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Reconsidering the Divergence between Elderly, Child and Overall Poverty

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RECONSIDERING THE DIVERGENCE BETWEEN ELDERLY, CHILD AND OVERALL POVERTY*

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RECONSIDERING THE DIVERGENCE BETWEEN ELDERLY, CHILD AND OVERALL POVERTY

ABSTRACT

This study challenges the conventional wisdom that elderly, child and overall poverty are divergent. Comparing the official U.S. measure with the Luxembourg Income Study's (LIS) measure, I show that the official measure underestimates elderly poverty by a significant amount and child poverty by a lesser amount. The elderly were considerably more likely to be poor than children in the 1970s, children were more likely to be poor 1984-1997, but the elderly were more likely to be poor in 2000. Both the elderly and children are much more likely to be poor than the overall population. Analyses of 18 rich Western democracies show that overall and child poverty are very strongly positively correlated, while elderly poverty is moderately correlated with those two. Multivariate analyses show some commonalities and some differences in the sources of these three. Two measures of the welfare state significantly reduce overall, elderly and child poverty. While female labor force participation reduces all three, manufacturing employment, economic performance and demographic variables only influence one or two of the dependent variables.

RECONSIDERING THE DIVERGENCE BEWTEEN ELDERLY, CHILD AND OVERALL POVERTY

One of the most common assumptions about poverty is that child and elderly poverty are divergent. In the U.S., child poverty has increased over the past several decades, while elderly poverty has declined. As a result, children are much more likely to be poor than the elderly. Across rich Western democracies, children are often considered much more vulnerable to poverty than the elderly. This conventional wisdom is widely presumed to be true by social scientists, commentators and policy analysts. These facts are documented in general texts on poverty (e.g. Blank 1997; Page and Simmons 2000), are recounted in annual review essays (e.g. Bianchi 1999; Lichter 1997), and influence debates on poverty, inequality and generational inequity. Concerns have also been expressed on the divergence between child, elderly, and overall poverty in other rich Western democracies as well (e.g. Bradshaw 1997; Myles and Quadagno 1991; O'Rand and Henretta 1999; Palmer et al. 1988; Smeeding et al. 2001).

Most likely, readers take for granted that children, relative to the elderly, are more likely to be poor. On the surface, the divergence between child and elderly poverty appears to be beyond critique. Nevertheless, I contend that it is valuable to reconsider these seemingly established facts about elderly, child and overall poverty. This study scrutinizes the veracity of the claims that elderly, child and overall poverty are divergent. Specifically, this study reconsiders: a) the levels and trends in elderly and child poverty in the U.S.; b) the comparison of child poverty relative to elderly poverty in the U.S.; c) the relationship between elderly, child and overall poverty across rich Western democracies; and d) the sources of overall, elderly and child poverty in rich Western democracies. Ultimately, this study challenges the view that child, elderly and overall poverty are divergent.

THE GENERATIONAL INEQUITY DEBATE

Preston's (1984a; 1984b) presidential address to the Population Association of America prompted a great deal of scholarship on the generational inequities between children and the elderly. Following Preston, much research documents a divergence in child, elderly and overall poverty in the U.S. (e.g. Bergmann 1997; Parrott 2001; Pressman 1990; Wolfe 1991). Since child poverty has dramatically worsened relative to elderly and overall poverty, child poverty is considered a unique or distinct social problem. Poverty has become "juvenilized," resulting in the marginalization of poor children from the rest of society.[1] Scholars often juxtapose the intractability of child poverty with the triumph over elderly poverty. Blank (1997: 20) contends, "The elderly are one of the biggest success stories for public policy; expansion in government benefits to the elderly has resulted in very low poverty rates." Page and Simmons (2000: 21-22) write, "Poverty in the United States is now heavily concentrated among children, who have not been helped by government as much as the elderly have." Preston (1984a) even asserts that growing elderly populations undermine political support for children's programs, and that elderly programs subtract from the resources available to children. Because of the growth of the elderly population, this group has more political power. Since this group acts in its economic interest, the elderly will oppose programs for children and favor programs for the elderly. As a result, child poverty has gotten worse because of the politics of differential social policies.[2]

[1] Given the richness and extensiveness of the literature on child poverty, I only cite a few studies. For excellent reviews, see Lichter (1997) and Bianchi (1999).

[2] Preston (1984a: 445-446) contends, "Here it seems fairly obvious that the changing numbers of young and old have altered the environment for public policy decisions. In a modern democracy, public decisions are obviously influenced by the power of special interest groups, and that power is in turn a function of the size of the groups, the wealth of the groups, and the degree to which that size and wealth can be mobilized for concerted action. In all of these areas, interests of the elderly have gained relative to those of children."

But, Preston's pluralist account of generational political conflict is debatable. As Marmor and his colleagues (1997: 195) emphasize, "The substantive claims underlying this conflict are largely fictive." While this account animated concern over child poverty, political scholars have undermined many of the arguments about the politics of generational inequity. Though U.S. social programs do spend more on the elderly than other groups, Pampel (1994) demonstrates that no tradeoff exists between spending to alleviate elderly poverty and spending to alleviate child poverty. In fact, there is a positive correlation between the spending on public pensions and family allowances: "Nations with high levels of spending on one program also have high levels of spending on the other" (Pampel 1994: 174). In general, concerns over generational inequity have been exaggerated (see Pampel 1998; Marmor et al. 1997). Relative to other similar nations, the aging of the U.S. population does not truly present an economic or demographic crisis. Moreover, the elderly are not clearly politically antagonistic to children. The elderly do not cohesively vote together against children's programs. In fact, the cohesiveness of elderly attitudes and voting is relatively weak compared to the cohesiveness among classes, races, and religions (Manza and Brooks 1999). One cannot simply translate elderly economic interest into political action, nor can one presume that elderly group size automatically equates with political power.

Generally, the welfare state literature has been skeptical of Preston's model. The welfare state literature had already progressed far beyond pluralism at the time of Preston's address, but, Preston does not cite or mention any of this enormous sociological and political science literature. Subsequent research has failed to provide support as well. Pampel (1994: 187) explains, "The effects of population aging on public policy do not invariably favor the elderly over children. Demographic change that increases the size of the elderly population and reduces

the size of the child population leads, under certain institutional conditions, to higher spending for children as well as the aged." More realistically, generational inequity concerns have been camouflage for a neoliberal agenda of welfare state contraction (Marmor et al. 1997; Quadagno 1989). By contrast, class politics, power resources and political institutions remain far more important to explaining the politics of social spending and poverty (Brady 2003b).[3]

Nevertheless, despite the lack of evidence of a pluralist political account of generational inequity, there still may be reason for concern. If children are much more likely to be poor than the elderly, Preston's concerns still have merit. While his pluralist account of politics is limited, the fundamental differences in the economic standing of children and the elderly could be more important. If children are much more likely to be poor than the elderly, some form of generational inequity may exist. These disproportionately higher rates of child poverty certainly warrant scholarly attention.

In the rest of the paper, I reconsider the evidence that child, elderly, and overall poverty are actually divergent. First, I review several theoretical and methodological advances in poverty measurement. Second, I reevaluate the trends in elderly and child poverty in the U.S. from 1974 to 2000. Third, I examine variation in elderly, child and overall poverty across rich Western democracies. Finally, I conclude by discussing the implications of this research.

POVERTY MEASUREMENT

The vast majority of claims regarding child and elderly poverty divergence have been based upon the official U.S. measure. As has been well established, the official measure suffers

[3] Even if one takes for granted that the elderly increasingly contain far more affluent voters than families with children, Brooks and Brady (1999) show that affluent voters – including affluent elderly – vote against the welfare state and social policies in general, and not differentially for elderly programs relative to child programs. Ideological principles guide affluent voters more than group economic interest.

from several fundamental measurement weaknesses (Betson and Warlick 1998; Brady 2003a; Citro and Michael 1995; Foster 1998; Lichter 1997; O'Connor 2001; Ruggles 1990; Wilson 1991). These weaknesses problematize the claims of child and elderly poverty divergence.

First, the history of how the measure was constructed raises serious questions (see e.g. Katz 1989; O'Connor 2001). Mollie Orshansky constructed the measure in 1963 with data from 1955. Orshansky used the Department of Agriculture (DOA) "low-cost food budget" and multiplied the dollar amount by three, assuming food amount to one-third of a family's expenses. She developed the line as a research tool, never intended it as a policy instrument, and quickly repudiated it. Contrary to her intentions, it was adopted as the official measure, after substituting the DOA's "economy food plan" which was about 25% below the low-cost plan. The food budgets have never been revisited since the 1955 data, and the measure was solely adjusted for inflation – which effectively severed the food-income link. O'Connor (2001) explains that the threshold was intentionally set low in order to make the elimination of poverty an attainable political goal (also Katz 1989). Rather than reflecting a scientific absolute standard, the official threshold is politically motivated to classify a large number of people as not poor – especially among the elderly – that should reasonably be considered poor.

Second, the measure lacks validity because of its flawed operationalization of economic resources and needs. Many increasingly burdensome family expenses (e.g. health insurance, childcare, out of pocket medical expenses) are not incorporated. In addition, the measure ignores cash, near-income, and in-kind public assistance. Importantly, the measure is based on gross income before taxes, which of course, does not represent the financial reality of families at different periods of the family life cycle. Ultimately, the official measure's threshold is simply too low, and underestimates poverty (Brady 2003a; Citro and Michael 1995).

Third, the measure does not provide reliable comparisons over time and across population groups. Because the measure has remained unchanged after 30 years, significant social changes have been ignored. The increased need for childcare, the rising cost of health insurance and health care, and the inappropriate family size adjustments all weaken the measure. As a result, families now spend only about $1/6^{th}$ of their budgets on food. Because the aforementioned validity problems vary over time and across groups, reliability is compromised even further. In recent decades, payroll taxes on lower income households have risen substantially. While social security pensions count as income, food stamps, housing subsidies and childcare vouchers do not. Also, the official measure ignores the Earned Income Tax Credit (EITC), which provides crucial resources to low-income families with children. Since the EITC has grown into the largest assistance program - even greater than Temporary Assistance to Needy Families (TANF) – for such families, reliable and valid over time comparisons are simply not possible.

Therefore, conclusions based on the official measure warrant scrutiny. Scholars have shown that with alternative measures, the levels, composition, and trends in U.S. poverty are substantially different (Betson and Warlick 1998; Brady 2003a; Foster 1998; Iceland et al. 2001; Short and Garner 2002). One promising alternative is provided by the Luxembourg Income Study (LIS). In this study, I use the official LIS poverty estimates, which the LIS staff calculates and makes publicly available. The appendix contains definitions, descriptive statistics and the source for these measures. In addition to the estimates for U.S. poverty, I also analyze an average of 5.1 observations for 18 rich Western democracies from 1969 to 2000 (n=91). This dataset comprises all available relevant observations as of December 2003.

While the LIS measures are, of course, not perfect, they have two major advantages. First, the LIS measure includes a more comprehensive definition of household income. Based on cross-nationally and historically comparable individual-level data sets, the LIS staff provides almost standardized data – what they call "Lissified" data with similar variables across data sets, similar samples, and equalizing weights, which allow for population estimates. Based on this data, Smeeding et al. (2001: 165) explain, "The best current definition is disposable cash and noncash income (that is, money income minus direct income and payroll taxes, and including all cash and near-cash transfers, such as food stamps and cash housing allowances, and refundable tax credits, such as the Earned Income Tax Credit)." Debates over poverty divergence have exclusively focused on income poverty. After all, the official measure is based solely on income. While there may be some advantages to analyzing wealth or consumption instead of income, past arguments have rested solely on child and elderly income poverty.[4]

Second, the LIS measure operationalizes poverty relatively. LIS defines poverty as those households with less than 50% of the median income.[5] Most international poverty researchers prefer relative measures for industrialized democracies (e.g. Brady 2003a; Hagenaars 1991; Osberg and Xu 2000; Sen 1999; Smeeding et al. 2001). Relative measures better facilitate reliable cross-national and historical comparisons. Moreover, there is increasing skepticism that absolute measures could be valid and reliable in rich countries. Rainwater and Smeeding (2004:

[4] In the future, it may be valuable to explore divergence in wealth and consumption poverty. The LIS is currently in the process of developing a Luxembourg Wealth Study that might make age and wealth comparisons possible. Whether wealth and consumption poverty will produce different conclusions for these issues is an empirical question. As an alternative, Short and Garner (2002) show that if out of pocket medical expenses are subtracted from household income, the rate of elderly poverty is actually higher than the rate of child poverty.

[5] As another small advantage of this measure, the LIS measure has a more sophisticated equivalence scale than the official measure. The LIS staff standardizes household income with an equivalence scale of the number of people in the household squared. One disadvantage of the LIS and official measures is that they treat all people below the threshold as equal, regardless of the varying depth of poverty (Brady 2003a; Sen 1976). Unfortunately, however, the sample sizes of the elderly and child populations are not consistently large enough to estimate reliable measures of the average depth of poverty. Thus, for this study, I have not incorporated the depth of poverty.

9) write, “The more experience countries have with absolute poverty definitions, the more obvious becomes the absurdity of the rationale for them.” Smeeding and his colleagues (2001: 164, 166) explain, “For purposes of international comparison, poverty is almost always a relative concept,” and “All poverty measures are in some sense relative and must be chosen as appropriate for the context in which they are used.” Hagenaars (1991: 141) stresses that even nutritionists cannot agree on the calorie levels needed for various ages, sexes, occupations and conditions, and contends, “The resulting estimates are not as absolute and objective as they are claimed to be.”

Relatedly, a relative measure is more consistent with theoretical advances in the conceptualization of poverty: capability deprivation (Sen 1999), social exclusion (Atkinson 1998; Brady 2003a; Silver 1994) and social dislocation (Wilson 1991). Nobel Laureate Amartya Sen (1999) contends that poverty should be conceptualized as capability deprivation – the inability to function in society and a paucity of freedom to participate as equal citizens – and operationalized as relative income in rich countries. Arguably, conceptualizing poverty as capability deprivation, social exclusion and social dislocation advances our understanding of poverty (Rainwater and Smeeding 2004). Even though the official measure is perceived to be absolute, its threshold is quite arbitrary and does not reflect any justifiable absolute standard of resources or well-being. Moreover, nothing in the debates about child and elderly poverty divergence requires an absolute measure. In fact, Preston (1984: 436) actually refers to relative well-being – though he may be referring to the relative comparison between children and the elderly: “Trends have occurred in the relative well-being of our two groups;” and, “First, let’s examine some evidence on changes in the relative welfare of children and the elderly.”

TRENDS IN THE U.S., 1974-2000

Figure 1 displays the trends in elderly poverty in the U.S. with the official and LIS measures.[6] The bars contain the rate of elderly poverty with the two measures. In every year, the elderly poverty rate is much higher with the LIS measure than the official measure. Thus, the official measure underestimates elderly poverty. Moreover, the LIS measure suggests that the elderly, in fact, experience very high levels of poverty in the U.S.[7] In 1974, the official estimate of elderly poverty was 14.6 percent, while the LIS estimate was 27.5 percent. In 1991, the official estimate was 12.4, and the LIS estimate was 20.8. In 2000, the official estimate was 9.9 percent, while the LIS estimate was 24.7. Figure 1 also shows the ratio of the rate of elderly poverty with the LIS measure over the rate with the official measure. Importantly, there is substantial historical variation in how much the LIS estimates depart from the official estimates. In 1974, the ratio of the LIS to the official estimates was 1.88. The LIS measure effectively estimated about 88 percent more elderly poverty than the official measure in 1974. In 1991, the ratio dropped to 1.68, resulting in about 68 percent more poverty with the LIS measure. In 2000, this ratio rose dramatically to 2.5. As a result, by 2000, the rate of elderly poverty would have been about 2.5 times greater with the LIS instead of the official measure.

One of the reasons the official measure underestimates elderly poverty is that there are many elderly who have just enough income to be above the official threshold – which is generally perceived as too low – but not enough to exceed the LIS threshold. Smeeding (1990) has shown that while a minority of U.S. retirees have a high income, a very large percentage has an income just above the official poverty line (also Pampel 1998). More recently, Smeeding and

[6] The official estimates of poverty are from the Census bureau webpage: www.census.gov. Importantly, the LIS and the census bureau use the same data set to calculate estimates of U.S. poverty: the March Current Population Survey.
[7] As a comparison, the LIS estimates of the rate of poverty for the overall population are 15.9 in 1974, 15.8 in 1979, 17.8 in 1986, 17.5 in 1991, 17.8 in 1994, 16.9 in 1997, and 17 in 2000.

his colleagues (2001) show that with a threshold of 40% of the median income – which is closer to the official U.S. threshold – the rate of elderly poverty would be much lower. Thus, the rate of elderly poverty appears to be sensitive to the chosen threshold.

[FIGURE 1 ABOUT HERE]

Figure 2 shows the trends in child poverty in the U.S. with the official and LIS measures. Consistent with the elderly poverty patterns, the official measure probably underestimates child poverty. While the official measure reports high rates of child poverty, child poverty would be even greater with the LIS measure. In 1974, the official estimate of child poverty was 15.4 percent, while the LIS estimate was 19.3 percent. In 1991, the official estimate was 21.8, and the LIS estimate was 24.3. In 2000, the official estimate was 16.15 percent, while the LIS estimate was 21.9. Figure 2 also displays the ratio of the LIS rates over the official rates. Compared to elderly poverty, this ratio is smaller and there is less historical fluctuation. In 1974, the ratio of the LIS to the official estimates was 1.25. Thus, the LIS measure resulted in about 25 percent more child poverty than the official measure in 1974. In 1991, the ratio dropped 1.12, resulting in only about 12 percent more poverty with the LIS measure. In 2000, this ratio rose to 1.36. As a result, by 2000, the rate of child poverty would have been about 36 percent greater with the LIS instead of the official measure.

[FIGURE 2 ABOUT HERE]

As Figures 1 and 2 reveal, the LIS measure estimates higher poverty than the official measure for both the elderly and children. Both children and the elderly experience higher levels of poverty than the overall population and especially the working-age adult population. What is striking, however, is what these findings reveal about the trends in child poverty relative to elderly poverty. Figure 3 displays the trends in the ratio of child over elderly poverty with the

official measure and LIS measure. As has been well documented, the official measure charts a dramatic increase in the ratio of child to elderly poverty. This ratio rose from 1.05 in 1974 to a peak of 1.9 in 1997, and then declined to 1.63 in 2000. According to the official measure, children were only about 5 percent more likely to be poor than the elderly in 1974, but were 90 percent more likely to be poor in 1997, and 63 percent more likely in 2000. This is the startling divergence in child and elderly poverty that scholars have previously highlighted.

[FIGURE 3 ABOUT HERE]

The LIS measures of child and elderly poverty provide a starkly different account. The LIS measure shows that children were actually less likely to be poor than the elderly in the 1970s. The ratio of child to elderly poverty with the LIS measure was only .7 in 1974 and .75 in 1979. Even with the LIS measure, however, the ratios of child to elderly poverty changed in the 1980s. Children were more likely to be poor than the elderly from 1986 to 1997. Importantly, however, the ratios of child to elderly poverty are significantly smaller with the LIS measures. The ratio was only 1.07 in 1986, and rose to 1.17 in 1991 and peaked at 1.19 in 1994. Even at its highest level in 1994, children were only 19% more likely to be poor than the elderly. While the official measure found that children were much more likely to be poor in recent years, the LIS measure suggests that children were only 7 percent more likely to be poor in 1997 and actually about 11 percent less likely to be poor in 2000.

This comparison of the official and LIS measures challenges the popular claim that child and elderly poverty have diverged in the U.S. The elderly were actually more likely to be poor in the 1970s, and slightly more likely to be poor in 2000. Even in the 1980s, the LIS measures suggest that children were only slightly more likely to be poor. Ultimately, the LIS measures

provide evidence that the elderly and children are similar to, not divergent from, each other. Both groups are overrepresented among the poor.

VARIATION ACROSS RICH WESTERN DEMOCRACIES

Divergence between child, elderly and overall poverty has also been a concern in other rich Western democracies. Analyzing the patterns in a broader sample of countries can contribute to our understanding of these issues. First, such an analysis can further scrutinize claims about the divergence of elderly, child and overall poverty. Theoretical and policy debates on poverty should not rely exclusively on the U.S. case. Within the advanced capitalist democracies, the U.S. may be unique, or even anomalous, since it is the richest country in the world, has the least generous welfare state, and maintains the most poverty and inequality. Second, analyzing many advanced capitalist democracies supplies greater information on generational inequity debates. If the arguments about generational conflict and inequity are correct, one should observe consistent patterns across many countries. If the arguments are incorrect, a comparative analysis could yield a better understanding of these issues. Third, one of the ways in which elderly, child and overall poverty could diverge is in their sources. If the causes of poverty differ across these three, this would suggest that elderly, child and overall poverty are distinct phenomena. Moreover, the differing sources of poverty for these groups might be contradictory or even complementary.

To model the comparative historical variation in poverty, I utilize an unbalanced panel research design where the unit of analysis is a country-year (n=91). Using all available LIS estimates of my dependent variables, cases are unevenly distributed across 18 countries (N's) and 32 years (T's). I follow recent research on inequality (e.g. Alderson and Nielsen 2002) and

poverty (e.g. Brady 2003b) and use random effects (RE) models. Of course, there are reasonable arguments for alternative techniques (Hsiao 2003). Upon request, the author can provide more extensive discussion on the advantages of RE models with these data. But, in the interests of brevity, there are four reasons for presenting RE models. First, the RE model better facilitates estimating the effects of the independent variables on the dependent variables when both cross-national and historical variation are essential (Hsiao 2003; Beck 2001).[8] Second, statistical tests accept RE models.[9] Third, in small and unbalanced samples with more N's than T's, RE models perform better than alternatives (Hsiao 2003; Beck 2001).[10] Fourth, the alternative techniques are available upon request and produce consistent conclusions.

The first set of analyses, presented in Table 1, simply examine the empirical association between elderly, child and overall poverty. Elderly poverty is positively correlated with both overall and child poverty. Child poverty is extremely highly correlated with overall poverty (r=.96). Since these two are almost perfectly correlated, it is difficult to argue that child poverty is a unique or distinct social problem. Also, since child and elderly poverty are positively associated with each (r=.41), there is no apparent conflict between these two. While elderly poverty is more strongly correlated with overall poverty than child poverty, elderly and child

[8] Fixed effects (FE) models allow the independent variables to explain the historical variation within nations while removing the variation between nations. FE models perform OLS after including nation-specific constant terms and subtracting all variables from their nation-specific means. Between-effects (BE) models allow the independent variables to explain the between nation variation while removing the variation within nations. The RE model is the matrix weighted average of the within- (FE) and between-nations (BE) estimators (Hsiao 2003). RE models include a country-specific error term in addition to the general error term and, subtract a smaller portion of the nation-specific means. Importantly, cross-national differences in poverty are not constant over time, but relative stability exists in the cross-national ranking of nations – hence, FE models effectively mask this crucial variation.

[9] Recently, methodologists have shown that the Bayesian Information Criterion (BIC′) can be used to select between techniques (Beck 2001; Teachman et al. 2001). BIC′ very strongly prefers RE over FE models. Hausman's (1978) Chi-Square test is commonly used to select between these techniques. But, this test has small sample problems leading to the test sometimes being unidentified. Also, Hausman's test assumes no misspecification – an assumption violated by including any insignificant independent variables.

[10] Several alternatives (e.g. population average models, ordinary least squares with robust clustered errors or panel corrected standard errors) are very problematic in small and unbalanced samples, especially when N far exceeds T. Also, FE models consume a degree of freedom for every N. In this analysis, with 91 cases and 18 N's (average of 5.1 T's), FE models produce inefficient and potentially biased estimates.

poverty simply do not diverge. These associations parallel Pampel's (1994) findings of a positive correlation between elderly and child social spending. The empirical evidence suggests that child and elderly poverty move in concert with each other and with a country's overall level of poverty. This study contradicts the view that countries accomplish lower elderly poverty at the expense of higher child poverty. The overriding tendency is an empirical coherence between child, elderly and overall poverty.

[TABLE 1 ABOUT HERE]

In the next two columns, I present RE models predicting elderly and child poverty. First, I regress elderly or child poverty on overall poverty. Second, I regess elderly poverty on child poverty and child poverty on elderly poverty. While I am not making a causal argument (e.g. that overall poverty *causes* elderly poverty), this analysis provides further scrutiny of the associations between these variables after controlling for some of the stable cross-national differences. In other words, after partially controlling for cross-national differences, can overall or child poverty *predict* elderly poverty? Can overall or elderly poverty *predict* child poverty? In the RE models of elderly poverty, overall poverty and child poverty have very significant positive effects on elderly poverty. Even after controlling for random effects, overall and child poverty remain associated with elderly poverty. Relatedly, the RE model predicting child poverty shows that overall poverty has a very significant positive effect – and the fit of the model is very good (.896). Thus, variation in overall poverty very effectively accounts for variation in child poverty. Surprisingly, however, the RE model with elderly poverty as an independent variable shows that it does not have a significant effect on child poverty. One cannot as effectively predict child poverty from patterns in elderly poverty.

The second set of analyses, presented in Table 2, examine the causes of overall, elderly and child poverty. This analysis includes eleven independent variables that have been identified as relevant in previous research (e.g. Brady 2002, 2003b; Moller et al. 2003). The definitions, descriptive statistics and sources of these variables are presented in the appendix. Specifically, I include two measures of welfare state generosity: social security transfers and public health spending; two labor market factors: manufacturing employment and female labor force participation; three indicators of economic performance: economic growth, GDP per capita, and unemployment; the size of the elderly and child populations; and two age-specific demographic factors: the sex-ratio of the elderly and children in single mother families.[11]

[TABLE 2 ABOUT HERE]

The results in Table 2 provide much evidence that the causal sources of overall, elderly and child poverty are similar, and some evidence that they differ. The two welfare state measures collectively are significant and arguably the most important causes for all three dependent variables. Importantly, welfare state generosity explains much of the variation in overall, elderly and child poverty.[12] Welfare states effectively reduce all three aspects of poverty. For a standard deviation increase in social security transfers (holding all other variables constant at their means): overall poverty is expected to decline by about .44 standard deviations; elderly poverty is expected to decline by about .53 standard deviations; and, child poverty is expected to decline by about .34 standard deviations. For a standard deviation increase in public health spending: overall poverty is expected to decline by about .54 standard deviations; elderly

[11] In other work (Brady 2003b), I have shown that Left political institutions have a significant negative influence on poverty that combines with (and is not entirely channeled through) the welfare state. Unfortunately, however, the data on Left political institutions is not available after 1997, so I could not include those variables in this analysis.
[12] Brady (2002) explains thoroughly why public health spending has larger effects than social security transfers for overall poverty. Mainly this is due to the fact that public health spending requires greater taxation on upper income households and, in turn, this variable proxies the redistributiveness of the welfare state.

poverty is expected to decline by about .25 standard deviations; and, child poverty is expected to decline by about .42 standard deviations. The relative standardized effects of these two welfare state measures do vary across the three measures of poverty. However, for all three dimensions of poverty, their combined influence is greater than all the other independent variables. For all three, the welfare state is more influential than labor market, economic and demographic sources.

The two labor market variables significantly affect overall and child poverty, while female labor force participation also significantly influences elderly poverty. Interestingly, however, manufacturing employment does not affect elderly poverty. It should be noted that given the typical historical trends in manufacturing employment (declining) and female labor force participation (rising) in rich Western democracies, these two variables appear to have offsetting effects. For a standard deviation decline in manufacturing employment: overall poverty is expected to increase by about .31 standard deviations and child poverty is expected to increase by about .25 standard deviations. For a standard deviation increase in female labor force participation: overall poverty is expected to decline by about .29 standard deviations; elderly poverty is expected to decline by about .35 standard deviations; and, child poverty is expected to decline by about .27 standard deviations.

The economic performance and demographic variables are relatively less important in explaining overall, elderly and child poverty. Economic growth has a small significant negative effect on overall and child poverty, while GDP per capita and unemployment only significant affect elderly poverty. The size of the elderly population only affects overall poverty, while the size of the child population does not significantly influence any of the three. The elderly sex ratio does not affect overall or elderly poverty. Last, children in single mother families significantly affects child poverty, but is only near significant for overall poverty. Children in

single mother families has a smaller effect than the two welfare state measures and the two labor market factors, but a larger effect than the economic performance variables.

In general, overall, elderly and child poverty are all mainly explained by variations in the welfare state. This conclusion on the paramount influence of the welfare state complements previous research on overall (Brady 2002, 2003b), child (e.g. Rainwater and Smeeding 2004) and working-age adult poverty (Moller et al. 2003). This study, however, synthesizes the conclusions of past research and show that the power of the welfare state generalizes to the overall population and the vulnerable groups of children and the elderly.

CONCLUSION

This study challenges the claims regarding divergence in elderly, child and overall poverty. Comparing the official measure of poverty with the LIS measures in the U.S., the official measure underestimates elderly poverty by a significant amount and child poverty by a lesser amount. The elderly were considerably more likely to be poor than children in the 1970s, children were more likely to be poor 1984-1997, but the elderly were more likely to be poor in 2000. Both the elderly and children are more likely to be poor than the overall population. As a result, the levels and trends in child and elderly poverty are not divergent.

Analyses of 18 rich Western democracies show that overall and child poverty are very strongly correlated with each other, while elderly poverty has a less strong positive correlation with those two. The elderly and children are more likely to be poor than the overall population. Both the elderly and children are more vulnerable to experience economic insecurity and low household incomes than working-age adults. Nevertheless, elderly and child poverty do not really cross-nationally and historically diverge from overall poverty or from each other.

Countries that experience high levels of overall poverty also tend to experience high levels of child poverty and, to a somewhat lesser extent, elderly poverty. When overall poverty increases in a country, child and elderly poverty also increase.

The RE models show several commonalities and a few differences in the sources of these three. Two measures of the welfare state and female labor force participation reduce all three aspects of poverty. Manufacturing employment and economic growth reduce overall and child poverty, while unemployment and the GDP per capita only reduce elderly poverty. The size of the elderly population only increases overall poverty, while children in single mother families only increases child poverty. The elderly sex ratio and the size of the child population do not have significant effects. Across rich Western democracies, overall, elderly and child poverty share many of the same causal sources. Most importantly, the welfare state effectively reduces overall, elderly and child poverty.

This study contributes to the growing literature scrutinizing poverty measurement. The official U.S. measure is simply not valid and reliable. These measurement weaknesses seriously undermine comparisons over time, between countries and between demographic groups. At the very least, we should be skeptical of any claims based solely on the official U.S. measure. Most likely, the claims of child and elderly poverty divergence were a product of the deeply flawed official U.S. measure. The empirical patterns, substantive conclusions and policy implications are fundamentally different with the LIS measures. In addition, this study and the poverty measurement literature should encourage a reinspection of the long-established relationship between poverty and health. Social scientists have provided convincing evidence that poverty undermines health for children, adults and the elderly (e.g. McLeod and Shanahan 1993, 1996; Korenman and Miller 1997; Pampel 1998). However, this research has predominantly relied on

the official U.S. measure. Given the findings of this study and the relevance of health differences to research on aging, generational inequity and poverty, it would be valuable to examine the relationship with more valid and reliable measures of poverty.[13]

The elderly and children are both more likely to be poor than the overall population. Both are more vulnerable to poverty than working age adults (Palmer et al. 1988). At the same time, their comparative historical variation and causal sources share much with the patterns of poverty in the overall population. Ultimately, poverty analysts should emphasize the complementarity and coherence of elderly, child and overall poverty and not the purported divergence. Strategies to reduce poverty for the elderly or children should be viewed as consistent with, not contradictory, strategies to reduce poverty for the overall population.

[13] Please let me note that my study is not the first to challenge the conclusions of past research based on measurement. Others have critiqued the official measurement of elderly poverty, and contradict claims of child-elderly poverty divergence with other measures (Burtless and Smeeding 2001; Citro and Michael 1995; Jencks and Torrey 1988; Short and Garner 2002). As another example, when Mirowsky and Ross (1999) found that the elderly are increasingly less likely to experience economic hardship, Hardy and Hazelrig (1999) challenged their conclusions on measurement issues as well as other concerns.

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Table 1. Bivariate Correlations and Random Effects (RE) Models of Elderly and Child Poverty in 18 Rich Western Democracies, 1969-2000 (N=91).

	Elderly Poverty			*Child Poverty*		
	Bivariate Correlation	***RE Model***	***RE Model***	***Bivariate Correlation***	***RE Model***	***RE Model***
Overall Poverty	.571	1.188*** (6.56)		.947	1.484*** (18.52)	
Child Poverty	.406		.508*** (4.19)			
Elderly Poverty				.406		-.038 (-.75)
Constant		3.137* (1.72)	9.069*** (6.24)		-3.746*** (-4.64)	10.231*** (8.81)
BIC′		-31.404	-11.844		-201.630	-11.844
R^2 Within		.056	.079		.622	.079
R^2 Between		.712	.651		.932	.651
R^2 Overall		.326	.165		.896	.165

*** p<.01 ** p<.05 * p<.10

Note: For the random effects and fixed effects models, the unstandardized coefficient and t-score in parentheses are displayed.

Table 2. Random Effects Models of Overall, Elderly and Child Poverty in 18 Rich Western Democracies, 1969-2000 (N=91).

	Overall Poverty	***Elderly Poverty***	***Child Poverty***
Social Security Transfers	-.375***	-.941***	-.487***
	-.439	***-.530***	***-.343***
	(-4.87)	(-3.99)	(-3.81)
Public Health Spending	-.168***	-.163**	-.216***
	-.540	***-.252***	***-.418***
	(-5.59)	(-2.09)	(-4.29)
Manufacturing Employment	-.203**	-.289	-.267**
	-.308	***-.211***	***-.245***
	(-2.56)	(-1.21)	(-2.22)
Female Labor Force Participation	-.100***	-.253**	-.154**
	-.286	***-.350***	***-.267***
	(-2.65)	(-2.43)	(-2.46)
Economic Growth	-.117**	-.198	-.183**
	-.127	***-.103***	***-.120***
	(-2.49)	(-1.26)	(-2.25)
GDP Per Capita	-.00005	-.001***	.0001
	-.067	***-.365***	***.083***
	(-.90)	(-3.13)	(1.08)
Unemployment	-.018	-.848***	.218
	-.017	***-.384***	***.124***
	(-.19)	(-2.76)	(1.33)
Elderly Population	.659***	.170	
	.380	***.047***	
	(3.10)	(.33)	
Elderly Sex Ratio	-2.135	-5.353	
	-.091	***-.110***	
	(-1.06)	(-.92)	
Child Population	.175		-.206
	.140		***-.079***
	(1.30)		(-1.19)
Children in Single Mother Families	.124		.300**
	.161		***.187***
	(1.64)		(2.29)
Constant	30.070***	88.100***	48.178***
	(4.13)	(6.30)	(4.42)
BIC′	-86.648	-29.180	-85.810
R^2 Within	.312	.425	.242
R^2 Between	.810	.674	.816
R^2 Overall	.776	.536	.751

*** p<.01 ** p<.05 * p<.10

Note: For each independent variable, the unstandardized coefficient, ***standardized coefficient in bold and italics***, and t-score in parentheses are displayed.

Appendix. Definitions, Descriptive Statistics, and Sources for Variables (N=91).

Variable	*Definition*	*Mean (SD)*	*Sources*
Elderly Poverty	The percent of those 65 years old and older that resides in households with less than 50% of the median income	14.301 (7.708)	Luxembourg Income Study "Key Figures" (www.lisproject.org)
Child Poverty	The percent of those under 18 years old that resides in households with less than 50% of the median income	10.305 (6.157)	See above
Overall Poverty	The percent of the total population that resides in households with less than 50% of the median income	9.393 (3.704)	See above
Social Security Transfers	Social security transfers as a percent of GDP	15.359 (4.340)	OECD Historical Statistics, various years
Public Health Spending	Public health spending as a percent of total health spending	76.546 (11.911)	OECD Health Database, Eco-Sante, various years
Manufacturing Employment	Industrial Employees as a percent of the labor force	27.742 (5.630)	OECD Labor Force Statistics, various years
Female Labor Force Participation	Female labor force as a percent of the female population aged 15-64	58.873 (10.650)	OECD Health Database, Eco-Sante, various years
Economic Growth	Annual rate of change in real GDP in 1995 purchasing power parity dollars	2.890 (4.030)	See above
GDP Per Capita	Real GDP in 1995 purchasing power parity dollars per person	21193.880 (5061.864)	See above
Unemployment	Standardized unemployment rate	7.083 (3.494)	OECD Main Economic Indicators, various years
Elderly Population	The percent of the population 65 years old and older	13.924 (2.134)	OECD Health Database, Eco-Sante, various years
Elderly Sex Ratio	The ratio of women over 64 years old to men over 64 years old	19.768 (2.969)	See above; OECD Labor Force Statistics, various years
Child Population	The percent of the population under 15 years old	1.496 (.158)	See above
Children in Single Mother Families	Children in single mother families as a percent of all children	10.777 (4.813)	Luxembourg Income Study "Key Figures" (www.lisproject.org)

Figure 1. A Comparison of Official and LIS Elderly Poverty in the U.S., 1974-2000

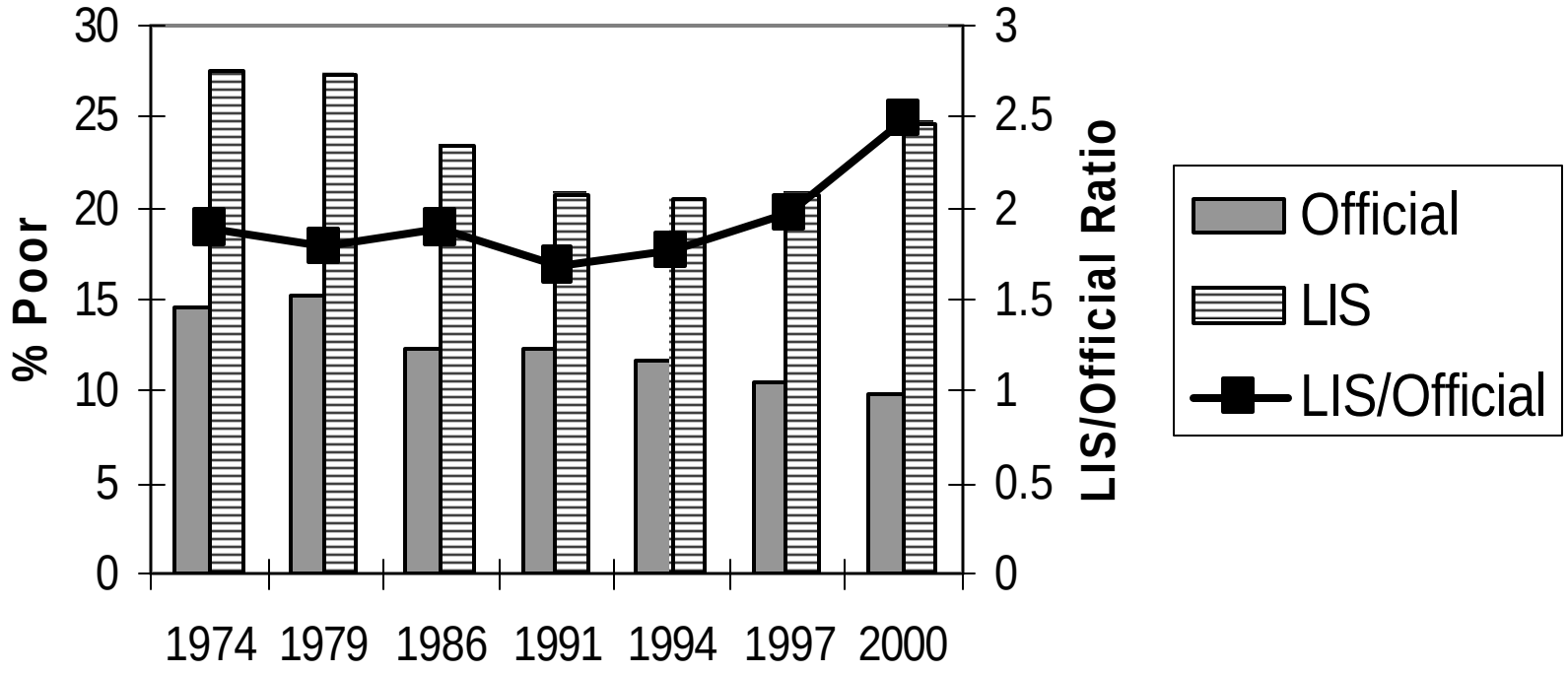

Figure 2. A Comparison of Official and LIS Child Poverty in the U.S., 1974-2000

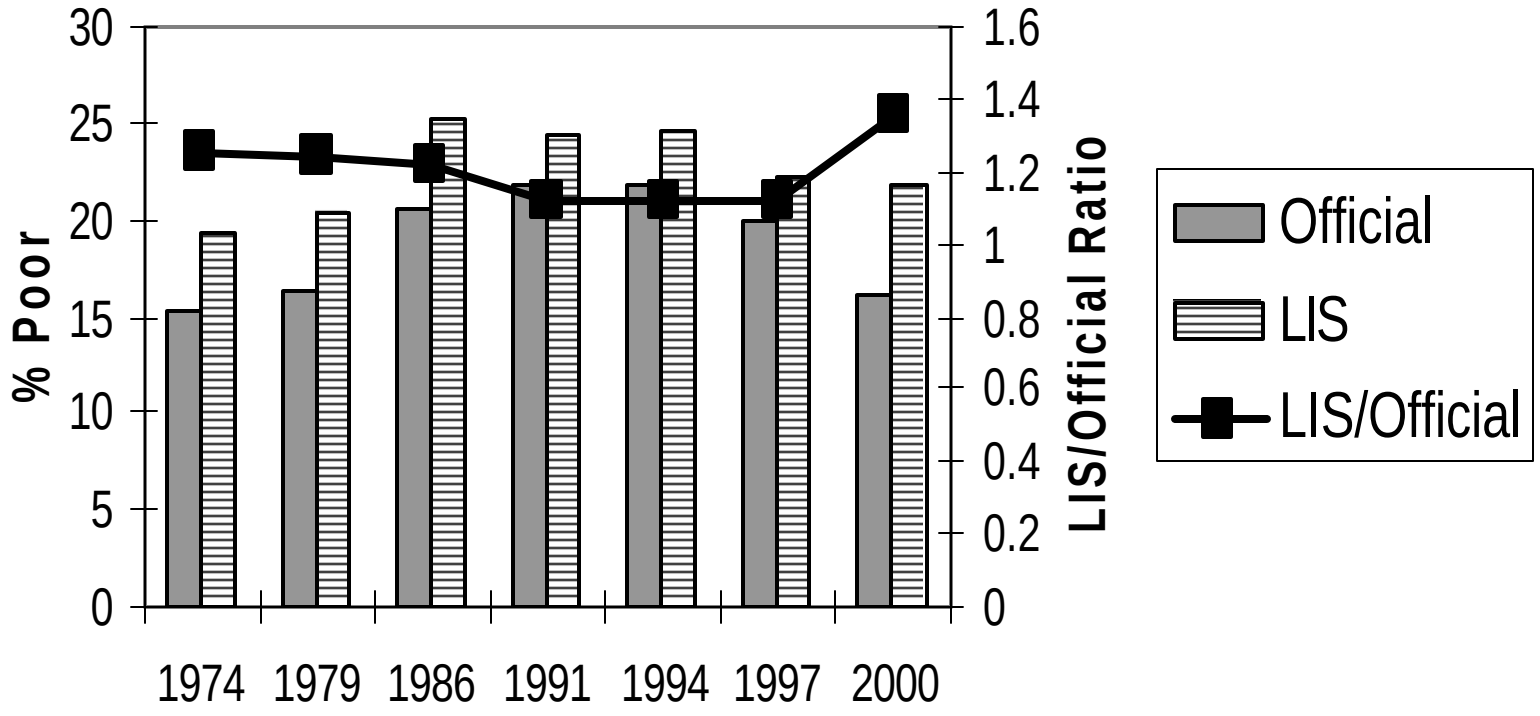

Figure 3. A Comparison of Ratios of Child to Elderly Poverty With Official and LIS Measures in the U.S., 1974-2000