-2014

Source: Authors' calculations based on CPS ASEC.

Appendix B: Statistical Tables

Note: Absolute difference refers to the difference between the 2014 and 1995 values. Values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Year	United States	Unweighted European Average	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingdom
1995	0.368	0.294	0.290	0.200	n/a	0.290	0.290	0.330	0.290	n/a	0.340	n/a	0.320
1996	0.372	0.291	0.280	n/a	0.220	0.290	0.270	0.320	0.290	n/a	0.340	n/a	0.320
1997	0.377	0.266	0.270	0.200	0.220	0.290	0.250	0.310	0.260	n/a	0.350	0.210	0.300
1998	0.372	0.280	0.270	n/a	0.220	0.280	0.250	0.310	0.250	n/a	0.340	n/a	0.320
1999	0.355	0.271	0.290	0.210	0.240	0.290	0.250	0.300	0.260	n/a	0.330	0.220	0.320
2000	0.372	0.286	0.300	n/a	0.240	0.280	0.250	0.290	0.290	n/a	0.320	n/a	0.320
2001	0.367	0.277	0.280	0.220	0.270	0.270	0.250	0.290	0.270	n/a	0.330	0.240	0.350
2002	0.370	0.282	n/a	n/a	0.260	0.270	n/a	n/a	0.270	n/a	0.310	0.230	0.350
2003	0.373	0.281	0.283	0.248	0.260	0.270	n/a	n/a	0.270	0.266	0.310	n/a	0.340
2004	0.370	0.270	0.261	0.239	0.255	0.282	n/a	0.332	n/a	0.252	0.310	0.230	n/a
2005	0.369	0.282	0.280	0.239	0.260	0.277	0.261	0.328	0.269	0.282	0.322	0.234	0.346
2006	0.382	0.280	0.278	0.237	0.259	0.273	0.268	0.321	0.264	0.292	0.319	0.240	0.325
2007	0.391	0.278	0.263	0.252	0.262	0.266	0.304	0.322	0.276	0.237	0.319	0.234	0.326
2008	0.383	0.284	0.275	0.251	0.263	0.298	0.302	0.310	0.276	0.251	0.319	0.240	0.339
2009	0.376	0.283	0.264	0.269	0.263	0.299	0.291	0.315	0.272	0.241	0.329	0.248	0.324
2010	0.380	0.281	0.266	0.269	0.254	0.298	0.293	0.312	0.255	0.236	0.335	0.241	0.329
2011	0.374	0.283	0.263	0.278	0.258	0.308	0.290	0.319	0.258	0.229	0.340	0.244	0.330
2012	0.383	0.281	0.265	0.281	0.259	0.305	0.283	0.319	0.254	0.225	0.342	0.248	0.313
2013	0.384	0.280	0.259	0.275	0.254	0.301	0.297	0.325	0.251	0.227	0.337	0.249	0.302
2014	0.397	n/a	n/a	n/a	0.256	n/a	n/a	0.327	n/a	n/a	0.347	n/a	n/a
Absolute Difference	0.029	-0.014	-0.031	0.075	0.056	0.011	0.007	-0.003	-0.039	-0.039	0.007	0.039	-0.018
Variance	0.00008	0.00004	0.00013	0.00075	0.00024	0.00017	0.00043	0.00015	0.00016	0.00050	0.00015	0.00012	0.00020

Appendix B Table 2: Gini Coefficient, United States and Selected European Countries, 1995-2014

Source: Figures for the United States derived from authors' calculations from the CPS, other countries taken from Eurostat (ilc_di12). Note: Absolute difference refers to the difference between the 2014 and 1995 values - where these are not available the latest and earliest available figures are used in their place. Values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Year	United States	Unweighted European Average	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingdom
1995	16.2	10.4	9	n/a	n/a	9	10	14	7	n/a	12	n/a	12
1996	16.1	9.0	8	n/a	4	9	8	13	7	n/a	12	n/a	11
1997	15.9	8.9	8	n/a	4	9	7	13	6	n/a	14	n/a	10
1998	16.4	8.8	8	n/a	5	8	7	12	6	n/a	12	n/a	12
1999	16.2	8.5	7	n/a	5	8	6	12	6	n/a	13	n/a	11
2000	15.8	8.3	7	n/a	5	8	6	12	5	n/a	12	n/a	11
2001	15.8	7.3	6	4	4	6	6	13	6	n/a	13	5	10
2002	16.5	7.5	n/a	n/a	5	6	n/a	n/a	6	n/a	12	6	10
2003	16.8	7.4	9.0	5.6	5	6	n/a	n/a	7	5.5	11	n/a	10
2004	16.1	7.8	8.5	6.1	4.8	7.2	n/a	11.9	n/a	5.6	12.8	5.8	n/a
2005	16.0	7.8	7.7	5.7	5.0	6.4	6.7	12.1	6.2	6.6	12.9	5.0	11.8
2006	16.3	8.3	8.2	5.8	5.3	7.2	7.2	12.6	5.1	7.1	13.1	7.4	11.8
2007	16.4	8.2	8.0	5.9	5.4	6.8	9.6	12.4	5.2	7.2	12.9	6.1	11.2
2008	17.0	8.1	7.5	6.2	6.5	5.8	9.2	11.6	5.0	7.0	12.7	6.5	11.3
2009	16.9	8.4	7.9	7.2	6.4	6.7	9.4	11.5	5.5	6.9	13.3	7.6	10.2
2010	16.2	8.3	7.9	7.9	5.5	7.5	9.2	11.6	4.9	6.1	14.4	7.0	9.8
2011	16.6	8.4	8.3	7.5	6.0	7.1	9.7	12.6	5.2	5.7	13.8	7.6	9.4
2012	16.7	8.4	8.3	7.7	6.0	6.9	9.6	12.2	5.2	5.5	14.4	7.8	9.2
2013	17.0	8.3	8.3	7.1	5.4	6.8	9.4	12.4	5.2	5.5	13.9	8.2	9.0
2014	16.4	n/a	n/a	n/a	5.5	n/a	n/a	12.8	n/a	n/a	15.9	n/a	n/a
Absolute Difference	0.2	-2.1	-0.7	3.1	1.5	-2.2	-0.6	-1.2	-1.8	0.0	3.9	3.2	-3.0
Variance	0.14134	0.47704	0.51830	1.26447	0.52222	1.07228	2.32600	0.40095	0.51441	0.51673	1.26155	1.19333	0.96056

Appendix B Table 3: Poverty Rate for All Persons, United States and Selected European Countries, 1995-2014

Source: Figures for the United States derived from authors' calculations from the CPS, other countries taken from Eurostat (ilc_li02).

Year	United States	Unweighted European Average	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingdom
1995	31.6	26.4	19	n/a	n/a	20	36	29	35	n/a	29	n/a	17
1996	31.2	24.8	19	n/a	16	18	28	30	35	n/a	33	n/a	19
1997	32.1	22.5	17	n/a	22	20	21	31	18	n/a	32	n/a	19
1998	32.0	22.9	15	n/a	20	20	21	29	23	n/a	32	n/a	23
1999	31.7	22.0	19	n/a	18	19	22	26	25	n/a	23	n/a	24
2000	31.9	19.9	18	n/a	13	18	18	28	n/a	n/a	21	n/a	23
2001	31.9	22.0	15	n/a	n/a	n/a	n/a	28	n/a	n/a	23	n/a	n/a
2002	32.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	33.6	24.4	23.2	31.1	n/a	n/a	n/a	n/a	n/a	18.8	n/a	n/a	n/a
2004	34.3	22.4	20.7	21.3	16.4	17.5	n/a	29.7	n/a	21.7	24.9	27.1	n/a
2005	34.3	22.5	13.5	28.9	16.0	15.3	17.4	26.3	29.2	24.7	25.9	29.0	21.4
2006	34.3	23.4	15.8	27.7	15.0	16.1	23.6	26.2	29.8	26.2	26.7	29.0	20.8
2007	33.9	23.0	18.0	25.4	16.4	21.4	21.4	24.9	21.5	30.0	28.1	25.4	20.8
2008	33.8	21.8	15.9	25.6	14.3	21.8	21.8	24.9	22.9	25.6	24.6	22.0	20.5
2009	33.3	22.5	17.7	30.2	14.2	19.8	19.8	26.2	22.9	25.1	27.5	24.3	20.2
2010	34.0	22.9	20.8	29.0	15.6	17.7	17.7	26.1	25.6	25.5	30.0	20.8	23.0
2011	35.2	23.2	17.8	36.7	14.8	17.7	17.4	31.0	20.4	27.6	28.6	19.6	23.3
2012	34.8	23.8	18.1	35.0	16.3	18.1	17.3	30.5	18.7	29.2	33.4	22.6	22.1
2013	34.2	24.8	19.5	38.9	17.0	17.3	17.3	35.6	18.8	31.0	34.2	22.9	19.8
2014	34.1	n/a	n/a	n/a	17.7	n/a	n/a	35.8	n/a	n/a	33.3	n/a	n/a
Absolute Difference	2.5	-1.7	0.5	7.8	1.7	-2.7	-18.7	6.8	-16.2	12.2	4.3	-4.2	2.8
Variance	1.51103	2.04756	5.64732	27.40564	5.01496	3.21262	25.40838	10.39634	31.78000	12.70473	16.61 438	10.85567	3.84495

Appendix B Table 4: Average Poverty Gap Ratio for All Persons, United States and Selected European Countries, 1995-2014

Source: Figures for the United States derived from authors' calculations from the CPS, other countries taken from Eurostat (ilc_li11)

Appendix B Table 5: Poverty Rate for Elderly Person	s, United States and Selected European Countries, 1995-2014
---	---

Year	United States	Unweighted European Average	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingdom
1995	17.5	10.4	14	n/a	n/a	11	10	10	5	n/a	5	n/a	18
1996	17.6	9.3	14	n/a	3	10	11	11	4	n/a	5	n/a	16
1997	17.9	8.0	12	n/a	2	11	7	10	3	n/a	6	n/a	13
1998	19.7	7.8	12	n/a	4	9	6	10	2	n/a	6	n/a	13
1999	19.1	8.0	12	n/a	6	10	6	8	4	n/a	7	n/a	11
2000	21.1	8.9	12	n/a	6	9	5	7	n/a	n/a	11	n/a	12
2001	20.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	21.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	21.4	6.9	10.7	4.5	n/a	n/a	n/a	n/a	n/a	5.4	n/a	n/a	n/a
2004	20.8	7.8	10.8	4.6	5.5	4.9	n/a	9.1	n/a	4.9	17.0	5.4	n/a
2005	20.7	8.0	9.5	3.4	5.3	7.9	6.6	11.9	2.3	5.8	17.8	3.6	13.7
2006	20.9	8.8	12.2	3.1	6.9	9.1	6.3	11.5	1.9	8.2	18.7	4.6	14.0
2007	20.3	8.1	10.1	3.6	5.7	6.9	8.7	12.1	3.4	3.7	16.2	3.8	15.0
2008	21.2	7.7	8.8	3.0	6.9	2.5	7.5	11.5	4.3	5.3	15.2	4.7	15.3
2009	20.7	7.2	7.6	4.6	6.3	5.3	7.5	10.4	3.2	2.6	14.4	5.9	11.7
2010	18.3	6.3	7.8	5.5	4.7	4.6	7.0	7.7	2.1	2.3	10.8	4.6	12.1
2011	17.7	6.3	7.9	3.6	5.5	4.0	7.3	7.7	2.7	2.1	10.2	6.3	12.4
2012	17.1	5.6	7.5	3.3	5.5	3.8	8.4	7.0	2.6	1.7	7.2	5.5	9.3
2013	17.1	5.1	5.8	2.8	5.0	3.0	8.0	6.7	2.2	1.4	6.3	5.8	9.0
2014	16.9	n/a	n/a	n/a	3.8	n/a	n/a	6.3	n/a	n/a	5.3	n/a	n/a
Absolute Difference	-0.6	-5.3	-8.2	-1.7	0.8	-8.0	-2.0	-3.7	-2.8	-4.0	0.3	0.4	-9.0
Variance	2.79292	1.78987	5.82941	0.72764	1.83296	8.78533	2.46695	3.93985	0.94269	4.59073	25.11243	0.81733	5.87952

Source: Figures for the United States derived from authors' calculations from the CPS, other countries taken from Eurostat (ilc_li02).

Appendix B Table 6: Average	e Poverty Gap Ratio for Elder	v Persons, United States and Selected I	European Countries, 1995-2014

Year	United States	Unweighted European Average	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingdom
1995	27.5	31.1	19	n/a	n/a	20	69	19	55	n/a	18	n/a	18
1996	27.9	24.3	18	n/a	n/a	19	45	20	35	n/a	17	n/a	16
1997	27.4	18.1	13	n/a	10	17	35	20	18	n/a	16	n/a	16
1998	28.0	18.9	15	n/a	7	19	30	16	31	n/a	16	n/a	17
1999	28.2	22.1	18	n/a	8	17	33	21	53	n/a	12	n/a	15
2000	28.1	15.6	19	n/a	10	14	21	19	n/a	n/a	10	n/a	16
2001	28.2	14.3	15	n/a	n/a	n/a	n/a	17	n/a	n/a	11	n/a	n/a
2002	28.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	27.9	12.6	15.2	18.4	n/a	n/a	n/a	n/a	n/a	4.1	n/a	n/a	n/a
2004	29.0	13.5	17.7	15.0	8.9	12.2	n/a	18.2	n/a	4.8	17.0	14.4	n/a
2005	29.0	11.8	9.9	10.1	8.5	11.5	13.1	12.2	11.9	3.1	16.0	19.2	14.3
2006	29.6	15.0	11.3	19.0	7.6	14.1	29.2	11.8	18.6	5.4	16.2	15.7	15.9
2007	30.1	13.0	13.1	8.4	7.2	15.6	17.6	12.9	18.6	3.9	15.8	15.4	14.6
2008	29.5	12.0	11.9	10.4	8.2	15.1	16.5	11.5	10.9	3.8	14.3	13.8	16.0
2009	29.6	12.2	15.0	7.8	7.3	12.7	12.8	12.0	18.1	3.3	16.1	13.8	15.6
2010	29.7	16.1	14.4	19.2	8.9	16.4	14.3	13.3	29.7	n/a	17.0	9.2	18.1
2011	29.8	15.9	14.5	22.0	7.3	8.9	15.4	15.8	27.7	14.6	17.6	13.6	17.3
2012	28.5	16.3	26.3	16.9	8.5	10.6	16.4	15.2	27.7	3.1	23.2	14.1	17.2
2013	29.7	18.0	13.2	43.5*	7.3	10.7	14.4	15.2	20.7	20.8	25.2	12.8	14.3
2014	30.6	n/a	n/a	n/a	8.5	n/a	n/a	18.7	n/a	n/a	23.7	n/a	n/a
Absolute Difference	3.1	-13.1	-5.8	25.1	-1.5	-9.3	-54.6	-0.3	-34.3	16.7	5.7	-1.6	-3.7
Variance	0.87211	24.80474	14.16330	99.05855	0.92838	11.14517	240.36552	10.27320	182.78423	36.33433	16.13324	6.26444	1.52410

* It is unclear whether this 26.6 percentage point increase is a statistical anomaly or whether there has been a substantial change in elderly poverty gaps between 2012 and 2013. Source: Figures for the United States derived from authors' calculations from the CPS, other countries taken from Eurostat (ilc_li11)

Year	United States	Unweighted European Average	Belgium	Denmark	Finland	France	Germany	Italy	Netherlands	Norway	Spain	Sweden	United Kingdom
1995	44.5	26.3	19	n/a	n/a	18	48	18	18	n/a	27	n/a	36
1996	44.2	23.3	16	n/a	3	23	42	16	18	n/a	28	n/a	40
1997	44.3	22.4	13	n/a	3	18	41	23	23	n/a	21	n/a	37
1998	44.8	23.5	15	n/a	5	19	39	18	23	n/a	33	n/a	36
1999	44.1	22.9	14	n/a	4	21	32	13	27	n/a	45	n/a	27
2000	40.4	21.4	6	n/a	6	19	30	17	n/a	n/a	34	n/a	38
2001	36.7	24.7	15	n/a	n/a	n/a	n/a	21	n/a	n/a	38	n/a	n/a
2002	41.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	43.3	12.4	19.9	9.1	n/a	n/a	n/a	n/a	n/a	8.2	n/a	n/a	n/a
2004	42.6	15.5	13.6	10.2	7.5	17.1	n/a	28.2	n/a	7.2	32.2	8.1	n/a
2005	42.5	14.7	12.2	11.0	6.1	12.1	12.7	27.1	12.2	11.3	27.7	8.8	20.3
2006	41.9	14.5	14.6	6.2	6.1	12.1	13.6	22.2	10.1	9.8	24.5	16.6	23.9
2007	42.4	16.8	15.6	6.0	8.9	9.5	21.7	23.0	17.7	13.9	29.9	12.9	25.4
2008	42.8	17.1	20.4	3.1	15.0	13.1	18.4	27.3	13.8	10.6	29.0	12.8	24.6
2009	41.1	17.8	19.9	9.8	11.7	16.6	22.0	28.8	13.2	14.7	27.3	14.8	17.0
2010	38.6	18.7	16.1	8.7	8.5	22.0	25.2	29.6	14.3	15.3	33.8	19.4	13.0
2011	39.5	16.7	19.2	9.9	8.3	1.7	20.9	27.9	19.3	8.5	31.6	19.6	16.9
2012	39.9	17.5	16.6	12.6	10.5	17.5	22.0	31.9	13.2	6.8	29.3	19.3	12.6
2013	40.8	16.6	21.6	1.1*	9.0	19.5	20.1	27.8	9.2	12.3	29.8	20.6	11.1
2014	40.2	n/a	n/a	n/a	7.1	n/a	n/a	30.4	n/a	n/a	33.5	n/a	n/a
Absolute Difference	-4.3	-9.7	2.6	-8.0	4.1	1.5	-27.9	12.4	-8.8	4.1	6.5	12.5	-24.9
Variance	4.72366	16.10982	14.00382	12.24018	10.27096	29.13333	118.80686	32.09529	27.31604	8.96164	27.91869	20.82544	101.94552

Appendix B Table 7: Poverty Rate for Single Parent Households with Dependent Children, United States and Selected European Countries, 1995-2014

* Similarly to Denmark's anomaly in regards to elderly poverty gaps in Table 5, it is unclear whether this 11.5 percentage point decrease is a statistical anomaly or whether there has been a substantial change in single parent poverty rates between 2012 and 2013.

Source: Figures for the United States derived from authors' calculations from the CPS, other countries taken from Eurostat (ilc_li03).

		Luxembourg Income Study							CSLS Calculations Based on CPS ASEC						Official OECD Estimates				
	Gini	Overall Poverty Rate	Overall Poverty Gap	Elderly Poverty Rate	Elderly Poverty Gap	Single Parent Poverty Rate	Gini	Overall Poverty Rate	Overall Poverty Gap	Elderly Poverty Rate	Elderly Poverty Gap	Single Person with Dependent Children Poverty Rate	Overall Absolute Poverty	Elderly Absolute Poverty	Gini	Overall Poverty Rate	Overall Poverty Gap	Elderly Poverty Rate	Elderly Poverty Gap
1994	0.361	16.9	34.1	20.5	28.6	45.3													
1995							0.368	16.2	31.6	17.5	27.5	44.5	13.8	10.5	0.361	16.7	34.0		
1996							0.372	16.1	31.2	17.6	27.9	44.2	13.7	10.8	0.363	17.1			
1997	0.360	16.6	33.3	20.8	27.8	42.7	0.377	15.9	32.1	17.9	27.4	44.3	13.3	10.5	0.364	16.8			
1998							0.372	16.4	32.0	19.7	28.0	44.8	12.7	10.5	0.357	17.2			
1999							0.355	16.2	31.7	19.1	28.2	44.1	11.9	9.7	0.354	17.2			
2000	0.357	16.6	33.3	24.1	29.0	39.3	0.372	15.8	31.9	21.1	28.1	40.4	11.3	9.9	0.357	16.9	35.1		
2001							0.367	15.8	31.9	20.6	28.2	36.7	11.7	10.1	0.36	16.5			
2002							0.370	16.5	32.7	21.1	28.7	41.3	12.1	10.4	0.376	16.8			
2003							0.373	16.8	33.6	21.4	27.9	43.3	12.5	10.2	0.374	17.2			
2004	0.364	17.1	35.0	24.5	28.7	39.3	0.370	16.1	34.3	20.8	29.0	42.6	12.7	9.8	0.36	17.0			
2005							0.369	16.0	34.3	20.7	29.0	42.5	12.6	10.1	0.38	17.0	37.5		
2006							0.382	16.2	34.3	20.9	29.6	41.9	12.3	9.4	0.384	16.8			
2007	0.371	17.6	38.5	24.1	38.7	39.4	0.391	16.4	33.9	20.3	30.1	42.4	12.5	9.7	0.376	17.6			
2008							0.383	17.0	33.8	21.2	29.5	42.8	13.2	9.7	0.378	17.3	37.0		
2009							0.376	16.9	33.3	20.7	29.6	41.1	14.3	8.9	0.379	16.5	37.6	19.4	31.5
2010	0.367	16.9	34.8	19.8	28.1	39.8	0.380	16.2	34.0	18.3	29.7	38.6	15.1	9	0.38	17.4	38.3	14.6	31.8
2011							0.374	16.6	35.2	17.7	29.8	39.5	15	8.7	0.389	17.1	38.1	19.1	30.2
2012							0.383	16.7	34.8	17.1	28.5	39.9	15	9.1	0.389	17.4	38.2	18.8	32.0
2013	0.377	17.0	33.8	19.1	30.0	39.9	0.384	17.0	34.2	17.1	29.7	40.8	14.5	9.5	0.401*			21.5*	
2014							0.397	16.4	34.1	16.9	30.6	40.2							

Appendix B Table 8: Comparison of CSLS, LIS and US Official Gini Coefficients, Overall and Elderly Poverty Rates and Gaps, United States, 1994-2014

* OECD estimates based on new income definition since 2012. CSLS calculation values in each year represent previous year incomes, e.g. values for 2014 indicate responses in 2014 based on incomes from 2013.

Source: Authors' calculations based on the Luxembourg Income Study. Gini coefficient from <u>http://www.lisdatacenter.org/data-access/key-figures/inequality-and-poverty/</u>. US Census Bureau, Historical Poverty Tables, Tables 2 and 3. OECD.Stat Income Distribution and Poverty.