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Abstract

Government policies attempt to mitigate the economic risks to households of major life transitions. This paper focuses on two such transitions that social security systems typically insure against—long term exits from the labor market (retirement, disability, unemployment insurance) and the death of a household head or spouse (survivor’s insurance). We examine labor force exits of men at various ages in four countries--Canada, Germany, Great Britain, and the United States—using data from the Cross-National Equivalent File, a matched longitudinal data set. We focus on how average net-of-tax household income changes in the years before and after the event. We find that when one measures the change in economic well-being following a labor market exit by the fraction of lost labor earnings replaced by social security income, the decline in the households economic well-being is substantially overstated. When we compare net-of-tax household income before and after a long term exit from the labor market, we find that such drops are much less than those implied by a social security replacement rate and that differences across countries in the average drop are much less than those based on a social security replacement rate. We find the same pattern when we focus on how net-of-tax household income changes in the years before and after the death of a head or spouse. Declines in net-of-tax household income following such a death are much lower than the decline implied by a replacement of the deceased person’s labor earnings and social security benefits by their household’s post-death social security income. But the size of the change in individualized net-of-tax income following the death of a head or spouse is greatly affected by assumptions used to adjust for changes in household size.

Introduction

Market work is the primary source of income for most “working age” households in OECD countries.¹ A permanent or even a long-term exit from work by a household’s principal earner is therefore a potentially risky economic event.² Most OECD countries now have a mixture of private and public institutions to ameliorate the economic consequences of such exits. On the public side, most social insurance systems provide income to those who exit work at older ages (retirement, survivor benefits) or at younger ages because of health conditions (disability, workers’ compensation, and survivor benefits). Most OECD countries also offer long-term unemployment benefits for workers of all ages as part of their social insurance system. In addition to these types of social insurance programs, which target long-term labor market workers, most OECD countries also offer an array of means-tested welfare programs. Such programs typically provide a minimum social safety net for nonworkers that may either be categorical (e.g., aged, disabled, lone parents, survivors, etc.) or universal in
design. (See Aarts, Burkhauser and de Jong, 1998 for a fuller taxonomy of social welfare systems in a comparative context.)

While many studies of the economic consequences of long-term labor market exits have focused on the ameliorative role of such government programs, private institutions also play an important part in replacing lost earnings following an exit from the labor market. Certainly in the United States, but also in other OECD countries, private employer fringe benefit packages provide protection following a labor force exit due to redundancy, disability, retirement or death. Furthermore, some households can use income from their accumulated wealth, from the added market work of other household members, or from life insurance settlements to offset their principal earner’s lost income.

Studies, especially cross-national studies, of post-exit economic well-being often focus on how a given program (e.g., social security retirement, disability, or survivor’s insurance, unemployment insurance, etc.) replaces lost earnings. By focusing on benefits from a specific program, these studies attempt to gauge the potential post-exit income available to the households of workers who experience long-term labor market exits. The lack of comparable data, however, often restricts cross-national studies to either a comparison of a hypothetical average worker’s earnings history and that worker’s subsequent social security benefits across various countries or the use of cross-sectional data from various countries to compare persons of a given age who are working relative to those who are not. (See Gruber and Wise, 1999 for an example of the former strategy and many studies using the comparable cross-sectional data from the Luxembourg Income Study for examples of the latter).

Cross-national comparisons using such data may be of limited value, especially when their intent is to show the relative economic risk to a household of a worker’s long-term labor market exit or death across industrial societies. These limitations arise, first, because the
studies may fail to recognize variation in the importance of social security insurance or any other government program in “income replacement” across countries and second, because they are unable to trace changes in economic well-being across actual households.⁴

In this paper we take advantage of a newly expanded source of cross-national panel data, the Cross-National Equivalent File (CNEF), which contains comparable socio-economic information on households in four modern OECD countries (Canada, Germany, Great Britain, and the United States). We use these data to trace the economic well-being of the households of men and women who exit the labor market. For our analysis of exits other than through death we examine the well-being of long-term employed men who experienced a permanent or long-term exit from the labor market in the 1990s. We capture long-term exits in this population by requiring men to have three consecutive years of employment (measured as at least 52 hours of market work for which a worker is paid in a given year) followed by at least two years of non-employment (measured as working less than 52 hours or having zero labor earnings in a given year).⁵ In our analysis of the consequences of death on the economic well-being of survivors, we expand our sample to include both those in and out of the labor force at the time of their death. Hence, we examine changes in the economic well-being of household following the death of a head or spouse regardless of their labor force status at the time of their death. We then focus on a vulnerable subset of this population and trace the consequences of the death of the spouse on the economic well-being of women as they transition from wife to widow.

Data

Researchers at Cornell University, along with colleagues from the German Institute for Economic Research in Berlin, the Survey Research Center at the University of Michigan, the Economic and Social Research Council Research Centre at the University of Essex, and Statistics Canada in Ottawa, have developed and tested algorithms that place information
from the German Socio-Economic Panel (GSOEP), the United States Panel Study of Income Dynamics (PSID), the British Household Panel Study (BHPS) and the Canadian Survey of Labour and Income Dynamics (SLID) into a framework of comparably defined variables for use in cross-national research. The result of these efforts is a longitudinal micro-database known as the Cross-National Equivalent File (CNEF). This file provides a set of constructed variables (e.g., net-of-tax household income, estimates of annual taxes paid by respondents, a selection of household equivalent weights based on equivalence scales, etc.) that are not immediately available in the original surveys. The CNEF data file currently contains data from 1980 to 1997 for the United States, from 1984 to 2000 for Germany, from 1991 to 2000 for Great Britain and from 1993 to 1994 for Canada. The CNEF data include standard demographic information, household income and its components, and individual information on employment and labor earnings. The CNEF data file is updated annually with additional years of the panels and newly created comparable variables. (For a fuller discussion of these data see Burkhauser, Butrica, Daly, and Lillard, 2001).

In this paper, we take full advantage of the panel nature of the CNEF data to first estimate the age-specific risk of a long-term non-death labor market exits for men across the four countries in the 1990s and then to trace the consequences of such exits on their household income by source. To do so, we use an event history based longitudinal sample design that allows us to examine the labor market activity and economic well-being of men prior to and following a long-term labor market exit. Applying our definition of labor force exits, we collect a sample of 16,627 German, 8,602 British, 16,206 Canadian, and 14,614 United States observations of men at risk of a labor market exit between the ages of 25 through 75. Each of these men experienced the beginning of a long-term labor market exit sometime between 1990 and 1998. We then use data from these same four countries to trace the consequences of the death of a head or spouse on the household income of surviving
household members. Because the consequence vary by whether the husband or wife dies, we then focus exclusively on the economic well-being of wives following the death of their husbands. To do so, we use an unbalanced panel of men and women, age 25 and older, who died sometime during the life of the panel.9

To measure changes in household economic well-being, we track all sources of household income. These sources include the labor earnings of the person who exits the labor market or dies, the labor earnings of other household members, income from employer-based pensions, other private sources, social insurance pensions, and other public transfers, as well as estimates of household taxes.10

Risk of Labor Market Exit By Age

Cross-sectional studies of employment compare the employment rate of random samples of men of different ages in a given year and infer exit rates across age categories or, in a more sophisticated manner, compare employment rates between matched age cells of two consecutive yearly cross-sections. Here we are able to follow the employment behavior of the same men as they age. Small sample sizes require us to pool our sample of men by age across all years of the 1990s. To do so we realign our calendar year data into an event history framework where the event begins in the last year of employment (t). We then assign the age at survey interview year minus 1 as the age of exit in year (t).11 This approach allows us to estimate the risk of a worker experiencing a long-term labor market exit at any given age.12

The sample periods under study as a possible last year of long-term employment are income years 1990 through 1997 for the GSOEP, 1990 through 1996 for the PSID, 1990 through 1997 for the BHPS, and 1993 through 1998 for the SLID.13

Figure 1 shows the pattern of long-term labor market exits for men aged 55 to 67.14 Long-term age-specific exit rates vary substantially across ages and across countries. With few exceptions, long-term age-specific exit rates are highest in Germany and lowest in the
United States at all ages in Figure 1. German exit rates exceed 10 percent as early as age 58 and rise rapidly to nearly 30 percent by age 61. They approach 50 percent by age 64. In contrast, United States exit rates do not hit 10 percent until age 60 and do not hit 30 percent until age 65. British exit rates remain near 10 percent until age 62 at which point they begin to rise, peaking at age 65. Canadian exit rates reach 10 percent by age 59 and remain between 10 and 20 percent until they rise sharply at ages 64 and 65.

In the introduction of their edited volume, Gruber and Wise (1999) argue that variations in social security program rules that cause age-specific social security wealth values to vary across the life cycle may explain differences in retirement rates across modern industrial societies. The individual country authors in the Gruber and Wise (1999) volume for the most part use simulated individual earning histories to demonstrate a correlation between peak changes in social security wealth across life and age-specific employment rates in their countries. Our longitudinal results are consistent with this point. Social security wealth values peak at earlier ages in Germany than in Canada, Great Britain and the United States.

**Economic Well-Being Before and After Long-Term Labor Market Exit**

Figure 1 demonstrates that long-term labor market exit rates vary greatly across the life cycle and across our four countries. We now use our panel data to focus on how household income and its sources change as these men transition out of the workforce. Because social insurance systems tend to provide more protection to those who exit at older ages, we divide our country samples into three age groups defined by the worker’s age at exit—younger workers (aged 25 through 49), middle-aged workers (aged 50 through 61), and older workers (aged 62 and over). In so doing, we show the relative importance of public and private sources of income and how important these sources are in maintaining pre-exit household income levels.
Table 1 provides information on mean post-government household income (i.e., total gross household income minus all taxes) as well as by key sources of that income for the two years before and after a labor market exit of men in our four countries in the 1990s. By definition, own labor income falls to near zero in the two years following labor market exit in all countries.\textsuperscript{17}

In the United States, decreases in the earnings of men who exit the labor force at older ages are almost equally offset by increases in their household’s social security and private pension income. For men who exit at middle ages, increases in private pension income dominate. At younger ages, increases in other public and private income dominate.

In Germany, decreases in the labor earnings of men who exit at either older or middle ages are primarily offset by increases in social security income, although increases in other public income are also important at middle ages. At younger ages, increases in other public income dominate.

In Great Britain, decreases in the labor earnings of men who exit at older ages are almost equally offset by increases in social security and other public and private income. At middle ages, increases in private pension and other private and public income are most important. At younger ages, increases in other public and private income dominate.

In Canada, decreases in the labor earnings of men who exit at older ages are offset by increases in social security and private pension income. At middle ages, increases in private pension income dominate. At younger ages, increases in other public and private income dominate.

Table 1 shows that the sources of household income that replace lost labor earnings in the years immediately following a long-term exit from the labor market vary both within a country, depending on age of exit, and across our four countries. Social security income plays an important role in replacing the lost earnings of men who exit the labor market after
age 61 in all countries, but it is far more important in Germany and Great Britain than in the United States or Canada as a share of total post-government household income. Social security income plays much less of a role for men who exit the labor force at middle ages. Only in Germany does social security continue to play a dominant role. But other public transfer programs are important for men who exit at this age, except in United States. At younger ages, other public transfers dominate in all four countries. However, in the United States, increases in other public transfers are quite small relative to the other countries. This variation in the relative importance of sources of post-exit income has important implications for interpreting various measures of “replacement rate” across countries.

Table 2 shows the relative success of social security benefits (i.e., total household post-exit social security benefits divided by pre-exit own labor earnings) and of private pension benefits (i.e., total household post-exit private pension benefits divided by pre-exit own labor earnings) in replacing the labor earnings of men who exit the labor force at various ages. A social security earnings replacement measure is often used not only to show how much social security income replaces a typical worker’s lost earnings in a country but is also used to infer how much a household’s income is likely to fall following a long-term labor market exit. Table 2 shows that simple social security replacement rates of this type substantially understate how much post-government household income is available following such an exit and does so disproportionately for the United States and Canada.

The median German man who exits at age 62 and over has a social security replacement rate of 55.8 percent, substantially more than the 35.0 percent social security replacement rate for the median man who exits at those ages in the United States. However, once all sources of income are included in a total income replacement rate measure (post-government household income prior to labor market exit to post-government household
income following exit) the total replacement rate for the median German man is 76.9 percent and 52.2 percent for the median man in the United States.

In Canada, the difference between the social security (28.3 percent) and the total replacement rate (84.2 percent) for the median man who exits the labor force at this age is even greater. Higher median private pension replacement rates explain part of this difference across countries. While the median total replacement rate in the United States continues to be lower for men who exit at older ages than in the other countries, it is less so than the replacement rate for social security, and it is Canada rather than Germany or Great Britain that has the highest total replacement rate for the median man who exits at these older ages.

The difference between social security and full income replacement rates is even more dramatic at younger ages. Hence, the conventional wisdom based on social security replacement rates that European workers have smoother income transitions out of the labor market than do workers in the United States or Canada is not fully borne out, once a fuller measure of income is considered.

In the United States, social security retirement benefits are only available for those aged 62 and over. Prior to age 62, social security benefits for men are primarily available only for those eligible based on disability. Hence, it is not surprising that the median man exiting the labor market at middle and younger ages in the United States receives no social security benefits. The same is true for Canadian men.

But this measure grossly understates post-exit household income for men who exit at these ages. Primarily because of greater access to private pension income, the total replacement rate for the median man in the United States who exits at middle ages is actually higher than that of the median man who exits when he is older. The gap in replacement rates across the four countries is smallest for those who exit at middle ages. No social security or private pension income is received by the median man who exits from long-term work at
younger ages in any of our four countries. However, as we saw in Table 1, other public income is available. The median man who exits at younger ages in the United States has the lowest total replacement rate among those in the four countries.

**Household Economic Well-Being Before and After Death of the Head or Spouse**

We now turn to our analysis of the economic well-being of households following the death of a head or spouse. We focus on how household income and its sources change across four different age groups defined by the age at which the head or spouse died. We use the same 25-49 and 50-61 age groups as above but separate our oldest group into two sub-groups, 62-69 and 70 and older, to capture outcomes on the households of those who die while transitioning into retirement and who do so after they are out of the labor force. We also analyze a subset of these households - only those households in which the husband dies - so we can track the consequences on his wife.

*How sources of household income change after the death of the head or spouse.* The first four columns of Table 3 show how the size of mean household income and its sources changed from three years before to three years after the death of a head or spouse within our four age categories and across the four countries.\(^{19}\) The sign (-, 0, +) in each cell indicates whether income from that source increased, stayed the same, or declined after the death occurred. In addition, an asterisk indicates the income category that accounted for the largest fraction of the total of the income increases or the total of the income decreases across all income categories.

Note that a decrease in tax obligations in treated as an increase in income. Also note that, because we follow the surviving spouse, we do not account for changes in household composition. Because we do not, changes in income may be due to a combination of changes in either the combination of household members contributing income, direct changes in the income of a particular type, or both. Thus, our results should be interpreted as economic
well-being after other behavioral changes have occurred, such as choice of living arrangements. One should not, for example, interpret the changes in labor earnings of other household members as evidence of increases or decreases in the labor supply of other household members because we do not control for whether the household membership changed.

Not surprisingly, the loss of the labor earnings of the deceased head or spouse has the most dramatic impact on household income in the household of a head or spouse who dies at age 25-49. Survivor’s labor earnings increase in Germany and Great Britain, remain about the same level in Canada, and fall in the United States. Income from the labor earnings of the other household members increases in all countries except in Canada. The resulting decline in post-government income is primarily offset by increases in social security benefits in the United States and Germany. Social security increases are also important in Great Britain and Canada but are less so than others’ labor earnings in Great Britain and reduced tax obligations in Canada.

The death of a head or spouse aged 50-61 yields similar results. Most of the loss in household income is due to the loss of the deceased’s labor earnings. Again, increases in social security payments offset the loss in labor earnings in all four countries but only in Great Britain is it most important. In the United States, the increase in asset income accounts for the largest fraction of income that offsets lost household income while, in Germany and Canada, reductions in tax obligations constitute the biggest fraction of gained income that offsets losses.

The death of a head or spouse aged 62-69 results in about the same percentage decline in household income but lost labor earnings of the deceased constitutes a much smaller fraction of the loss in income since labor force participation has already declined substantially prior to death. Declines in private pension benefits comprise the biggest
fraction of the loss in household income in the United States, Great Britain, and Canada. In Germany, declines in social security benefits make up the biggest fraction of lost household income.

The important sources of offsetting increases in household income also vary across the four countries. In the United States, Great Britain, and Germany, reductions in tax payments constitute the biggest fraction of the offsetting income increases. In Canada the biggest fraction of offsetting income increases come from the labor income of other household members.

It is not surprising to note that, when a head or spouse dies at age 70 and older, reductions in income from sources other than labor earnings account for most of the loss in household income in all four countries. In all countries, declines in social security income make up the largest fraction of the decline in household income. No single source stands out as the biggest fraction of offsetting increases in income in Germany or Great Britain. In the United States and Canada, increases in the labor earnings of other household members make up the biggest fraction of increases in household income after death.

In the last four columns in Table 3, we repeat our analysis for the subsample of households in which a husband dies and leave a widow.20 As above, in all countries, lost labor earnings of the husband accounts for the largest fraction of the reduction in household income when the husband dies at age 25-49. Increases in social security income accounts for the biggest fraction of offsetting income gains in all countries except Germany where the biggest fraction of increases in household income come from increased earnings of the widow.

Among women whose husbands’ died between age 50-61, the biggest fraction of the decrease in household income after death is from lost labor earnings of the deceased in all four countries. By contrast, it is only in Great Britain that social security accounts for the
biggest fraction of offsetting income gains. Reduced tax obligations are a bigger fraction of
gains in Germany and Canada and, in the United States, increased asset income accounts for
the biggest fraction of offsetting income increases.

In the 62-69 age group, lost labor earnings of the husband still account for the biggest
fraction of income losses in the United States and Great Britain. In Canada the biggest
component of the loss in income is from lost private pensions and, in Germany it is from
reductions in social security income. Offsetting income gains are mostly due to reduced tax
obligations in the United States, Great Britain, and Canada. Surprisingly, increases in
earnings of the widow accounted for the biggest fraction of the offsetting household income
increases in Germany.

In the 70 and over age group, reduction in social security income accounts for the
largest fraction of the loss in household income in all countries. Reduced tax obligations are
the biggest component of offsetting income increases in Germany and Great Britain. In the
United States and Canada offsetting increases in household income are mostly due to
increases in labor earnings of other household members.

Table 3 shows that the pattern of loses and gains across sources following the death of
head or spouse are more similar across countries than across age groups within each country.
None-the-less, there are important difference in the primary source of the loss and offsetting
income gains across countries. But such differences are critical from a policy perspective
only if they lead to important differences in the relative change in economic well-being of
surviving household members across these countries. Before attempting to see if they do so,
we discuss an important problem related to comparing the income of the survivors following
the death of a spouse in all countries.

Evaluating the economic well-being of different size households. In the appendix
tables supporting Table 3, we compared the mean post-government income of households
before and after the death of a head or spouse. In so doing, we compared household income for households of different sizes. A large literature exists detailing the problems associated with measuring economic well-being at the individual level (Mood and Smolensky, 1977; Burkhauser, Smeeding and Merz, 1996). Among the most difficult issues is how to compare the economic well-being of individuals who live in households of different sizes. One extreme is to assign a per capita share of household income to all household members. This assignment assumes that income is equally shared by household members and that there are no returns to scale in household production. The other extreme is to assign all household income to each household member. This assignment assumes that household income is pure public good—that is that access to or potential consumption of household income by one household member does not diminish in any way the among of household income let to be consumed by other household members. An alternative interpretation would be that the household has perfect return scale in the production of household goods and services purchased with household income.

The assumption one makes about the returns to scale in household production is a particularly important issue when the comparison is of an event that by its very nature changes household size. If we simply compare net-of-tax total household income in unadjusted for household size before and after the death of a head or spouse, we are effectively assuming perfect returns to scale. Alternatively, we could assume there no returns to scale and assign survivors a per capita share of net-of-tax household income. Buhman, Rainwater, Schmaus, and Smeeding (1988) propose a formula that accommodates these two extreme assumptions. Their formula is given by:

\[ E = \frac{D}{S^e} \]  

(1)

where an individual’s equivalent income (E) equals total household income (D) divided by household size (S) raised to the power (e). The assumption one makes about economies of
scale in household production or consumption is captured in the value one adopts for (e). At one extreme, when (e) equals 1, no economies of scale exist. Hence total household income for households of two persons must be twice that of a one-person household for each person in the two-person household to have the same level of economic well-being as the person in the one-person household. Operationally, per capita income is assigned to each person in the household.

At the other extreme, when (e) equals zero, economies of scale are perfect, and income can be thought of as a pure public good within the household. Operationally, each person is assigned equivalent income exactly equal to household income. This assumption is implicitly adopted in the comparisons of net-of-tax income shown in Appendix 2A-9A.

Burkhauser, Smeeding and Merz (1996) show the sensitivity of income inequality and poverty measures to variations in the value of (e) but recognize that economic theory does not suggest a particular value. They point out, however, that a common value used in the literature is (e) equal to 0.5 (Atkinson, Rainwater, and Smeeding, 1995; Ruggles, 1990).

In Table 4, we use the above formula to adjust post-government household income values for period t-1 and t+1 shown in the appendix Tables 2A-5A for household size, using these three values of (e). We explicitly label the resulting household size-adjusted values to indicate which (e) value we use. Not surprisingly, individualized post-government household income falls the higher is the value of (e) but more importantly for our purpose, the ratio of mean household size-adjusted post-government income in t+1 to mean household size-adjusted post-government income in t-1 (after and before death) varies dramatically with the choice of (e). In Table 3, we repeat this analysis for the subsample of households in which the survivor is a widow.21

As can be seen in Tables 4 and 5, the differences in the ratios across values of (e) are much greater than the differences across age groups within countries or within age groups.
across countries. Burkhauser, Smeeding and Merz (1996) have shown that the choice of equivalence scale does not have a substantial effect in across country income distribution or poverty comparisons but can have dramatic effects on the type of households that are found in the lower end of the income distribution. For instance, because older person live in smaller households, the smaller the value of (e) (i.e. the higher the assumed returns to scale) used to estimate equivalized income, the older will be the poverty population. Tables 4 and 5 provide evidence of a corollary to this rule. The smaller the value of (e) used to estimate equivalized income, the greater the drop in measured economic well-being of surviving members of households following the death of head of household or spouse.

Comparing replacement rates and post-government income across countries.
Following Burkhauser, Smeeding, and Merz (1999) we use an (e) value of 0.5 in our analysis of the change in household income following the death of a husband or spouse. As we discussed in the context of long term exits from the labor market, most cross-national comparisons of how household economic well-being changes use a program based approached. That is, for example, they show how much of past labor earnings are replaced by social security benefits. In Figure 2, we provide such a comparison across our four countries for households whose head or spouse dies at various ages. Unlike Table 4, Figure 2 reports the social security replacement rate of the median household size adjusted income rather than the mean value to reduce the influence of outliers in the data.

That is, in Figure 2 we first calculate, for each household the ratio of household size-adjusted social security income in t+1 to household size-adjusted social security benefits and the deceased head’s or spouse’s labor earnings in t-1. This ratio approximates the replacement rate concept used in the simulation typically done to measure the degree to which social security replaces lost earnings in cross-national studies.
In all four countries, social security benefits provide substantial protection against the death of head or spouse at older ages. Hence, what appears to be a substantial decline in real income when no adjustments are made for smaller household size (e=1 in Table 4) are much less so for the median survivor in all four countries. Germany provides the highest replacement rate in the age 70 and over group, but the differences across countries are small. Canada provides the highest replacement rate in the age 62-69 group and the United States the lowest but once again differences for the median survivor are small.

At younger ages the replacement rates are much smaller for the median survivor in all countries, in large part because survivors do not automatically receive social security benefits. Ordinarily social security benefits are provided to households in this age group only if there is a surviving child. Canada is the obvious exception in the 50-61 age group. The Canadian social security program pays survivor benefits to widows and widowers immediately after death. The benefits are based on accrued contributions to the Canadian Pension Plan.

But as we discussed above a better measure of the change in economic well-being of survivors following the death of husband or spouse is the ratio of household size-adjusted post-government income in t+1 to household size adjusted post-government income in t-1. In Figure 3, we report the ratio of median household size-adjusted post-government income in the sample for each age group. In all four countries, the median survivor experiences small changes in economic well-being when the head or spouse dies at age 70 or above. In fact, there is no change in Germany and the lowest replacement rate is found in Great Britain (0.89). Replacement rates are even higher in the age 62-69 group for all but Great Britain which falls to 0.87. Importantly, the replacement rate at younger ages is far higher than that captured by a simple social security replacement rate. Great Britain has the highest replacement rate at 1.03 and Canada the lowest at 0.87. Somewhat surprisingly, the United
States provides the highest replacement rate (1.00) in the age 25-49 group with Canada having the lowest replacement rate at 0.82. The median replacement rates in Figure 3 are for both surviving widows and widowers. Because husbands are the primary labor earnings in all four countries, we now focus on the subset of the surviving population that is most likely to suffer substantial declines in economic well-being—widows.

Figure 4 reports social security replacement rates for widows. In the age 70 and over group there is very little difference across countries, with the United States highest at 0.94 and Canada lowest at 0.88. In the age 62-69 group, where past wage earnings of the husband are more important in some countries than in others, the differences in replacement rates are greater. Canada and Great Britain have replacement rates that exceed 1.0, while the United States has a replacement rate of 0.73. Once again in the two lower age groups, social security provides much less income replacement. Again, the program differences in Canada account for the much higher replacement rate for widows in the 50-61 age group.

Figure 5, however, provides a clearer picture across countries of the relative outcomes of women following the death of their husbands. In all age groups, post-government size-adjusted household income replacement rates are much closer following the death of their husband. Surprisingly, given the substantial difference in the sources of income at older ages across the four countries there is very little difference in the change in income for the median widow following the death of her husband at older ages. The replacement rates vary more across age than across countries. In all countries, except Great Britain, replacement rates are lower at younger ages than at older ages.

Conclusions

Lack of comparable multi-period data has made it difficult to determine the importance of social security and other sources of income in replacing the lost earnings of
men who exit the labor force at various ages. Here we show that social security income (i.e., income from public, industry-wide, insurance-based, retirement and disability programs) is most important for men who exit at older ages in the four countries (Canada, Germany, Great Britain, and the United States) we consider and less so for men who exit at younger ages. However, focusing solely on social security replacement rates not only overstates the actual decline in post-government household income following an exit from the labor market by men in all four countries but disproportionately does so for the United States and Canada. Private pension income in the United States, Canada, and Great Britain plays a much more important role in replacing the labor earnings of men who exit at older ages than in Germany.

However, even using a post-government household replacement rate measure, the household of the average man exiting the labor force in the United States still has a relatively lower replacement rate than does the average man in Canada, Great Britain, or Germany at all ages. The overall generosity of the set of retirement programs—social security, other public programs, and private pensions—that provide such income to those men who exit the labor force may in part explain the higher exit rates and lower employment rates of men in these countries relative to the United States.

We find similar results when we focus on the economic well-being of survivors following the death of a head or spouse. Post-government household income is in general higher than would be implied by social security replacement rates. The actual replacement rate, however, is sensitive to assumption made about returns to scale. We find that the household size-adjusted income of the median widow of a husband who dies at older ages (aged 61-69 or 70 and above) falls modestly in all four countries when we use an (e) value of 0.5. And even for the median widow whose husband who dies at younger ages (aged 25-49, or 50-61), household size-adjusted income is not dramatically reduced. Importantly,
differences in the choice of equivalence scale matter more than differences within age groups across countries.
References


Appendix

In this appendix we detail the components included in each of the broad income categories described above. Table 1A lists the components of income measured in each country’s survey and how we’ve allocated them to our broad income categories. More detailed information about the income measures asked in each survey is available in each survey’s file documentation. We also provide, for each country, a brief overview of government programs for which income is measured in the data we use.
GOVERNMENT TRANSFER PROGRAMS IN CANADA

This document describes income sources in the SLID. The primary purpose of this document is to provide a thumbnail sketch of government transfer programs in Canada. Government transfers being defined to include traditional programs in which those meeting specific conditions receive money as well as programs related to private retirement income plans. Government transfers are defined to include traditional programs in which those meeting specific conditions receive money as well as programs related to private retirement income plans. We generally divide transfer income into two categories: income that flows from public insurance-based benefits and income that flows from public welfare-based benefits.

We categorize income from each program by whether it is a universal entitlement, whether the amount a person receives is income or wealth means tested and whether there is a quid pro quo attached to receipt of the income. By “quid pro quo” we mean that the benefits are conditioned on having paid into the system and the level of benefits are based to some degree on the level of past earnings.

Canada Child Tax Benefit

Program description

The Canada Child Tax Benefit (CCTB) is a tax-free monthly payment made to eligible families to help them with the cost of raising children under age 18. Included with the CCTB is the National Child Benefit Supplement (NCBS), a monthly benefit for low-income families with children. The NCBS is the Government of Canada's contribution to the National Child Benefit (NCB), a joint initiative of federal, provincial, and territorial governments. As part of the NCB, certain provinces and territories also provide complementary benefits and services for children in low-income families, such as child benefits, earned income supplements, child care, supplementary health benefits, and early prevention programs for children at risk.

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No

Old Age Security

Program description

Old Age Security provides a monthly pension to most people over 65 who have lived in Canada for at least ten years. The Old Age Security Program also provides other benefits for low-income seniors, such as the Allowance, the Allowance for the survivor and the Guaranteed Income Supplement. The basic Old Age Security pension is taxable income.

Prepared by Philip Giles of Statistics Canada.

Not included are programs providing non-refundable tax credits. (Non-refundable tax credits reduce the amount of income tax you owe. However, if the total of these credits is more than the amount you owe, you will not get a refund for the difference.) The intention is to include federal and provincial programs, although the multitude of provincial programs provides a major challenge to complete coverage.
• Universal entitlement: Yes
• Means tested: Yes
• Requires “quid pro quo”: No

Guaranteed Income Supplement / Spouse’s Allowance / Survivor’s Allowance

Program description

The Guaranteed Income Supplement provides additional money, on top of the Old Age Security pension, to low-income seniors (i.e., aged 65 or more) living in Canada. To be eligible for the Supplement, you must be receiving the Old Age Security pension and meet certain income requirements (based on the combined income of the person and spouse). The Spouse’s Allowance provides money for low-income persons (aged 60 to 64) whose spouse receives or is entitled to receive the Old Age Security pension and the Guaranteed Income Supplement.

The Survivor’s Allowance provides money for low-income persons (aged 60 to 64) whose spouse has died.

• Universal entitlement: No
• Means tested: Yes
• Requires “quid pro quo”: No

Social Assistance

Program description

Social assistance covers many provincial and municipal income supplements to individuals and families. It is usually provided only after all other possible sources of support have been exhausted.

• Universal entitlement: No
• Means tested: Yes
• Requires “quid pro quo”: No

Employment Insurance

Program description

Regular benefits are paid to people who have lost their job and want to return to work. To receive these benefits you must be actively looking for another job and be willing and able to work at all times.

You can receive regular benefits if you lose your job through no fault of your own and you can’t find work, provided you have paid into the EI account; you have been without work and without pay for at least seven consecutive days; you have worked for the required number of hours based on where you live and the unemployment rate in your area.
Special benefits are paid to people who are unable to work due to illness, injury, quarantine, pregnancy or to care for a newborn or adopted child, provided you have paid into the EI account; and you have worked for the required number of hours. Fishing benefits are paid to people who have lost their job and earned money in the fishing industry (including self-employed fishers). To receive these benefits you must be actively looking for another job and be willing and able to work at all times.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Workers’ Compensation

Program description

The most common benefit is the replacement of earnings lost after a workplace illness or injury, but other benefits are available. To be eligible for benefits, a person must:

- Have a worker-employer relationship with an employer covered by the WSIB (Workplace Safety Insurance Board)
- Have an injury or illness directly related to his/her work.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Canada / Quebec Pension Plan

Program description

The Canada Pension Plan operates in every province and territory except Quebec which has a similar program, the Quebec Pension Plan. The Canada Pension Plan can provide Canadians with a retirement pension as early as age 60. This Plan also offers disability, survivors and death benefits. The amount of the pension or benefit depends on how much and for how long a person contributes to the Canada Pension Plan. With very few exceptions, every person in Canada over the age of 18 who earns a salary must pay into it.

The Canada Pension Plan retirement pension is a monthly payment to people who have contributed to the Canada Pension Plan or both Canada Pension Plan and Quebec Pension Plan and live outside the province of Quebec and who are at least 60 years of age. The pension is designed to replace about 25% of the earnings paid into the Plan.

This retirement pension would normally be payable the month after a person’s 65th birthday. The amount of the pension is smaller if it is taken before that point, and larger if taken after. This "flexible" retirement pension can be adjusted to age 60 at the earliest or age 70 at the latest. To be eligible prior to age 65, a person must be considered to have reduced or stopped working.

The Canada Pension Plan Disability pays a monthly benefit to people under age 65 who have contributed to the Plan and who are disabled according to Canada Pension Plan legislation. It also pays monthly benefits for their dependent children.
Canada Pension Plan survivor benefits are paid to a deceased contributor's estate, surviving spouse or common-law partner and dependent children.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

**Goods and Services Tax Credit**

**Program description**

The GST/HST credit (goods and services tax/harmonized sales tax) is a tax-free payment to help individuals and families offset the cost of the GST/HST (goods and services tax; harmonized sales tax). All persons aged 18 and over are eligible for benefits, depending on the income of the person and spouse (if any).

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No

**Provincial Tax Credits**

**Program description**

This is not actually a program but a category for various income amounts. Included are refundable tax credits other than those for children (which are included with child tax benefits) and the GST/HST Credit. Some are designed to help low-income individuals and families to pay property taxes, education taxes, rent and living expenses, and so on. Some non-taxable government transfers are not included here due to the reporting procedures for income tax purposes (or lack thereof). These include some training program payments, Veteran’s pensions, pensions to the disabled (which are not part of CPP/QPP payments), payments from provincial automobile insurance plans, and benefits for fishing industry employees (outside of that provided in EI payments).

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No

**Registered Retirement Savings Plans (RRSP)**

**Program description**

This is a private retirement savings plan that a person establishes and contributes to, and that is registered with the federal government. Limits are established for the maximum amount that one can contribute each year, based on earnings and amounts contributed to any employer pension plans. Provisions exist for some carry-forward of contribution amounts from another year. Any income earned in the RRSP is generally exempt from tax until payments are received from the plan. A person may also elect to use available RRSP contribution limits to contribute to his or her spouse's RRSP. When a RRSP matures, one
must either reinvest in another RRSP-eligible investment, cash in the RRSP (and pay income
tax in that year on the money received) or use the money in the plan to buy:
an annuity for life;
an annuity spread over a number of years; or
a registered retirement income fund (RRIF).

One cannot hold an RRSP past the end of the year in which he/she turns age 69.

- Universal entitlement: Yes
- Means tested: No
- Requires “quid pro quo”: Yes

Registered Retirement Income Funds (RRIF)

Program description

Registered with the federal government, this private type of fund is a complement to the
RRSP. Normally, a person accumulates savings tax-free in an RRSP, then buys a RRIF from
which payments are made. RRIF payments are taxable income. Money is transferred to a
RRIF from a RRSP, RPP (registered pension plan from an employer), or from another RRIF,
and regular payments are made to the person holding the RRIF. A minimum amount must be
paid annually from a RRIF after the year in which it is set up.

- Universal entitlement: Yes
- Means tested: No
- Requires “quid pro quo”: Yes
GOVERNMENT TRANSFER PROGRAMS IN GREAT BRITAIN

This document describes income sources in the BHPS. The primary purpose of the document is to provide a thumbnail sketch of government transfer programs in Great Britain. Government transfers are defined to include traditional programs in which those meeting specific conditions receive money as well as programs related to private retirement income plans. We generally divide transfer income into two categories: income that flows from public insurance-based benefits and income that flows from public welfare-based benefits. We categorize income from each program by whether it is a universal entitlement, whether the amount a person receives is income or wealth means tested and whether there is a quid pro quo attached to receipt of the income. By “quid pro quo” we mean that the benefits are conditioned on having paid into the system and the level of benefits are based to some degree on the level of past earnings.

National Insurance Retirement Pension

Program description

This program provides state retirement benefits to those workers (or their spouses) with qualifying earnings relating to Class 1 contributions equal to at least 25 times the weekly Lower Earnings Limit in one of the two tax years on which the applicant’s claim is based. Benefits are available at age 60 for women and at age 65 for men. The pension age of women will be incrementally raised to age 65 over the period 2010 to 2020.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Widow or war widows pension

Program description

This National Insurance program extends benefits to widows of workers who have had (since April 6, 1975) qualifying earnings of at least 25 time the Lower Earnings Limit for the year in which earnings accrued or have paid 25 flat-rate contributions before April 6, 1975.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Widowed mothers allowance

Program description

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3 This Summary was prepared with the assistance of Stephen Jenkins and Richard Berthoud of Essex University.
This National Insurance program extends benefits to widows of employees, directors of companies, self-employed and workers making voluntary contributions if the workers have contributed the qualifying amount from earnings for minimum contributions in their respective class or if they have paid 50 flat-rate contributions before April 6, 1975.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Invalidity pension

Program description

The purpose of this program is to replace earnings of those incapable of work. Recipients must have had previously paid national insurance contributions. In 1995 benefits from this program were renamed as “Incapacity benefits.”

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Severe disablement allowance

Program description

The purpose of this program is to replace earnings of those incapable of work and who have not previously paid national insurance contributions.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

Industrial injury allowance

Program description

The purpose of this program is to compensate people who were injured or became sick in the course of employment.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Attendance allowance

Program description
This program is designed to meet the extra costs of caring for disabled persons over the age of 65 who have special needs. This program extends the care component of the Disability Living Allowance program to persons age 65 or older.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

Mobility allowance

Program description

This benefit is the mobility component of the Disability Living Allowance. That program is designed to meet the extra costs of disabled people with special needs for care or mobility. Can be claimed only up to age 65.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

Invalid care allowance

Program description

The purpose of this program is to replace earnings for those who do not work because they are caring for a disabled person receiving the Disability Living Allowance or the Attendance Allowance.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

War disability pension

Program description

The purpose of this program is to compensate people who were injured or became sick while serving in the armed forces.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Disability working allowance

Program description

This program is designed to supplement low pay of those working at least 16 hours per week. The benefit is restricted to workers whose employment prospects are affected by disability.
• Universal entitlement: No
• Means tested: Yes
• Requires “quid pro quo”: No

Disability living allowance

Program description

This program is designed to meet the extra costs of disabled people with special needs for care or mobility. Can be claimed only up to age 65.

• Universal entitlement: No
• Means tested: Yes
• Requires “quid pro quo”: No

Unemployment benefit

Program description

[To be inserted]

• Universal entitlement:
• Means tested:
• Requires “quid pro quo”:

Income support

Program description

The purpose of this program is to maintain a minimum level of income for non working claimants and their dependents. Benefits above the basic rates are available to disabled persons (“disability premium”). Before 1988 this benefit was called the “Supplementary benefit.”

• Universal entitlement: Yes
• Means tested: Yes
• Requires “quid pro quo”: No

National Insurance sickness benefit

Program description

[To be inserted]

• Universal entitlement:
• Means tested:
• Requires “quid pro quo”: 
Child benefit

Program description

[To be inserted]

• Universal entitlement:
• Means tested:
• Requires “quid pro quo”:

Lone parent benefit

Program description

[To be inserted]

• Universal entitlement:
• Means tested:
• Requires “quid pro quo”:

Housing benefit and council tax benefit

Program description

This program subsidizes the payment of rent and council tax liabilities of claimants and dependents. Higher subsidies are available to disabled persons (a disability premium).

• Universal entitlement: No
• Means tested: Yes
• Requires “quid pro quo”: No
Government Transfer Programs in Germany

This document describes income sources in the GSOEP. The primary purpose of the document is to provide a thumbnail sketch of government transfer programs in Germany. Government transfers are defined to include traditional programs in which those meeting specific conditions receive money as well as programs related to private retirement income plans. We generally divide transfer income into two categories: income that flows from public insurance-based benefits and income that flows from public welfare-based benefits. We categorize income from each program by whether it is a universal entitlement, whether the amount a person receives is income or wealth means tested and whether there is a quid pro quo attached to receipt of the income. By “quid pro quo” we mean that the benefits are conditioned on having paid into the system and the level of benefits are based to some degree on the level of past earnings.

Insurance based public pension programs:

Old age pensions, including invalidity pension from the GRV
Miner Pension, old age and disability
Farmer Pension, old age and disability
War victim pension
Pensions for widows, widowers, and orphans (GRV, and related systems)

Program description

The Categories listed are various old-age and disability pensions from the GRV (Gesetzliche Rentenversicherung) and related systems. The old age and disability insurance (GRV, Gesetzliche Rentenversicherung) provides old age pensions and disability pensions to workers and their survivor and dependent children if the worker dies. Both are paid monthly. Blue and white collar workers (including all employees in the public sector except (“Beamte”) civil servants) are compulsory insured, while civil servants and the self-employed (with few exceptions) are not insured. There are very similar programs for miners and farmers.

The GRV strongly relates old age benefits to previous contributions (earnings). However, the system offers some credits for periods of qualification, unemployment, sickness and raising children. The ideal replacement ratio is about 70 percent of former net earnings for all employees.

A standard old age pension is paid to person’s age 65 and older. Persons having a qualifying period of 35 years can claim for a long-service pension after their 63rd birthday. Under special circumstances women age 62 and older can receive the old-age pension for women. Pensions from the GRV-Systems are only partly taxed. The average pensioner does not pay taxes.

Widows and Widowers receive 60 percent of their deceased partner’s pension if they are at least 45 years old, or are invalid, or are raising a child. Otherwise the pension is reduced to 25

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1 This description of Transfer program in Germany was prepared by Johannes Schwarze.
percent. Orphans can receive a pension until the age of 27. The amount is between 10 and 20 percent of their deceased parent’s pension.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Civil servant pension (for Beamte class public sector employers only)

Program description

Civil servants (in Germany called Beamte) should always be carefully distinguished from other employees in the public sector. Civil servants are not members of the GRV. They do not pay specific contributions but do receive a state pension at retirement. The pension is about 75 percent of the last received net income. Civil servant pensions are fully taxed.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Worker accident pension

Program description

Statutory occupational accident insurance protects workers and their families against lost earnings capacity due to an accident at work. The insurance covers nearly all blue and white collar workers. Contributions are paid by the employers. The pension amount depends on the reduction in earnings capacity and on earnings received during the last year before the accident.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Additional pensions for employees:

Supplementary pension for employees in the public sector

Program description

Blue and white collar workers in the public sector must participate in a statutory supplementary pension program. Contributions to this system are paid fully by the employer (state, country, city). The program does not cover civil servants (Beamte). The program is similar to a Private Sector employer pension.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes
Private sector employer pension for other workers

Program description

Employer pension programs in Germany are private and voluntary. Whether a worker is covered by such a program depends heavily on firm size, industrial sector and other firm related characteristics.

- Universal entitlement: Yes/No
- Means tested: No
- Requires “quid pro quo”: Yes

Unemployment insurance system:

The unemployment insurance system (Federal employment services) offers various benefits that can generally be described as follows:

Unemployment insurance benefit

Program description

The compulsory federal unemployment insurance provides benefits to regularly employed workers who become involuntarily unemployed and who are able and willing to accept suitable employment. To qualify, contributions to the federal unemployment insurance must be paid at least for twelve month. The unemployment insurance benefit is about 60 percent (67 percent if there are children in the household) of most recent after tax earnings. The period of entitlement is between 6 and 32 months and depends on a worker’s age and length of past contributions to the system.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Unemployment assistance

Program description

Unemployment assistance begins after entitlement for unemployment insurance benefits is exhausted. A person applying for unemployment assistance must be involuntarily unemployed but willing and able to accept suitable employment. The benefit is 53 percent (57 percent if there are children) of last after tax earnings. However, now benefits are means tested. There is no restriction on the period of entitlement.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: Yes

Support for further training and education, transition pay
Program description

Under special circumstances unemployed workers may claim some benefits if they are engaged in further training or education.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: Yes

Other public income transfer programs:

Social assistance (subsistence allowance)

Program description

Near universal social assistance is available to a persons in need, in danger of becoming destitute, or unable to overcome their difficulties on their own or with the help of other people. Social assistance comes in various forms – personal assistance, cash benefit payments and payments in kind – and is provided as either assistance towards living expenses or assistance for special circumstances such as disability, illness or old age. Social assistance is a means tested program and additional earnings will be deducted at a rate of almost 100 percent. At present, the monthly standard benefit for the head of the household in the western states of Germany averages about DM 550. The standard payment for a spouse is 80 percent of this amount. Children receive between 50 and 90 percent, depending upon their age.

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No

Maternity benefit

Program description

The period of statutory maternity leave begins six weeks before the child is due and ends eight weeks after childbirth. The maternity benefit, paid by statutory health insurance, is 100 percent of a female worker’s after tax earnings payable during the statutory maternity leave. Either a father or a mother can claim the maternity benefit.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Child care benefit (benefits for raising children)

Program description
Fathers or mothers can claim the child care benefit. The benefit is paid up to the second birthday of the child. Benefits are means tested with an upper limit of about DM 600 per month.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

**Child benefits**

**Program description**

Child benefits can be claimed for children under 18 years of age (under 27 if child is in educational training). The benefit is DM 270 each for the first and the second child, DM 300 for the third child and DM 350 for the fourth and each additional child. Additionally, when assessing income tax, the tax office checks that the amount of child benefit paid satisfies the constitutional rule on tax relief. If not, the tax bill is reduced by the tax-free allowance for children less the child benefit already received. The last option is only used by persons with high income.

- Universal entitlement: Yes/No
- Means tested: No
- Requires “quid pro quo”: No

**Housing benefit**

**Program description**

Housing benefit is an allowance that the state grants to help cover the cost of housing. Tenants as well as homeowners can receive a housing benefit if their rent or mortgage payments exceed their financial means. Housing benefits are means tested, depending on income and some family characteristics.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

**Student benefit**

**Program description**

Students may apply for a student benefit (BAFoeG). Student benefits are partially means and depends on parental income. The maximum benefit is about DM 1,100 per month.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No
**Sickness benefits**

Program description

In case of sickness employers have to pay 100 percent of a worker’s wage income for the first six weeks of sickness. After six weeks, sickness benefits are paid by the statutory sickness insurance fund at about 80 percent of the worker’s most recent after tax earnings.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

**Long-term care insurance benefits**

Program description

The statutory compulsory long-term insurance provides cash benefits and/or in-kind benefits. Persons are eligible if they require frequent or substantial help with normal day-to-day activities on a long-term basis. Benefits are granted on the basis of the person’s care level and whether the person needs care at home or institutional care. Home care cash benefits are paid up to a maximum of DM 1,300 per month.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

**Private transfer sources:**

Transfer payments from relatives not living in the household, including court imposed child support.
GOVERNMENT TRANSFER PROGRAMS IN THE UNITED STATES

This document describes government transfer programs in the United States, with government transfers being defined to include traditional programs in which recipients must satisfy specific conditions to receive money and programs related to private retirement income plans. We generally divide transfer income into two categories: income that flows from public insurance-based benefits and income that flows from public welfare-based benefits. We categorize income from each program by whether it is a universal entitlement, whether the amount a person receives is income or wealth means tested and whether there is a quid pro quo attached to receipt of the income. By “quid pro quo” we mean that the benefits are conditioned on having paid into the system and the level of benefits are based to some degree on the level of past earnings.

Old-Age Insurance

Program description

The Old-Age Insurance (OAI) program provides a monthly pension benefit based on past earnings to workers and their spouses age 62 and older. To be eligible for benefits the worker must have contributed into the system for a fixed number of years.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Disability Insurance

Program description

The Disability Insurance (DI) program provides a monthly pension benefit based on past earnings to those who are determined to be unable to perform any gainful activity. At age 65 all beneficiaries are automatically shifted to the Old-Age Insurance program. To be eligible for benefits a worker must have recently contributed into the system for a fixed number of years.

- Universal entitlement: No
- Means tested: No
- Requires “quid pro quo”: Yes

Survivors Insurance

Program description

The Survivors Insurance (SI) program provides a monthly benefit to the survivors (spouse and dependent children) of a deceased worker who was covered by the Old-Age and Disability Insurance programs. Benefits are based on the past earnings of the worker.
• Universal entitlement: No
• Means tested: No
• Requires “quid pro quo”: Yes

Unemployment Insurance (UI)

Program description

Unemployment insurance provides benefits to regularly employed workers who become involuntarily unemployed and who are able and willing to accept suitable employment. The precise rules governing UI varies by state. In most states benefits are designed to replace about 50 percent of usual weekly wages subject to a maximum. Benefits typically last a statutory maximum of 26 weeks.

• Universal entitlement: No
• Means tested: No
• Requires “quid pro quo”: Yes

Workers Compensation (WC)

Program description

Workers compensation provides benefits to regularly employed workers who become involuntarily unemployed through work-related accidents. The precise rules governing WC vary by state. In most states benefits are designed to replace a fraction of usual weekly wages subject to a maximum. The fraction and maximum vary by state. Depending on the type and nature of the injury, a worker can be classified as having a permanent or temporary disability and that disability can be classified as either full or partial. The duration and amount of benefits vary with the classification of the disability.

• Universal entitlement: No
• Means tested: No
• Requires “quid pro quo”: Yes

Veterans Benefits

Program description

Veterans Benefits includes two programs that provide cash benefits. The first program provides benefits to veterans with service-connected disabilities. This program is similar in design to WC. A second program provides benefits to needy veterans who have non service connected disabilities. This program is similar in design to SSI.

Compensation for service connected disabilities

• Universal entitlement: No
• Means tested: No
• Requires “quid pro quo”: Yes
Pensions for non service connected disabilities

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: Yes

Aid to Families with Dependent Children (AFDC)/Temporary Assistance to Needy

Families (TANF)

Program description

TANF replace AFDC effective in July 1997. TANF provides assistance and work opportunities to low-income families with children. Families can spend more than five cumulative years on TANF. States have broad flexibility to determine eligibility, methods of assistance and benefit levels. In all state, nearly all recipients must work after having received two years of assistance.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

Supplemental Security Income (SSI)

Program description

Supplemental Security Income provides income support to persons 65 and older, blind or disabled adults, or blind or disabled children. Eligibility requirements and payment standards are nationally uniform. The disability requirement for SSI is the same as for DI. Benefit levels are based on an income test and an asset test.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

Food Stamps

Program description

The Food Stamp program provides electronic benefit transfer payments that are accepted at most retail food stores. To qualify for benefits households must meet income and asset tests.

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No
Work and Training Programs

Program description

The Federal government has at times created specific jobs targeted to members of low-income households. An example of these types of programs would be the Comprehensive Employment and Training Act of 1973 (CETA). This program ended in the early 1980s. Since the early 1980s, work-related programs have almost completely shifted to short-run training activities. An examples of this would be the Job Training Partnership Act of 1982. In general, to remain eligible for income transfers from programs like TANF and Food Stamps recipients are expected to enter job training programs.

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No

Women with Infant Children (WIC)

Program description

WIC is a special supplemental food program that provides food assistance to low-income pregnant and post-partum women and their infants as well as to low-income children up to the age of five. Benefits are income and asset tested.

- Universal entitlement: Yes
- Means tested: Yes
- Requires “quid pro quo”: No

Public Assistance

Program description

General Assistance is provided by state and local jurisdictions. Eligibility requirements and payments vary from state to state and often within a state. Payment levels are usually lower than those provided by federally financed programs and are often of limited duration. Recipients generally include unemployed persons not currently eligible for UI and persons whose disabilities are not sufficiently severe to qualify for SSI.

- Universal entitlement: No
- Means tested: Yes
- Requires “quid pro quo”: No

Low-Income Home Energy Assistance Program

Program description

Provides benefits to eligible households to meet the cost of home energy. Benefits are income and asset tested.
Universal entitlement: Yes
Means tested: Yes
Requires “quid pro quo”: No

Retirement, pension and annuity income

Description

Employer pensions are generally either defined contribution plans or defined benefit plans. Defined contribution plans are generally financed by explicit contributions from both the employer and employee. These funds are then invested. Benefits depend on the outcome of these investments. Defined benefit plans provide a specific benefit based on past earnings.

Veterans Pension

Description

Veterans pension provide defined benefit pension income for military service. To be eligible a veteran must has served a fixed number of years.

Individual Retirement Accounts (IRA)/401K plans

Description

These plans provide tax-sheltered mechanisms for retirement income generated through private savings.

Child support

Description

This category includes income from court imposed and voluntary payments from the non-resident parent to the parent who provides care to the child.

Help from relatives

Description

This category includes income from non-resident relatives.

Other transfer income

Description

This category includes income from any other non-resident sources.
Endnotes

1. Households are composed of people of various ages and “working” age is an endogenously defined advantage age category. But for the purpose of this paper we define a working age household as one in which the household head is age 61 or younger.

2. We treat death as a special case of labor market exit. We analyze the sample of men and women who die separately from those who exit the labor market while still alive.

3. In this paper we use the term social security programs to refer to public, industry-wide, insurance-based retirement, disability, and survivors programs where benefits are based on the worker’s earnings record. In some countries, social security programs could also include unemployment insurance, child benefits, etc. See Appendix

4. Some studies employ a synthetic cohort approach using repeated cross-sections to show how income changes across age groups. Such methods may confound composition and age effects.

5. Because the Canadian panel is much shorter, we only require two consecutive years of work followed by two years of non-employment.

6. Although data for Canada are only publicly available for 1993-1994, SLID data from 1995-1999 can be analyzed by special arrangement with Statistics Canada. To inquire about access to any of the data in this paper contact Dean Lillard at DRL3@cornell.edu.

7. Though data on the residents of the eastern states of Germany are available starting in 1990, we restrict our German sample to men with five years of continuous residence in the western states of Germany.

8. Very few men experienced more than one labor market exit over the period of our data.

9. In the United States, the year of death is identified using the restricted PSID Death File. In the other countries we use public files.

10. The sources of income in each of these categories are described in more detail in Appendix Table 1A.

11. Because we are interested in both labor market exit and changes in economic well-being by age we use a yearly frame for both definitions. Age is reported at the time of the interview but we are measuring employment and household income in the previous year. Because our data are based on the year and not actually on the day of exit we will not precisely capture income flows before and after the day of labor market exit. This is why we focus on the years prior to and after exit and do not include the actual year of exit in our tables.

12. All observations in our sample are weighted. Longitudinal weights of the last year of work (t) are assigned. These weights make the sample representative of the population born in the range of years consistent with each age group and sample period. For example, in the PSID our sample period is from 1990 to 1996. Our sample weights in
the PSID makes the 25-49 year-old sample representative of men born between 1941 and 1971 who exited the labor force sometime between 1990 and 1996. The sample weights in the other data sets and age groups yield samples that represent populations similarly defined.

13. GSOEP, PSID and SLID data are collected on labor earnings and labor force participation in the preceding calendar year. BHPS data on labor earnings and labor force participation are for September 1 of the previous year to September 1 of the current (survey) year. To be in our sample a worker must have experienced his last year of work no earlier than 1990. In tables showing income for up to three years prior to exit, we use PSID and GSOEP data from income years 1987-1989 for those who last worked in 1990. Note also that we use unbalanced panels in these tables.

14. We focus on men aged 55 to 67 in Figure 1 because these are the ages at which the hazard of a long-term labor market exit rises substantially in all four countries. In tables available from the authors we show that at earlier ages exit rates are modest (less than 5 percent in each country) and there is little difference in these rates across the four countries. We do not present or plot values at ages with fewer than 35 men.

15. The conceptualization of a worker’s pension and social security rights as an asset whose value varies over his or her life cycle is an important innovation in the retirement literature. See Quinn, Burkhauser, and Myers (1990) for an early use and review of this conceptualization and its importance in modeling retirement decisions and Quinn and Burkhauser (1998) and Lumsdaine and Mitchell (1999) for more recent reviews.


17. Income is non-zero in t+1 and t+2 because men who work no more than 52 hours per year are considered to have effectively left the labor force even if they have positive labor earnings. However, in Great Britain, the differences in the time unit for yearly income may also play a role at younger ages.

18. The United States eligibility criteria for disability benefits is among the strictest in industrial countries – inability to perform any substantial gainful activity – and social security beneficiaries per 1000 workers are lower in the United States than in Great Britain or Germany. See Aarts, Burkhauser and de Jong (1998) for a fuller discussion.

19. Appendix Tables 2A, 3A, 4A, and 5A provide detailed information on mean post-government household income (i.e. total gross household income minus all taxes) as well as on key sources of that income for each of the three year before and after the death of a household head or spouse for the United States (Table 2A), German (Table 3A), Great Britain (Table 4A), and Canada (Table 5A).

20. Appendix Tables 6A, 7A, 8A, and 9A provide detailed information on mean post government household income (i.e. total gross household income minus all taxes) as well as on key sources of that income for each of the three years before and after death of a
household head or spouse for the United States (Table 6A), German (Table 7A), Great Britain (Table 8A), and Canada (Table 9A).

21. Note that in the United States studies looking at the replacement rate of survivors benefits often compare the survivor’s benefits to the total benefit the husband and wife receive as couples. A worker’s retirement benefit is based on an average of the worker’s lifetime earnings (AIME). Over the period we analyze, a full benefit was paid to those who requested benefits at age 65. The benefit is the worker’s primary insurance amount (PIS). For married workers, a spouse benefit is provided which equals 50 percent of the worker’s PIS. At the death of the worker or spouse, the survivor receives only the PIA amount. Hence, a survivor’s total social security benefit would equal 67 percent of the benefit paid to the worker and spouse while both were alive. This ratio can fall as low as 50 percent in the case when a head and spouse have identical earnings histories. But for those who died at age 70 or older in this time period, most wives had much lower AIME than their husbands and hence were more likely to receive the husband’s PIA as their survivor benefit rather than continuing to receive their own PIA. Notice that for the United States, the mean replacement rate for widows whose husband dies at age 70 and over is equal to .61, close to what we would expect of those households where social security is the dominate source of income. Importantly, since the income is adjusted for household size the “true” replacement income is .92 for an (e) value of .5 and 1.26 for an (e) value of 1.