

THE INS AND OUTS OF POVERTY IN ADVANCED ECONOMIES:
GOVERNMENT POLICY AND POVERTY DYNAMICS IN CANADA,
GERMANY, GREAT BRITAIN, AND THE UNITED STATES

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Comparative analysis of poverty dynamics—transitions and persistence—can yield important insights about the nature of poverty and the effectiveness of alternative policy responses. This manuscript compares poverty dynamics in four advanced industrial countries (Canada, unified Germany, Great Britain, and the United States) for overlapping six-year periods in the 1990s, focusing on the impact of government policies. The data indicate that relative to measured cross-sectional poverty rates, poverty persistence is higher in North America than in Europe. Most poverty transitions, and the prevalence of chronic poverty, are associated with employment instability and family dissolution in all four countries. However, government tax-and-transfer policies are more effective at reducing poverty persistence in Europe than in North America.

1. INTRODUCTION

Inequality in market income increased in many industrialized countries in the 1980s and 1990s (Gottschalk and Smeeding, 2000; Smeeding and Grodner, 2000). Much of the growing interest in cross-country comparisons of income inequality has centered on families near the bottom end of the income distribution—those in poverty—because they face the greatest challenges for maintaining a socially acceptable living standard and they account for a substantial share of government program costs.

Cross-country poverty comparisons typically focus on poverty rates at a point in time or trends over time (e.g. Blackburn, 1998; Jäntti and Danziger, 2000; Smeeding *et al.*, 2002; Biewen and Jenkins, 2005). Often an additional focus is on the impact of government social-welfare policies on poverty, with the intent being to aid the development of effective anti-poverty strategies (e.g. Smeeding, 2006). To fully understand poverty from a socio-economic and policy perspective, however, it is important to move beyond static comparisons of cross-section poverty by analyzing the dynamics of poverty. “Poverty dynamics” refers to the

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poverty flow patterns—transitions and persistence—that underlie the observed poverty rate at a point in time.

In this paper, I update and extend existing comparative work on poverty dynamics in advanced economies, focusing on the role of government tax-and-transfer policies in Canada, unified Germany, Great Britain, and the United States. Assessing the impact of government policies is important for developing effective policy responses, but data limitations have largely precluded such analysis using longitudinal data (with the exceptions of Oxley *et al.*, 2000, and OECD, 2001). I use data from the Cross National Equivalent Files (CNEF), which provide nationally representative panels that have been extensively analyzed and processed to enhance the comparability of variable definitions and content (Burkhauser *et al.*, 2001; Lillard, 2004). From these data, I constructed overlapping six-year panels from the 1990s, which I use to describe poverty transitions and persistence and assess the role of individual characteristics and government tax-and-transfer policies. Following most comparative analyses of poverty, I measure poverty in relative terms, although I supplement these analyses by also relying on the official U.S. poverty thresholds. In addition, I extend standard poverty measurements based on yearly income with a measure of chronic poverty, which relies on longer-term income flows (Rodgers and Rodgers, 1993).

After describing the basic issues and the CNEF data in the next section, I turn to descriptive and regression analyses of poverty transitions and persistence. The results reveal widespread similarities in the pattern and causes of poverty transitions and persistence across countries, although the picture that emerges suggests longer and more concentrated poverty in North America than in Europe. Household and individual characteristics and government tax-and-transfer policies are crucial for this pattern. Compared with other countries in the sample, in the United States the burden of poverty falls heavily on a few high-risk groups who face persistent poverty despite significant offsetting effects from government transfers. Government transfers also are less likely to lift individuals out of poverty in Canada than in the European countries.

2. COMPARATIVE POVERTY DYNAMICS USING THE CNEF

2.1. *Background*

Until the late 1980s, the lack of harmonized cross-country data sources largely precluded comparative studies of income inequality and poverty. Since then, several data sources have been developed that provide relatively consistent measurement of income and other variables across countries. The largest of these is the Luxembourg Income Study (LIS), which has provided harmonized data for a growing number of countries (now 25) since about the mid-1980s. The LIS has been used extensively to assess comparative developments in income inequality, poverty, and living standards (e.g. Blackburn, 1998; Osberg, 2000; Smeeding and Grodner, 2000).

The LIS data are based on static cross-sections, but the comparative analysis of poverty dynamics requires panel data sets that follow individuals and families over time. The CNEF are ideal in this regard, formed by taking existing household

panel surveys and creating comparable income and related variables over the 1980s and 1990s for four advanced industrial countries: Canada, Germany, Great Britain, and the United States.¹ These four countries provide a useful set of comparisons in regard to poverty. They are at similar levels of economic development and in general have faced a similar set of socio-economic factors—such as rising returns to skill and changes in family structure—that contributed to rising inequality in earnings and family income (for example, see the various contributions in McFate *et al.* (1995), regarding changes during the 1980s). Despite such similarities, these four countries also embody the systematic differences in social policy evident between North America and most of Europe, with European countries in general devoting a higher share of economic resources to social and income-support programs. By distinguishing between household income derived from market sources and disposable income after accounting for government taxes and transfers, the CNEF provides an ideal source for analyzing the impact of observed differences in government social policy.

Despite the potential importance of poverty dynamics for policy formulation (Burkhauser, 2001; Burkhauser and Smeeding, 2001), it has been the focus of only limited research in a comparative setting, probably due to data constraints. The comparative poverty chapter from the *Handbook of Income Distribution*, Vol. 1 (Jäntti and Danziger, 2000) lists only three or four separate studies of poverty dynamics, the most ambitious of which were written by a lengthy list of scholars from the countries analyzed (Duncan *et al.*, 1993, 1995). Subsequent studies include work done at the OECD (Oxley *et al.*, 2000; OECD, 2001) and several studies of the dynamics of child poverty (notably Bradbury *et al.*, 2001; Jenkins and Schluter, 2003).² Relative to this literature, the primary contribution of the present paper is its analyses of the effects of government tax-and-transfer policies and discussion of the general policy implications of the observed patterns in poverty dynamics.

2.2. Data and Definitions

The CNEF data files used for this study include data from nationally representative household panels for four countries: the Canadian Survey of Labor and Income Dynamics (SLID), the German Socio-Economic Panel (GSOEP), the British Household Panel Survey (BHPS), and the United States Panel Study of Income Dynamics (PSID).³ The German sample includes observations from the former East Germany as well as West Germany, and an oversample of foreign-born guest workers. The U.S. sample includes an oversample of low-income households. I used appropriate cross-section and longitudinal weights to ensure

¹Another recent example is the European Community Household Panel (ECHP), administered in 15 European countries during the years 1994–2001. Relative to the CNEF data used in the present study, the ECHP data do not extend to North America and do not separately identify income before and after government taxes and transfers.

²I include children in the samples of individuals used below but do not examine child poverty separately. Although a focus on children may be especially informative in regard to the effects of government programs on poverty, it is beyond the scope of this study.

³The underlying national panels have been used for studies of poverty dynamics in these countries separately: see Eberharter (2001) for Germany, Devicienti (2001) and Jenkins and Rigg (2001) for Great Britain, and Bane and Ellwood (1986) and Stevens (1999) for the United States.

that the analysis samples are representative of the population. For maximum comparability across sample definition and years, I constructed six-year panels for each country: income years 1993–98 for Canada and 1991–96 for Germany, Great Britain, and the United States.⁴

The CNEF files provide data on total household income before and after government taxes and transfers. In the analyses below, I refer to these two income measures as “market income” and “disposable income” (see Lillard, 2004, for additional details on their construction). Although the household is the unit of measurement for income, I examine poverty dynamics for individuals. To account for economies of scale in intra-household consumption, I defined per-person “equivalent income” as total household income divided by the square root of household size.⁵

For most of the analyses below, I set the poverty threshold at the level of equivalent disposable household income equal to 50 percent of the median value for each country in each year, and I identify individuals as being in poverty if their equivalent income (market or disposable) falls below that level. The resulting poverty measure is relative rather than absolute—i.e. it does not correspond to an economically meaningful definition of subsistence or impoverishment that is shared across the countries in my sample. Given the potentially adverse social consequences of relative deprivation and the difficulties inherent in defining and measuring a common consumption-based income threshold across countries, the relative poverty approach is commonly used in cross-country poverty comparisons; for example, the European Union sets its poverty threshold at 60 percent of median income.⁶ The use of a relative threshold leads to higher relative poverty rates in high-income countries than would an absolute threshold. Nevertheless, analyses using absolute poverty scales adjusted for purchasing power parity suggest that although the British poverty rate rises to a level above that in the U.S. when an absolute poverty threshold is used, the relative poverty positions of the four countries in my sample otherwise are unchanged (Smeeding *et al.*, 2002).

For comparative policy evaluation, it is important to note that in the U.S. tax-and-transfer payments are more closely tied to the official government poverty thresholds than to the relative threshold used here. The official U.S. thresholds were developed in the 1960s based on food expenditure needs of low income households (U.S. Census Bureau, 2006). In recent years, their value has been close to an income level equal to 40 percent of the median (Smeeding, 2006). My reliance on the 50 percent threshold therefore may bias the assessment of tax-and-transfer

⁴The complete CNEF panels include data for longer time periods than those used here. However, longitudinal analyses with the Canadian SLID are limited to six years, which is the maximum number of years that individuals remain in the panel; these data are only available beginning in income year 1993.

⁵The square-root transformation is most commonly used; for equivalence scales that treat adults and children identically, it lies at the midpoint of the range of assumptions regarding economies of scale in consumption. Past studies have found that the comparative results are relatively insensitive to the exact equivalence scale chosen (see e.g. OECD, 2001, Annex 2.B).

⁶The specific threshold chosen has limited implications for comparative poverty dynamics (see OECD, 2001). However, additional tabulations using the CNEF data (not reported) and results in Smeeding *et al.* (2002) indicate that the British income distribution is unusually dense within the range of commonly used thresholds, so that the relative British poverty rate varies depending on which threshold is chosen.

policies by systematically understating their impact in the United States. To account for this potential bias, I also present results for the U.S. based on the official U.S. poverty threshold.⁷

An additional measurement issue relates to the period used to define poverty-level income. In particular, some movements above and below the threshold represent changes in income and living standards that are too small to be economically meaningful. Duncan *et al.* (1995) and others have handled this problem by restricting poverty transitions to those that involve an income change of at least 20 percent. A more formal approach was suggested by Rodgers and Rodgers (1993), who noted that analyses of poverty duration may misrepresent the permanence of low living standards by ignoring the degree to which income lies above or below the poverty threshold. They proposed a measure of poverty status that relies on permanent income, or maximum sustainable consumption, over multi-year periods. In the empirical analyses, I use a simplified variant of Rodgers and Rodgers' measure, referred to below as "average-income" or "chronic" poverty. This variable takes the value 1 if average yearly equivalent income over the six-year sample frame falls below the average poverty threshold for the same period and the value 0 otherwise.⁸

Income fluctuations over periods shorter than a year also may be distressing. Moreover, because social assistance is tied to income flows over sub-annual periods in some countries (for example, Great Britain), an annual measurement frame may miss movements in income and poverty status that are relevant for social policy. Available data preclude a comparative analysis of poverty and income flows over shorter time periods, but the possibility of short-term economic distress implies that the yearly dynamics analyzed here may not cover the full range of policy-relevant outcomes.

3. DESCRIPTIVE ANALYSES OF POVERTY RATES AND DYNAMICS

To identify the basic sample characteristics, Table 1 shows annual poverty rates and household income statistics for individuals in the complete sample of households (all ages) for the four countries. The rates of market income poverty are quite similar across these countries but highest in Germany. By contrast, the rate of disposable income poverty is lowest in Germany, slightly higher in Great Britain and Canada, and significantly higher in the U.S., although the U.S. rates are lower when the official threshold is used. For comparison purposes, the table also lists the rate of disposable income poverty tabulated from the LIS, based on the same 50 percent threshold used here; these data are only available for one or

⁷I use the official poverty threshold for a single-person family. This represents an approximation, because the official U.S. poverty thresholds differ according to family size and composition. However, the approximation is minor, as the implied equivalence scale for the official U.S. poverty threshold is close to the square root scale used here (Ruggles, 1990).

⁸Duncan and Rodgers (1991), Hill and Jenkins (2001), and the OECD (2001) also used this measure; it corresponds to the special case of the Rodgers' measure with the discount rate set to zero. The assumption of a zero interest rate has little impact on the specific results obtained in the present setting, and in any case the proper discount rate is unclear. For example, the discount rate perhaps should not be applied symmetrically to incomes above and below the poverty line, since poor families often are liquidity constrained (Jäntti and Danziger, 2000, p. 323).

TABLE 1
POVERTY RATES AND HOUSEHOLD DISPOSABLE INCOME STATISTICS (ALL HOUSEHOLDS)

Year	Market Income Poverty Rate	Disposable Income Poverty Rate	Disposable Income Poverty Rate (external source) st	Median Income (disposable), 1996 US\$	Standard Deviation (disposable), 1996 US\$
Percentages					
<i>Panel A: Canada (1993–98)</i>					
1993	24.2	11.0		35,559	23,451
1994	24.4	12.1	11.5	34,664	23,418
1995	24.0	11.6		34,371	23,354
1996	25.5	12.5		34,126	24,789
1997	24.8	12.3	11.9	34,590	26,668
1998	24.1	12.2		36,259	28,292
<i>Panel B: Germany (1991–96)</i>					
1991	25.8	10.0		23,656	16,315
1992	26.7	9.5		23,986	15,923
1993	27.5	9.5		25,156	16,857
1994	28.9	10.0	8.5	24,603	17,068
1995	28.3	9.8		25,420	17,118
1996	29.6	9.4		25,715	19,626
<i>Panel C: Great Britain (1991–96)</i>					
1991	23.1	11.3	14.5	27,789	21,006
1992	24.4	11.4		28,053	18,400
1993	24.8	11.9		27,617	19,028
1994	24.0	10.9		28,295	22,106
1995	24.0	11.0	13.2	28,640	19,222
1996	24.0	11.0		29,262	19,917

Panel D: United States (1991–96)

	50% Threshold		Disposable Income Poverty Rate (external source) ^a	Official Poverty Threshold		Median Income (disposable), 1996 US\$	Standard Deviation (disposable), 1996 US\$
	Market Income Poverty Rate	Disposable Income Poverty Rate		Market Income Poverty Rate	Disposable Income Poverty Rate		
	Percentages						
1991	22.7	17.5	17.9	19.0	11.2	33,626	35,511
1992	23.0	17.5		19.1	11.4	34,307	33,034
1993	24.0	18.3		21.2	13.5	31,940	38,923
1994	23.2	18.2	18.5	19.8	12.4	32,817	37,387
1995	22.7	17.3		19.5	11.2	33,085	38,391
1996	25.0	19.4		20.6	13.4	34,931	37,292

Notes: Each poverty rate represents the percentage of individuals whose equivalent household income is below 50 percent of the median equivalent household disposable income, calculated yearly.

^aSource: Osberg (2002).

Source: Cross-National Equivalent Files (CNEF); SLID for Canada, GSOEP for Germany (includes former East Germany for all income years), BHPS for Great Britain, and PSID for the United States (all author's calculations). Currencies converted to 1996 US\$ using OECD PPP exchange rates and U.S. GDP-PCE deflator.

two years over my sample frame (Osberg, 2002). The calculated poverty rates are similar between the CNEF and the LIS data for Canada and the U.S., but the CNEF rates are lower for Germany and higher for Great Britain. For Great Britain, the discrepancy is explained in part by the inclusion of Northern Ireland in the LIS sample, since poverty rates are higher there than in the rest of the United Kingdom (i.e. Great Britain; see ESRC, 2005).

Table 1 also lists the medians and the standard deviations of household disposable income (total, before translation to per-person equivalents). I expressed these figures in 1996 U.S. dollars, using the purchasing power parity (PPP) exchange rates from the OECD (2006) and the U.S. GDP deflator for personal consumption expenditures. These figures are provided for illustrative purposes only, since many researchers question the reliability of PPP adjustments for cross-national comparisons of living standards (e.g. Smeeding, 2006). The PPP income values indicate higher median living standards but also greater dispersion in the North American countries than in the European countries.

To provide a basic sense of how poverty incidence and persistence vary across countries, Table 2 lists average annual poverty rates, the percentage of individuals ever poor, and the prevalence of continuous and chronic poverty. The two panels of the table divide the sample into the “working-age population,” for whom the household head is under age 65, and the “older population,” for whom the household head is age 65 or over.

For individuals from working-age households in Panel A, the calculations show substantial variation in the role of the tax-and-transfer system across these countries, with an especially small role in the U.S.: based on the 50 percent threshold, taxes and transfers are associated with a reduction in the annual poverty rate of just over one percentage point there, compared with six to eight percentage points in the other countries. The association between poverty rates and the tax-and-transfer system in the U.S. is larger when the official poverty threshold is used but remains smaller than in the other three countries.⁹ In subsequent columns of the table, the calculations of poverty incidence and persistence show that the annual poverty headcount alone is not an adequate indicator for comparing poverty experiences across countries. Relative to the percentage of individuals ever poor (poverty incidence), Great Britain has a low share of individuals always poor or chronically poor, suggesting relatively low poverty persistence there (especially for disposable-income poverty). Conversely, relative to poverty incidence, Canada has a high share of individuals always poor or chronically poor, to an extent about equal to that in the United States. The association between the tax-and-transfer system and poverty persistence is large in Germany and Great Britain, reducing the incidence of continuous poverty and chronic poverty by more than half, with a smaller association in Canada and an especially small association in the United States.

Panel B of Table 2 shows much higher poverty rates for the older population than for the working-age population (Panel A) in general. Poverty rates based on market income range from about 50 percent to nearly 85 percent for this group.

⁹I omitted measures of statistical significance from Tables 2–5 to conserve on space. However, all cross-country differences referred to in the text are statistically significant at the 5 percent confidence level or better (based on large-sample tests of equality of proportions).

Government taxes and transfers reduce the poverty rate substantially in each country, although the rates based on disposable income for this group generally remain above those for the working-age population. Moreover, poverty for the older population tends to be of relatively long duration, with about 30–50 percent of individuals in disposable-income poverty finding themselves chronically poor (see the figures in parentheses in the final column of the table). The sole exception to this pattern of relatively severe poverty for the older population is Canada, where the disposable-income poverty rate for this group is about one-half that of the working-age population (consistent with Smeeding, 2006). The percentage of individuals always poor or chronically poor suggests that poverty persistence also is relatively low for the older population in Canada, in contrast to relatively high poverty persistence for the working-age population.

These comparisons of Panels A and B of Table 2 indicate that the dynamics of poverty and the role of government policies are different between working-age and older families. For example, whereas private pensions are a primary source of retirement support in the U.S., both Canada and Germany rely heavily on public pension programs, with substantial reductions in disposable-income poverty among retirees arising as a result. The implications of these government programs for poverty dynamics among the older population merit a separate paper. Therefore, in the remainder of this paper, I focus on poverty dynamics and policy among the working-age population.

Table 3 sheds additional light on poverty dynamics by listing poverty entry and exit rates and mean duration of poverty spells (completed or incomplete) for the working-age population. The entry and exit rates are tabulated from the “at-risk” population: poverty entries are calculated from the pool of individuals not in poverty, poverty exits are calculated from the pool of individuals in poverty, and the observations are pooled over the five pairs of years that span each complete six-year panel. Government taxes and transfers generally reduce entry rates and increase exit rates, although this effect is substantially larger in Germany and Great Britain than in Canada and the U.S. (based on the 50 percent and official thresholds). The relatively transitory nature of British poverty and relatively persistent nature of Canadian poverty identified in Table 2 (Panel A) also can be seen in Table 3. In particular, individuals in Great Britain face relatively high entry and exit rates to and from poverty and a relatively low mean duration, while Canada has relatively low exit rates and high mean duration.

The relatively low poverty persistence in Germany and Great Britain and relatively high persistence and limited role of government tax-and-transfer policies in Canada and the U.S. can be seen in Table 4 as well. The left panel lists the share of total poverty spells that fall into the three duration categories shown. In each country about 65–80 percent of all spells last one to two years. As emphasized in the seminal work of Bane and Ellwood (1986), however, a more accurate assessment of how widely the burden of poverty is born can be obtained by examining the share of total years in poverty attributable to spells of varying durations. The right panel of Table 4 displays these results. The share of total time spent in poverty attributable to spells of five to six years is about 10–20 percentage points lower in Germany and Great Britain than in Canada and the United States. Government taxes and transfers tend to widen rather than narrow the gap between

TABLE 2
POVERTY INCIDENCE AND DURATION

		<i>Panel A: Working-Age Population (Head 16-64)</i>			
	Number of Individuals ^a	Percentages			
		Annual Poverty Rate	In Poverty at Least Once	Always in Poverty ^b	Chronic Poverty ^{b,c}
Canada					
Market income	24,093	19.5	32.7	8.0 (0.24)	14.5 (0.44)
Disposable income	24,093	12.6	25.3	3.5 (0.14)	9.1 (0.36)
Germany					
Market income	9,809	16.2	27.6	3.6 (0.13)	9.1 (0.33)
Disposable income	9,809	9.7	18.1	1.4 (0.08)	4.4 (0.24)
Great Britain					
Market income	6,465	15.9	26.1	2.5 (0.10)	7.0 (0.27)
Disposable income	6,465	9.9	21.2	0.4 (0.02)	2.9 (0.14)
United States					
Market income	6,687	18.3	30.7	5.5 (0.18)	12.2 (0.40)
Disposable income	6,687	17.0	30.5	3.9 (0.13)	10.6 (0.35)
U.S. (official threshold)					
Market income	6,687	15.0	25.7	4.1 (0.16)	8.8 (0.34)
Disposable income	6,687	11.8	22.2	2.3 (0.10)	6.0 (0.27)

Panel B: Older Population (Head 65+)

	Number of Individuals ^a	Annual Poverty Rate	Percentages		
			In Poverty at Least Once	Always in Poverty ^b	Chronic Poverty ^{b,c}
Canada					
Market income	2,908	65.1	71.9	52.3 (0.73)	62.5 (0.87)
Disposable income	2,908	6.6	14.0	1.4 (0.10)	3.9 (0.28)
Germany					
Market income	1,047	82.8	92.1	74.1 (0.80)	86.5 (0.94)
Disposable income	1,047	12.4	25.9	3.2 (0.12)	7.7 (0.30)
Great Britain					
Market income	976	60.6	76.9	45.4 (0.59)	61.3 (0.80)
Disposable income	976	17.5	35.2	3.2 (0.09)	11.8 (0.34)
United States					
Market income	841	53.5	76.9	31.9 (0.41)	52.1 (0.68)
Disposable income	841	24.4	40.8	10.5 (0.26)	18.7 (0.46)
U.S. (official threshold)					
Market income	841	48.1	71.8	27.6 (0.38)	42.1 (0.59)
Disposable income	841	14.6	28.5	3.9 (0.14)	10.0 (0.35)

Notes:

^aNumber of persons present in all six waves of the panel data. The larger number of observations available in the six separate cross-sectional samples was used to calculate annual poverty rates.

^bFigures in parentheses show the ratio of the number of persons with the indicated poverty status to the number of persons in poverty at least once.

^cPercentage of the sample for whom average equivalent income over the six sample years falls below the average poverty line over the same period (see text).

TABLE 3
TRANSITION RATES AND MEAN DURATION (WORKING-AGE HOUSEHOLDS)

	Annual Poverty Rate	Yearly Rate of Entry ^a	Yearly Rate of Exit ^b	Mean Duration ^c
Percentages				
Canada				
Market income	19.5	5.1	24.4	3.1
Disposable income	12.6	4.5	31.9	2.6
Germany				
Market income	16.2	4.9	26.9	2.4
Disposable income	9.7	3.1	42.0	1.9
Great Britain				
Market income	15.9	4.3	34.8	2.2
Disposable income	9.9	3.8	55.2	1.6
United States				
Market income	18.3	5.3	31.4	2.3
Disposable income	17.0	5.5	37.3	2.1
U.S. (official threshold)				
Market income	15.0	4.3	32.8	2.3
Disposable income	11.8	3.9	41.7	2.0

Notes:

^aNumber of persons entering poverty between t and $t + 1$, as a share of the population not in poverty in t , averaged over the period.

^bNumber of poor in t who exit poverty in $t + 1$, as a share of the population in poverty in t , averaged over the period.

^cAverage length of observed (censored) poverty spells, in years.

the European countries and the North American countries, with spells of five to six years accounting for a very small share of total time spent in disposable-income poverty in Great Britain.

It is perhaps somewhat surprising to discover that Canada exhibits poverty persistence similar to that in the U.S., after taking account of the impact of government taxes and transfers (Tables 2–4). This finding conflicts to some degree with Blank and Hanratty's (1993) findings regarding large poverty-reducing impacts of Canadian social policy, but it is consistent with Duncan *et al.*'s (1995) findings regarding high poverty rates and lengthy poverty durations in the U.S. and Canada compared with European countries.

4. FACTORS ASSOCIATED WITH TRANSITIONS AND CHRONIC POVERTY

4.1. *Descriptive Analyses of Transitions*

An assessment of factors associated with poverty transitions and persistence is critical for understanding the broad economic and policy implications of the basic patterns identified in the preceding section. In the remainder of the paper, I examine disposable-income poverty only, to keep the analysis manageable and to direct attention to the income and spending patterns actually experienced by the population in each country. In addition to factors examined by Bane and Ellwood (1986) and subsequent authors—primarily family relationships within the household and employment status, along with selected individual characteristics such as

TABLE 4
POVERTY SPELL DURATIONS FOR PERSONS EVER POOR (WORKING-AGE HOUSEHOLDS)

	Annual Poverty Rate (%)	% Share of Poverty Spells Lasting:			% Share of Total Years in Poverty for Spells Lasting:		
		1-2 years	3-4 years	5-6 years	1-2 years	3-4 years	5-6 years
Canada							
Market income	19.5	72.5	14.0	13.5	27.8	20.6	51.6
Disposable income	12.6	77.7	14.0	8.3	37.6	24.8	37.6
Germany							
Market income	16.2	65.1	19.0	15.9	35.2	27.0	37.9
Disposable income	9.7	76.5	14.5	9.1	48.0	25.3	26.7
Great Britain							
Market income	15.9	68.4	19.4	12.2	39.7	29.5	30.8
Disposable income	9.9	84.2	13.2	2.6	63.9	27.1	9.0
United States							
Market income	18.3	68.5	14.1	17.4	34.9	20.0	45.1
Disposable income	17.0	73.0	13.7	13.3	41.7	21.1	37.2
U.S. (official threshold)							
Market income	15.0	69.3	14.0	16.8	36.7	20.0	43.3
Disposable income	11.8	75.8	13.2	11.0	45.6	22.3	32.1

the household head's educational attainment—I examine the direct impact of changes in government transfer payments.

Following a common approach from past work, Table 5 lists the results of a descriptive analysis of events associated with poverty entries and exits. The samples for these tabulations are limited to observations with observed transitions (poverty entries or exits), with the data pooled over the five-year pairs that constitute the complete sample frame. After first accounting for poverty transitions associated with any change in family structure, the table then lists sequentially the share of transitions associated with changes in the number of full-time workers (defined as those working at least 1750 hours in the year) and changes in primary sources of income (based on a hierarchical ordering).¹⁰ Changes in family structure are frequently associated with poverty transitions, especially in Canada (consistent with Finnie and Sweetman, 2003). In each country, divorce and marriage are the most common family events associated with poverty entry and exits, although poverty entries also are commonly associated with the formation of new families that split off from existing households (tabulations for family transitions other than divorce and marriage are not shown but are available on request to the author).

Regarding income sources, the share of poverty transitions that are primarily associated with changes in earnings (conditional on the number of full-time workers) is about 6–14 percentage points higher in the U.S. than in the other countries, suggesting relatively high earnings instability for low-income families in the United States. By contrast, the share of poverty transitions that are primarily associated with changes in government transfers are about 10–20 percentage points lower in the U.S. than in the other countries, with an especially large gap evident in regard to exits from poverty vis-à-vis Germany and Great Britain. The results for the U.S. compared with other countries are similar whether the relative poverty threshold or the official U.S. poverty threshold is used, although the gap is smaller based on the official U.S. threshold. Exits from poverty also are less frequently associated with government transfers in Canada than in Germany and Great Britain.

On net, the descriptive results in Table 5 indicate that changes in family structure and labor earnings are most frequently associated with poverty transitions in each country. However, government transfer policies loom large as well, as they are associated with a substantial share of poverty exits in Germany and Great Britain compared with Canada and especially the United States.

4.2. *Regression Analyses*

Although the results in Table 5 identified factors associated with poverty transitions, the restriction of the sample to observed transitions implies that the

¹⁰In the PSID data for the United States, data on hours worked are not available for individuals other than the head and spouse after income year 1992. This necessitated the restriction of the full-time work and months worked variables to the head and spouse for all countries, for appropriate cross-country comparison. Family labor earnings in each country, however, includes earnings of individuals other than the head and spouse. As such, the association between earnings changes and poverty transitions may be overstated somewhat relative to the association between employment stability and poverty transitions.

TABLE 5
FREQUENCY OF FAMILY AND JOB-RELATED EVENTS ASSOCIATED WITH POVERTY TRANSITIONS (WORKING-AGE HOUSEHOLDS; DISPOSABLE-INCOME POVERTY)

		Percentage of Total Entries Associated with:					
		<i>Entries</i>					
		Percentage of Total Entries Associated with:					
		<i>Exits</i>					
		Percentage of Total Exits Associated with:					
		<i>Entries</i>					
		Percentage of Total Exits Associated with:					
		<i>Exits</i>					
	Number of Observations	Change in Family Structure	Fewer Full-Time Workers ^a	Labor Earnings ^b	Largest Decrease in:		
					Gov. Transfers ^b	Capital and Other Income ^b	Other
Canada	4,874	46.9	6.4	27.3	13.3	6.0	0.2
Germany	1,310	38.8	10.4	31.1	14.5	5.0	0.3
Great Britain	938	41.5	8.1	33.6	12.8	3.7	0.3
United States	1,557	39.0	10.4	40.9	4.0	5.2	0.5
U.S. (official threshold)	1,345	38.7	9.2	39.2	6.1	5.9	0.9
		<i>Exits</i>					
		Percentage of Total Exits Associated with:					
		<i>Exits</i>					
		Percentage of Total Exits Associated with:					
		<i>Entries</i>					
	Number of Observations	Change in Family Structure	More Full-Time Workers ^a	Labor Earnings ^b	Largest Increase In:		
					Gov. Transfers ^b	Capital and Other Income ^b	Other
Canada	5,363	39.1	15.8	28.3	11.5	5.2	0.1
Germany	1,417	24.4	14.2	32.2	24.2	4.7	0.3
Great Britain	952	28.3	12.2	35.5	18.3	5.5	0.2
United States	1,758	29.3	16.4	42.8	5.3	5.5	0.7
U.S. (official threshold)	1,488	27.7	14.4	42.6	8.8	5.8	0.6
<i>Notes:</i>							
^a No change in family structure. Full time defined as at least 1,750 hours per year (head and spouse only).							
^b No change in family structure or in full-time work by the head and spouse.							

results do not fully characterize the share and incidence of characteristics and events that account for poverty transitions. To provide a more complete and quantitatively precise assessment, I now turn to regression analyses of poverty entries, poverty exits, and the incidence of chronic poverty. For the entry and exit regressions, I use a logit specification and pool observations over the five pairs of years that span each complete six-year panel.¹¹ The explanatory variables include characteristics observed in the base year of each sequential pair and changes in characteristics observed between the base year and the next year. I use a similar framework for the analysis of chronic poverty. However, chronic poverty is based on annual income measured over the entire six-year panel; as such, each sample individual contributes only one observation, and the explanatory variables are limited to characteristics observed in the first sample year. Because the U.S. results are similar based on the relative and official poverty thresholds except in one case noted below (see note 17), to conserve on space I only report results based on the relative threshold.

My specific regression approach captures fewer of the complexities of poverty dynamics than more elaborate approaches used in recent analyses that focus on individual countries. For example, in her analysis of PSID data, Stevens (1999) accounted for the role of duration dependence and repeat spells of poverty through the use of a carefully designed discrete hazard model. The six-year panels used here are too short and entail too much censoring of poverty spells for reliable, informative estimation of such models. Nonetheless, the simpler approach used here can yield important insights about covariate effects on poverty dynamics, which are useful for policy evaluation.

Tables 6 and 7 list the results for the poverty entry and exit regressions. In each table, the top row lists the mean value of the dependent variable (in percentage terms).¹² The explanatory variables are all dummy variables taking on the value 0 or 1 (the regressions also include year dummies, but their coefficient effects are not reported). The magnitude of the association between the dependent and explanatory variables is expressed in percentage terms relative to the omitted categories listed in the table, based on a straightforward transformation of the fitted probabilities across the entire sample; I interpret these associations in *ceteris paribus* terms.¹³ The means of the explanatory variables are listed in the column directly to the right of the corresponding coefficients, to help provide a clearer assessment of the relative magnitudes of the covariate associations (for example, events that are closely related to poverty transitions may be rare and therefore have a small net impact on transitions).

¹¹I adjusted the estimated standard errors to account for the dependence across multiple observations per individual.

¹²These means of the entry, exit, and chronic poverty variables differ slightly from those listed in Tables 2 and 3, due to the loss of some observations resulting from missing data.

¹³The regression specification is $y_i = F(X_i\beta)$, where i indexes individuals, y is a 0–1 dependent variable, X_i is a vector of discrete explanatory variables, β is a vector of estimated coefficients, and the function F is the logit function. The probability effect of element x^j of X based on its coefficient b^j of β is calculated by summing over the entire set of observations as follows (where the w_i are individual sampling weights normalized to sum to the sample size N):

$$\text{effect of } x^j = \frac{1}{N} \sum_i w_i [F(X_i\beta + (1 - x_i^j)b^j) - F(X_i\beta - x_i^j b^j)]$$

TABLE 6
DETERMINANTS OF POVERTY ENTRIES (WORKING-AGE HOUSEHOLDS; DISPOSABLE INCOME POVERTY)

Entry Rate → Explanatory Variables	Canada (1994-98)		Germany (1992-96)		Great Britain (1992-96)		United States (1992-96)	
	4.2	2.7	4.6	4.8				
	Probability Effect	Mean	Probability Effect	Mean	Probability Effect	Mean	Probability Effect	Mean
Head age (omitted = age 30-50)								
Head < 30	0.6**	13.8	1.2**	10.9	3.7**	7.2	2.5**	12.1
Head 51-64	-0.7**	17.2	-0.9**	28.6	-1.8**	19.8	-0.2	14.8
Head education (omitted = HS grad)								
Low education	0.6**	18.8	1.0**	14.3	N/A	N/A	3.4**	6.8
High education	-1.1**	54.6	-1.4**	21.4	N/A	N/A	-3.3**	56.4
Individual age (omitted = adult)								
Child	0.9**	26.2	1.1**	20.4	1.4**	32.2	1.1**	26.9
Family type (omitted = 2 adults w/children)								
Single adult	2.0**	5.9	2.1**	10.2	5.1**	1.6	2.7**	11.7
Adults no children	-0.2	13.7	1.2**	14.8	0.7	8.4	-2.1**	15.5
Single with children	3.4**	8.3	2.5**	7.7	7.0**	8.2	5.9**	10.1
Other family type	0.6	5.6	-0.3	3.9	3.7**	1.9	0.9	2.2
Number of full-time workers ^a (omitted = 1)								
No workers	7.7**	15.9	6.6**	17.1	6.5**	31.9	5.2**	10.8
Two workers	-2.4**	25.2	-2.5**	16.7	-2.9**	14.6	-2.4**	31.5
Decline in full-time work ^a (omitted = no change)								
Less work—head	9.8**	7.6	8.1**	7.4	11.0**	9.2	8.6**	5.8
Less work—spouse	4.7**	6.7	5.0**	4.3	4.5**	5.1	5.3**	4.9
Decline in months worked ^b (omitted = no change)								
Fewer months—head	2.4**	16.1	0.2	13.5	2.6**	14.9	1.2**	13.0
Fewer months—spouse	2.3**	11.7	-0.3	9.1	2.6**	8.2	1.9**	7.5
Change in family type (omitted = no change)								
Divorce	13.2**	3.3	16.7**	2.0	21.6**	2.2	22.7**	3.3
Other family change	1.3**	6.4	1.1**	4.8	-1.1	3.4	0.6	8.1
Gov. transfers down >20%	1.5**	30.3	1.2**	18.9	3.4**	20.4	2.5**	9.9
Log-likelihood	-13,316.4		-4,196.2		-2,874.1		-4,431.9	
Number of observations	92,037		45,274		19,496		24,351	

Notes: Based on logit regression results; regressions include year dummies (coefficients not listed). All coefficient effects and variable means expressed as percentages (see text).

* and ** indicate that the associated regression coefficient is significant at the 5% level or 1% level, respectively. N/A indicates the variables are not available in the given sample. Regressions account for non-independence of multiple observations per sample individual.

^aFull time defined as at least 1750 hours per year (head and spouse only).

^bDefined as annual hours worked having decreased by at least 160 (without a change in full-time work).

TABLE 7
DETERMINANTS OF POVERTY EXITS (WORKING-AGE HOUSEHOLDS; DISPOSABLE INCOME POVERTY)

Exit Rate → Explanatory Variables	Canada (1994-98)		Germany (1992-96)		Great Britain (1992-96)		United States (1992-96)	
	Probability Effect	Mean	Probability Effect	Mean	Probability Effect	Mean	Probability Effect	Mean
Head age (omitted = age 30-50)								
Head < 30	3.6	28.8	-7.7**	27.5	-9.9**	24.3	5.7**	27.8
Head 51-65	-1.5	14.0	-6.4*	28.1	2.0	11.2	8.5*	8.7
Head education (omitted = HS grad)								
Low education	-1.3	35.3	-2.4	25.0	N/A	N/A	-9.4**	28.6
High education	5.0**	30.8	-3.2	9.8	N/A	N/A	13.2**	23.0
Individual age (omitted = adult)								
Child	-2.1**	30.8	-0.2	21.4	-3.2	38.9	-2.4	39.4
Family type (omitted = 2 adults w/children)								
Single adult	-2.8*	16.8	-2.1	29.6	-18.9**	11.3	-9.8**	12.9
Adults no children	5.1**	6.5	1.6	11.3	-20.4**	4.2	7.4	3.3
Single with children	-2.3*	29.5	5.3	27.7	-0.7	31.4	-10.9**	52.7
Other family type	0.4	5.0	5.7	3.5	20.2	2.7	2.4	2.7
Number of full-time workers ^a (omitted = 1)								
No workers	-13.2**	75.1	-7.4*	76.1	-6.0*	76.1	-15.6**	59.0
Two workers	6.3**	3.0	-20.9**	2.6	-15.1	1.1	11.4**	4.3
Increase in full-time work ^a (omitted = no change)								
More work—head	32.6**	11.6	43.5**	6.7	17.5**	12.5	24.0**	13.4
More work—spouse	22.6**	5.2	40.2**	2.5	23.0**	2.6	46.1**	3.2
Increase in months worked ^b (omitted = no change)								
More hours—head	12.7**	19.1	12.3**	14.1	9.4**	16.3	6.5**	20.0
More hours—spouse	10.0**	10.7	18.3**	3.7	17.5**	7.4	24.9**	6.0
Change in family type (omitted = no change)								
Marriage	37.8**	5.4	16.6**	2.8	47.6**	5.2	32.6**	5.0
Other family change	14.1**	9.9	-0.2	6.3	1.4	4.1	-2.6	12.8
Gov. transfers up >20%	10.6**	27.6	15.8**	56.5	17.2**	42.3	11.5**	62.6
Log-likelihood	-7,356.1		-1,462.0		-1,054.7		-2,260.5	
Number of observations	13,795		2,357		1,693		4,205	

Notes: Based on logit regression results; regressions include year dummies (coefficients not listed). All coefficient effects and variable means expressed as percentages (see text).

* and ** indicate that the associated regression coefficient is significant at the 5% level or 1% level, respectively. N/A indicates the variables are not available in the given sample. Regressions account for non-independence of multiple observations per sample individual.

^aFull time defined as at least 1750 hours per year (head and spouse only).

^bDefined as annual hours worked having increased by at least 160.

The results in Table 6 show large associations between various characteristics and the probability of poverty entry. It is informative to compare the coefficients to the mean exit rates listed at the top of the table. For example, individuals in Canadian households characterized by a single adult with children are 3.4 percentage points more likely to enter poverty during a year than are individuals in households with two adults and no children, implying nearly a doubling of the poverty risk relative to the sample base rate of 4.2 percent. More generally, both the impact and incidence of characteristics associated with poverty entries are quite similar across the four countries. Among the exceptions is the age of the household head: individuals in households with young heads (age <30) face a greater elevation in the risk of poverty entry in Great Britain and the U.S. than in Canada and Germany. In addition, in the U.S. individuals in households whose head has low educational attainment face much higher risks of poverty entry than do individuals in households with higher educational attainment.¹⁴

Among the events that are related to poverty entries, in all countries divorce has the largest association: individuals in households that experience a divorce face a probability of poverty entry that is three to six times larger than individuals in households with stable marital status.¹⁵ However, the incidence of divorce is low compared with the loss of full-time jobs by the family head or spouse, which substantially increases the likelihood of a poverty entry as well. Given their impact on poverty entries and their relatively high incidence, in general the presence of no full-time workers and the household head's loss of full-time work are associated with larger increases in the risk of poverty entry than all of the other variables; the exception is the U.S., where divorce has a larger impact than full-time work status. Work instability, as measured by changes in annual hours worked equal to at least one month of full-time work, is more frequent than loss of full-time work but has a much smaller impact on poverty entries, especially in Germany, where its impact is essentially zero.

Turning to the direct impact of government policies, the regressions also include an indicator for whether government transfers fell by more than 20 percent.¹⁶ Based on the magnitude of their association with poverty entries and their frequency, declines in government transfer payments of at least 20 percent are associated with roughly the same increase in the risk of poverty entry as changes in full-time work status by spouses.¹⁷ However, the relatively low frequency of declines in government transfer payment in the U.S. for this group implies that the net effect of government transfer payments on poverty entries is smaller in the U.S. than in the other countries.

¹⁴Data on educational attainment are not available in the British sample.

¹⁵Using PSID and GSOEP data for the 1980s, Burkhauser *et al.* (1991) found a larger overall impact of divorce on economic status in Germany than in the United States. The smaller relative association between divorce and poverty entries found here for Germany may be due to differences between American and German social policy or policy changes between the 1980s and 1990s. Moreover, Table 6 indicates that the incidence of divorce in the non-poverty population is lower in Germany than in the United States.

¹⁶The choice of a 20 percent change is somewhat arbitrary but is intended to identify meaningful changes in transfer payments; increasing this threshold would reduce the incidence of changes in transfer payments but increase their impact on the probability of poverty transitions.

¹⁷When I base the analysis on the official U.S. poverty threshold, the association between government transfer payments and poverty entries is smaller than that listed in Table 6.

Many of the results for the poverty exit regressions in Table 7 mirror the entry results in Table 6. Increases in full-time work and months worked by the head and spouse are associated with substantial increases in the probability of poverty exits. Marriage is associated with a large increase in the probability of exiting poverty, although this effect is much smaller in Germany than in the other countries.

Table 7 also contains some surprises regarding the determinants of poverty exits. Individuals in households with young heads experience less frequent poverty exits in Germany and Great Britain but more frequent exits in the United States. Combined with their greater likelihood of entry in Table 6, the U.S. results for individuals in households with young heads suggest that this group faces substantial income churning around the poverty line there. Members of single adult families with children face low probabilities of poverty exits in Canada and especially the U.S., with statistically insignificant associations evident for Germany and Great Britain. Individuals in households with no workers are much less likely to exit poverty than those in working households. This effect is especially large in Canada and the U.S., although the relatively high incidence of poverty among families with one or two workers in the U.S. (about 40 percent, vs. about 25 percent in the other countries) suggests extensive working poverty there.

Regarding government transfers, an increase of at least 20 percent is quite common for the poverty population in each country and is associated with a substantial increase in the probability of exiting poverty. The main exception is Canada, where increases in government transfers of this size are relatively infrequent for individuals in the poverty population (as defined by my 50 percent relative poverty threshold). On net, increases in government transfers are associated with an increase in poverty exits of about three percentage points in Canada, versus seven to nine percentage points in the other countries. The net size of this association in the three countries other than Canada is larger than that for any other explanatory variable (except for “no full-time workers” in the U.S.), while in Canada the net size of this association is smaller than for the number of full-time workers and changes in the head’s full-time work status. The large impact of government transfers on poverty exits in the U.S. may seem surprising, given the high degree of poverty persistence in that country. However, the positive effects of government transfers are offset by the adverse influence of other factors, notably low educational attainment by the household head, the prevalence of single parenthood, and limitations in the household’s full-time work status, all of which substantially limit escapes from poverty in the United States.

To complete the analysis of poverty transitions and persistence, Table 8 displays results for the determinants of chronic poverty, which is defined based on average income across the six-year sample frame. The association between young headship and chronic poverty is essentially zero in the U.S., consistent with the income churning implied by the transition results in Tables 6 and 7. The educational attainment of household heads is associated with especially large differences in chronic poverty in the United States. Individuals in single-head families with children face high risks of chronic poverty in each country. This effect is much smaller in Germany than the other countries, however, again suggesting (as in Table 7) that German social policy places substantial emphasis on the well-being of this group. Finally, individuals in families with no full-time workers are

TABLE 8
DETERMINANTS OF CHRONIC POVERTY (WORKING-AGE HOUSEHOLDS; DISPOSABLE INCOME POVERTY)

Chronic Poverty Rate → Explanatory Variables	Canada (1994-98)		Germany (1992-96)		Great Britain (1992-96)		United States (1992-96)	
	Probability Effect	Mean	Probability Effect	Mean	Probability Effect	Mean	Probability Effect	Mean
Head age (omitted = age 30-50)								
Head < 30	1.9**	16.5	2.2**	16.6	1.5*	15.8	1.2	19.3
Head 51-65	0.1	14.8	0.2	24.5	-0.6	17.4	-0.2	13.7
Head education (omitted = HS grad)								
Low education	2.8**	21.3	1.6**	15.1	N/A	N/A	9.5**	10.9
High education	-3.5**	50.6	-0.5	20.2	N/A	N/A	-10.6**	51.6
Individual age (omitted = adult)								
Child	3.6**	28.9	1.2*	22.8	1.7**	28.3	1.9**	30.2
Family type (omitted = 2 adults w/kids)								
Single adult	6.8**	6.2	2.8**	11.4	2.0	4.7	-0.5	10.8
Adults no children	-0.8	11.7	0.9	12.8	-0.6	16.4	-7.5**	13.8
Single with children	7.6**	10.1	2.3**	9.2	5.8**	8.0	9.1**	13.3
Other family type	-2.2*	5.1	0.5	3.6	-2.1	2.5	-4.3	1.5
Number of workers (omitted = 1 worker)								
No workers	15.3**	22.6	6.5**	15.0	3.6**	25.8	16.9**	16.9
Two workers	-4.1**	21.9	-2.2**	21.3	-2.1*	20.0	-6.9**	25.6
Log-likelihood	-5,305.8		-1,048.4		-639.9		-1,704.8	
Number of observations	21,463		9,626		5,884		6,687	

Notes: Based on logit regression results. The dependent variable (chronic poverty) indicates whether an individual's average household equivalent income over the six sample years falls below the average poverty line over the same period. All coefficient effects and variable means expressed as percentages (see text). * and ** indicate that the associated regression coefficient is significant at the 5% level or 1% level, respectively. N/A indicates the variables are not available in the given sample.

especially likely to experience chronic poverty, although the effect is much larger in Canada and the U.S. than it is in Germany and Great Britain.

5. CONCLUSIONS

In this paper I compared the multi-year poverty experiences of representative panels of individuals in Canada, Germany, Great Britain, and the United States for six years during the 1990s. Employment status and family living arrangements, and changes therein, are the most important factors associated with poverty incidence and persistence among individuals from working-age households in these countries. This finding is consistent with the comparative findings of Duncan *et al.* (1993), Oxley *et al.* (2000), and OECD (2001), and individual-country analyses for Germany (Eberharter, 2001), Great Britain (Devicienti, 2001; Jenkins and Rigg, 2001) and the United States (Bane and Ellwood, 1986). However, I find that the association between employment status and poverty persistence is especially pronounced in Canada and the United States.

Government policies play a crucial role in accounting for differences in poverty dynamics between the North American countries and their European counterparts, consistent with the cross-section evidence presented in Smeeding (2006). Poverty persistence is high in Canada, where government transfer payments lift a smaller share of individuals from working-age families out of poverty than do government transfer payments in Germany and Great Britain. In the U.S., government transfers are commonly associated with poverty exits, but these effects are more than offset by the relationship between adverse individual and labor market characteristics—notably low education, single parenting, and instability in employment and earnings—and poverty persistence. The situation is different in Germany, where the social welfare system appears to provide substantial anti-poverty support to such high-risk groups. Government tax-and-transfer policies also are relatively effective in Great Britain, where poverty persistence based on disposable income is low relative to cross-section poverty headcounts and persistence in the other countries. This finding of relatively transitory poverty in Great Britain is broadly consistent with the results of Jenkins and Rigg (2001) and Devicienti (2001), both of whom also used the BHPS data. This pattern may arise in part from the high density of the British income distribution around my chosen poverty threshold (see note 6). However, the relatively low incidence of chronic poverty in Great Britain and the large association between poverty exits and government transfer payments there suggests that government policies play an important role.

Regarding more general policies to alleviate poverty, my findings confirm widely-held beliefs about the key contributions of family stability and work attachment for staying out of poverty in North America and Europe. This suggests important roles for individual behavior as well as public policies that strengthen family stability and work attachment; child care subsidies may be one example of such policies, enabling cash-strapped and time-strapped parents to effectively balance work and home commitments. Indeed, the persistence of U.S. poverty despite the large positive association between government transfers and poverty exits suggests that policies existing during my sample frame (prior to the 1996 U.S.

welfare reforms) were not adequate to remedy poverty there. Both educational attainment and full-time work status are critical for avoiding and escaping poverty in that country, suggesting that improved student access and commitment to education and direct labor market policies are needed to supplement government income support. Canadian income-support policies do not appear heavily oriented towards individuals in poverty by the definition used here (50 percent of median income), which may reflect a different operational definition of economic hardship embodied in Canadian social policy. By contrast, direct government transfers and other forms of social insurance appear to successfully reduce poverty persistence in Germany and Great Britain.

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