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Asset Poverty Among Children: A Cross-national Study of Poverty Risk

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Abstract

We introduce the concept of child asset poverty as the condition of a child living in a family that owns a level of financial assets that falls below a systematic threshold. Using harmonized and comparable household wealth survey data from the United States and five other countries this paper finds that child asset poverty is consistently higher than income poverty and that children are at greater risk of asset poverty than other age groups. After adjusting for labor market and demographic factors, U.S. children are at higher risk of asset poverty than children in other countries (ranging from 1.07 times higher than Australia to 1.69 higher than Norway). Counterfactual decomposition methods revealed that reducing the prevalence of single-parent female families in the U.S. would only hypothetically reduce the poverty rate by 2.8 percentage points, suggesting that the high U.S. child asset poverty rates in comparison to other countries are driven by factors unrelated to family structure.

Keywords: poverty; assets; asset poverty; cross-national; family structure

1 Introduction

Children who grow up in poverty experience increased risks for lifelong hardship. These hardships include low birth weight, increased infant mortality rate, emotional and behavioral problems, delayed cognitive development, lower academic achievement, and high school dropout, to name a few (Aber, Bennett, Conley, & Li, 1997; Brooks-Gunn & Duncan, 1997). The effects of poverty are intergenerational, such that children in poverty are substantially more likely to be poor as adults (Duncan, Ziol-Guest, & Kalil, 2010; Solon, 1992). The consequences of poverty justify why more research is needed on the nature and extent of childhood poverty and interventions to reduce it. Within the existing literature, the vast majority of child poverty research uses household income as an indicator of well-being. Yet, families rely on a range of economic resources beyond income to meet basic needs and support children's development. Specifically, assets—financial and nonfinancial—shape family functioning and children's development in ways that are unique and independent from income. We begin by defining assets to include financial capital such as savings and stocks, along with non-financial assets such as real estate holdings, vehicles, etc. We then focus on financial assets as especially important to household finances because they can be easily liquidated to smooth consumption.

Recently, scholars have broadened the study of poverty to include asset-based measures. This shift in perspective showed that approximately 40% of U.S. households were asset-poor—quadruple the level of income poverty at the time (Haveman & Wolff, 2004). In this paper, we produce the first estimates of the prevalence of U.S. children living in asset poverty, then compare them to child asset poverty levels in five other wealthy countries. We then assess the importance of family structure, specifically, single-parent, female-headed (SPF) families in explaining cross-national variation in child asset poverty rates. We compare the United States to

other wealthy countries to understand the extent to which the relatively high rate of SPF families in the United States accounts for its high child asset poverty rate. Before stating the research questions, we briefly review why assets matter for children and how a child's family structure – specifically, living in a SPF - shapes poverty risk.

1.1 Assets and child development

Income and assets are the primary economic resources that families manage. The importance of income for child development has been well established and recently reviewed (Chaudry & Wimer, 2016). We extend this long tradition by examining the unique contributions of assets to child well-being and development. Importantly, the distinction between assets and income emerges from their different qualities. Assets are considered *stocks* in contrast to income *flows*. Because of their stock nature, assets reflect both accumulation over time and the potential for future consumption. In direct ways, holding assets has been associated with a number of positive child outcomes such as school completion (Kane, 1998), and math and readings scores (Elliott III & Sherraden, 2013; Green & White, 1997). Another group of studies has found that asset holding positively impacts on psycho-social well-being. In a recent randomized study, savings accumulated in child development accounts accounted for greater socio-emotional development in early childhood (Huang, Sherraden, Kim, & Clancy, 2014). Williams Shanks (2007) reported that asset holding was independently associated with fewer problem behaviors and better children's math performance on applied problems. Public health researchers have now acknowledged the importance of measuring assets because assets partially explain inequalities in health outcomes in ways that income does not (Pollack et al., 2013).

Assets also affect children indirectly through family finances. Assets can smooth family consumption, i.e., they can be drawn down when income is disrupted or when there is a

considerable expense (planned or unplanned). And this likely translates into less family stress. When families have assets during such times, they are likely to encounter less financial strain and stress (Rothwell & Han, 2010). With less financial strain in the household, parent-child interactions are expected to be more nurturing and healthy. Other things equal, asset holdings may reduce the parents' stress, leading to decreased conflict with their spouse or partner and better parenting to their children (Conger, Conger, & Martin, 2010; McLanahan & Percheski, 2008; Williams Shanks & Robinson, 2013). Williams Shanks and Robinson (2013) suggest that this improvement in parental well-being and interactions with children decrease children's stress levels. Families that have assets can plan for the future and maintain an outlook on future life events that would not be possible otherwise.

Scholars suggest that assets are a vehicle for families to transmit aspirations and resources to their children (Zhan & Sherraden, 2003, 2011). Parents' savings has been associated with development of a college-bound identity (Oyserman, 2013). Overall, parents' asset holdings predict better academic achievement, higher educational expectations, a lower likelihood of repeating a grade, higher college enrollment, and higher college graduation (Conley, 2001; Elliott III, Kim, Jung, & Zhan, 2010; Grinstein-Weiss, Yeo, Irish, & Zhan, 2009; Kim, Sherraden, & Clancy, 2013). Grinstein and colleagues (2009) argue that asset holdings allow families to be future-oriented, making it easier to plan for things such as college because they expect present resources to be there in the future. Mayer (1997) found that income from investments and inheritance explained more of the variance in children's educational test scores and achievement than did total family income. Children, then, may be in a better position to take risks and consider multiple educational or career pathways, knowing their parents have the resources to fund those options (Hällsten, 2010; Pfeffer & Schoeni, 2016).

1.2 Family structure and asset poverty

Children grow and develop in family structures that shape their access to economic resources, and thus their future life outcomes. Family structure refers to many dimensions of family life. Here, we delimit our review to the constructs that most fundamentally determine wealth levels: presence of children, gender of household heads, and couple status of household head.

Estimates suggest families with children hold about half the amount of wealth as families without children (Pfeffer & Schoeni, 2016). Descriptive studies have observed rising inequality among U.S. families with children. For example, the ratio of 95th percentile to 50th percentile wealth value has more than doubled since 1990 (Pfeffer & Schoeni, 2016). Families with children have lower wealth for many reasons. The introduction of a child into a household brings many new things, including economic consequences. Children must be fed, clothed, housed, and educated and these are costly, but they also require care which generates tradeoffs with work (Misra, Moller, Strader, & Wemlinger, 2012). It is difficult to accumulate assets without a regular flow of income. Furthermore, the addition of a child increases consumption without increasing other economic resources. As a result, families typically save less after having a child compared to savings before the child. And, parents with children are often relatively young in the life course and have not benefited from accumulation of many assets.

Female-headed families are at an increased risk of all forms of poverty, including asset poverty. In one of the earliest studies of asset poverty, Haveman and Wolff (2004) showed that 71% of female-headed families under age 65 with children were asset-poor, compared to 42% of male-headed families in the same age bracket. This supports other findings that female-headed households have significantly less wealth than male-headed households (Chang, 2010; Conley &

Ryvicker, 2004; Grinstein-Weiss, Yeo, Zhan, & Charles, 2008). Such inequalities are attributable to women earning less and accumulating fewer assets than men on average, as a result of inequalities in the labor market and wage structures (Gornick & Boeri, 2016). This offers women fewer opportunities to save and accumulate wealth (Yamokoski & Keister, 2006). Additionally, mounting cross-national evidence suggests that women exhibit significantly lower levels of financial literacy (Bucher-Koenen, Lusardi, Alessie, & Van Rooij, 2017).

Couple status also confers unequal access to wealth for parents. In the U.S. context, "coupled" includes married couples, as well as individuals residing with a partner. The vast majority of research on family structure and wealth examines the impact of marriage, probably explained by its historical and cultural importance in the U.S. (Moffitt, 2015). In the U.S., married couples have more assets than all other family types (Lupton & Smith, 1999) and higher wealth individuals are more likely to marry than lower wealth individuals after controlling for income (Schneider, 2011). Based on the Panel Study of Income Dynamics (PSID), the median wealth of married couple households in the U.S. was more than two times that of households headed by single individuals (Schmidt & Sevak, 2006). The pattern holds cross-nationally: single-parent households in most countries had less than half the wealth of coupled parents (Sierminska, 2018). Relative to non-married parents, married parents tend to have more education, come from higher socioeconomic backgrounds, have better health, and wait longer to have children (Gibson-Davis, 2016). Furthermore, the qualities associated with selection into committed relationships and marriage are probably similar to the qualities that promote wealth creation (e.g., future orientation, insurance against future uncertainty).[1] Non-coupled and non-

[1] As others have done (Eads & Tach, 2016; Gibson-Davis & Percheski, 2018), we acknowledge selection into marriage as a potential confounder for explaining differences in asset levels. Because our coverage of the relationship between assets and family structure is not an attempt at causality we focus on associations.

married families, i.e., single-parent households, face the challenge of one adult providing complete economic and emotional support for their children. Therefore, single parents have all the responsibility of a two-parent family with half the help. One study reported that children raised in single-parent families, compared to two-parent families, had lower levels of wealth in adulthood (Keister, 2004).

In many industrialized countries, changing family structures interact to shape poverty risk. The pattern of increasing numbers of women choosing not to marry, entering the workforce, and having children outside of marriage has been labeled the Second Demographic Transition and has been observed across high-income countries (Lesthaeghe, 2014). Importantly, the vast majority of children in single-parent households are raised by women. And the challenges to wealth accumulation for SPF are stark: the median wealth of married couples with children was $96,000 compared to $6,000 for single-mother households in the U.S. (Yamokoski & Keister, 2006). Furthermore, the mean wealth of single-female-headed households was approximately $125,294 less than that of married couple households, even after accounting for education level, age of children, and receipt of inheritance (Schmidt & Sevak, 2006). SPF, given their lower earnings and often limited access to child support, see a greater percentage of their earnings going to their children than do single-male and two-parent households. These households deal with gender-related penalties in roles and relationships, and are more vulnerable to economic shocks (Conley & Ryvicker, 2004; Hao, 1996; McLanahan & Percheski, 2008; Schmidt & Sevak, 2006; Yamokoski & Keister, 2006). Further, when the marriage of a couple with children dissolves, single-parent men are better positioned to maintain higher wages, employment rates, and overall standards of living than single-parent women (Gibson-Davis & Percheski, 2018; Hao, 1996).

1.3 Purpose and research questions

It is well established that poverty is detrimental to child development and evidence is mounting on the importance of assets for child development, which are largely determined by family structure (i.e., SPFs experience the greatest poverty risk). Yet, very little is known about how many children live in families with low assets. To our knowledge, only one formal study of child asset poverty has appeared in the literature. In their study of Canadian families, Blumenthal and Rothwell (2018) found that asset poverty was two to three times more prevalent than relative income poverty, depending on the definition of assets. Compared to income poverty, they also found that age and education mattered more for asset poverty; gender was less consequential. Outside of Canada, the extent of asset poverty among children remains unknown. The purpose of this study is to describe for the first time the prevalence of asset poverty among children in the United States, interpret U.S. child asset poverty in international context, and explore how much U.S. child asset poverty may be explained by its relatively high proportion of SPF families. As the U.S. is such an outlier in its distribution of income and wealth, we compare the U.S. to five other countries in an effort to avoid selection bias (Brady, Finnigan, & Hübgen, 2017). All together, the descriptive findings in a comparative context provide a new foundation for understanding the economic circumstances of children.

The study proceeds in three parts with separate research questions. In the first descriptive section, we ask: **Across six countries, what is the prevalence of asset poverty among children?** Employing an established measure of asset poverty based on three months of income (Haveman & Wolff, 2004), we estimate the number of children in asset poverty across countries. Child asset poverty rates are then compared to income poverty rates to illuminate a novel form of economic disadvantage. Based on previous research that used similar indicators of income and

asset poverty (Blumenthal & Rothwell, 2018; Brandolini, Magri, & Smeeding, 2010), we expect the prevalence of child asset poverty to be higher than that of child income poverty in all countries. Additionally, we expect that asset poverty rates of children will be greater than overall population poverty rates, because poor households tend to have more children and younger household heads are less likely to have accumulated assets.[2]

In the second section, we pool the data across the six countries and address the question: **Are U.S. children at greater asset poverty risk than children in other countries?** Based on the limited previous cross-national research on asset poverty, we expect one of two outcomes. On one hand we might expect American children to have a uniquely high risk of asset poverty because economic inequality is notably higher in the U.S. and it's social welfare institutions are among the weakest among comparable countries (Cowell, Karagiannaki, & McKnight, 2017). Moreover, the U.S. had the second highest asset poverty rates for the entire population behind Canada (Brandolini et al., 2010). On the other hand, scholars have posited that families in generous welfare states (e.g., Scandinavian countries Denmark, Norway, Sweden) may have disincentives to save and accumulate wealth because they can rely on the state for consumption smoothing in times of need (Cowell et al., 2017; Sierminska, 2018). Thus, families in more liberal and less-generous welfare states (e.g., the U.S., U.K., and Australia) would be expected to save and accumulate wealth because they have less access to state benefits and those benefits are often meager.

For the final section, we seek to better understand the processes that explain variation in asset poverty. Building on previous recommendations to consider family structure differences between countries (Azpitarte, 2012), we ask: **How does family structure shape asset poverty**

[2] This statement is associational not causal. We neither suggest the large family sizes and younger heads of households cause poverty or vice-versa.

risk across countries? Between 1960 and 2014, the proportion of all U.S. children living in single-parent households increased from 9% to 26%; the latest data suggest that 23% live in a SPF family(Parker, Horowitz, & Rohal, 2015; US Census Bureau, 2016). To what extent does the proportion of children in SPF families explain differences in poverty across countries? We compare each of the countries in the study to the U.S. with counterfactual decompositions of differences in child asset poverty rates. Given the challenges for SPF discussed above, we expect the poverty risk for children in SPF families to be high in all countries. Further, we anticipate that U.S. children living in SPFs to be the highest among other countries in our sample. This proposition is based on prior research documenting that the United States presents gendered labor-market penalties for single mothers (Christopher, 2005; Christopher, England, Smeeding, & Phillips, 2002; Pettit & Hook, 2009). And, SPF families in the U.S. are the most likely to access means-tested social assistance such as Temporary Aid for Needy Families (TANF) and Supplemental Nutrition Assistance Program (SNAP). Asset limits in these programs likely serve as a disincentive to accumulate assets (Hubbard, Skinner, & Zeldes, 1995).

2 Methods

We used nationally-representative and comparable data on wealth from the Luxembourg Wealth Study (LWS). The LWS contains harmonized household surveys from several countries in Europe, North America, and Australia. Data on assets, income, and debts are included at the individual- and household-levels, as well as a number of family structure and other demographic categories typically measured in national surveys. LWS staff have harmonized the measures of wealth and other indicators across countries to enable cross-national research. The current study used data from the six countries having LWS data available at the time of the study: Australia (2010), Finland (2013), Italy (2014), Norway (2013), United Kingdom (UK; 2011), and the

United States (US; 2013). [3] Data on individuals and households were merged and the head of the household was retained. The combined unweighted sample size was more than a quarter-million individuals (N=251,392) (LIS Cross-National Data Center, 2016).

2.1 Measurement

2.1.1 Relative Income Poverty

Income poverty was derived from the household's annual disposable household income (DHI). In the LWS, DHI includes total income (including labor, transfer, and capital income) minus income taxes and social security contributions. The relative measure of income poverty was constructed in several steps.[4] DHI was bottom-coded at zero and top-coded at 10 times the median income. To account for economies of scale in resource allocation, top- and bottom-coded DHI was then equivalized by dividing by the square-root of the number of household members. Following convention in cross-national poverty research, the relative income poverty threshold was then set at 50% of the household weighted median of the top- and bottom-coded equivalized DHI distribution. Poverty was measured at the household level, and a household was coded as income poor if equivalized DHI was below the relative threshold (0 = above threshold and 1 = below threshold).

2.1.2 Asset Poverty

We considered a household to be asset poor if it was not able to maintain a certain level of well-being for a specified amount of time. Financial assets were used as the economic

[3] Australia (Survey of Income and Housing and Household Expenditure Survey); Finland (Household Wealth Survey/ Household Finance and Consumption Survey); Italy (Survey of Household Income and Wealth); Norway (Household Income and Wealth Statistics); UK (Wealth and Assets Survey); and US (Survey of Consumer Finances). Data from Canada were excluded because of the inability to identify families with children in a consistent manner across countries.

[4] The relative poverty measure is based on the income distribution. This compares with an absolute poverty measure as used by the US Census Bureau to calculate the Official Poverty Measure. See Smeeding (2016) for a review of poverty measures.

resource and included deposit accounts, cash, financial investments (i.e., bonds and stocks), and other non-pension financial assets (LIS Cross-National Data Center, 2016). Financial assets were equivalized using the same scale that was applied to income (square-root of household size). Next, we anchored the asset poverty threshold to the income poverty threshold described above, but adjusted the time period from 12 to three months. This approach identifies the asset poor as families who lack sufficient financial assets to maintain current living standard for three months should they lose all income.[5] In concrete terms, the equivalized financial asset poverty threshold for the United States was $4,953 for three months. A household was considered asset poor if its reported financial assets were less than the established threshold (0 = above threshold and 1 = below threshold).

2.1.3 Family Structure

We focus on households headed by SPF. SPF families were coded based on whether or not the head of household was currently living with a partner. For single heads of household (with no partner), we coded the gender of the household head, resulting in a three-category family structure variable. In the regression analysis, we dummy coded the family structure for SPF (0 = other family type; 1 = SPF).

2.1.4 Covariates

Education was measured using the LWS three-category variable on highest completed education. Although some differences exist from country to country, in general, the lowest category represented less than a high school diploma, the middle represented a high school diploma to some college experience, and the highest category included an associate degree to

[5] It would be possible to explore different time periods (e.g., ranging from 1 month to many months). To adjust for three months' time, the annual poverty threshold was multiplied by 0.25. The OECD wealth database includes similar measures for three months and six months.

graduate or professional degree attainment. Four age categories were created for the household head: 0 = 18–30; 1 = 31–40; 2 = 41–50; 3 = 51–65. A labor market attachment variable was generated based on the earnings distribution of each country (Gornick & Jäntti, 2012). The head of household was coded as having low attachment if their market earnings from both wages and self-employment was in the lowest 20 percent of the income distribution, including those with zero earnings. Labor market attachment was conducted separately for male-headed and female-headed distributions within their respective countries.[6] A binary variable was created to represent level of participation (0 = labor market attachment; 1 = low labor market attachment).

2.2 Analysis

After individual and household data were merged and household heads retained, the sample was restricted to households headed by 18-to-65 year-olds. To answer the first research question, we calculated three poverty rates: child asset poverty, overall asset poverty of the entire population, and child income poverty. The unit of analysis was the individual, with children the primary focus. Children were defined as individuals under 18 years of age. To calculate child poverty rates we estimated the probability that an individual child lives in a household that is poor. Following LIS convention, we estimated child poverty rates by generating a child weight equal to the household weight multiplied by the number of children in the household.[7] As the surveys are nationally representative, this means we estimated child poverty for well over 100 million children across the six countries.

[6] The person weight was utilized to construct the labor participation variable (PPOPWGT).

[7] Overall population poverty rates were estimated with an individual weight equal to the household weight multiplied by the number of individuals in the household. The United Kingdom data does not contain a measure of how many children 17 or under living in the household. They do ask how many of the head of household's own children are living in the home (NCHILDREN). To obtain the child weight for the United Kingdom, first, families with the youngest child 18 or older were coded 0 for number of children in the home, given the study's focus on households with children 17 or under. Then the household weight was multiplied by the number of children living in the household. Since this weight only includes children of the head of household, it most likely underestimates the child poverty rate by not including children of the head of household's partner/spouse.

To understand the asset poverty risk of U.S. children compared to children in other countries (research question 2) we estimated a separate linear probability regression model predicting child asset poverty as a function of the covariates (i.e., age, education, and labor force participation) for each country.[8] In the seventh model, we pooled the data for all six countries and added a dummy variable for country. The country coefficient in the pooled model was interpreted as the unique poverty risk for each country compared to the United States, after controlling for the other population characteristics. Standard errors in the pooled model were clustered at the country level.[9]

The poverty risk framework (Brady et al., 2017) informed our approach to studying family structure and poverty risk across countries. In this framework, poverty risk is comprised of two components: *prevalence* and *penalty*. The prevalence of any risk factor such as SPF family is simply the demographic composition effect. Prevalences were calculated as the weighted percentage of children in a country living in that family structure. Penalties, on the other hand, reflect how a given risk factor shapes the likelihood of being poor. As such, penalties were the average marginal effects derived from the SPF family coefficient in the linear probability regression model for each country (models 1-6). In other words, the penalty is the regression-adjusted predicted probability that a child living with the risk factor—single-parent female family in our case—will experience poverty. The use of prevalences and penalties is an extension of classic decomposition methods (Kitagawa, 1955; Oaxaca, 1973) that partition

[8] Linear probability models were chosen because, in relation to non-linear probability models such as logit or probit, linear models are more comparable across samples: see (Allison, 1999; Brady, Finnigan, & Hübgen, 2017; Breen, Karlson, & Holm, 2018). All models employed Stata's vce (unconditional) option for robust standard errors with the margins command.

[9] The pooling of data and analysis followed LIS recommended methods of performing multiple country analysis. The normalized household weight was utilized in the cross-country regressions and obtainment of rates and demographics for the pooled data. The normalized household weight was multiplied by the number of children in the household. Similar steps were taken for the UK data to create the normalized child weight.

differences between groups into characteristics effects (prevalences) and coefficients effects (penalties). Emerging from the risk analysis, we ask two counterfactual questions to provide further insight into the mechanisms driving asset poverty differences across countries. In this counterfactual analysis, the United States was compared to the five reference countries systematically one at a time. We first consider: what would the U.S. child poverty rate be if it had the prevalence of SPF families in another wealthy country? To obtain the prevalence counterfactuals, we replaced the prevalence rate of the U.S. SPF families with the prevalence of the other five countries one at a time and recalculated the child asset poverty rate for the U.S. The difference between observed and simulated poverty rates was attributed to the prevalence effect. We also ask, holding other factors constant, what would the U.S. child asset poverty rate be if it had the penalty of SPF families in another wealthy country? Similarly, the coefficient for U.S. SPFs was systematically replaced with each of the other five countries' coefficients to estimate what U.S. child asset poverty rates would be if they had the penalty of those other countries. Counterfactual poverty rates were then compared to the observed U.S. child asset poverty rate with the difference attributed to the penalty effect.

3 Results

3.1 Rates of asset poverty

A description of the sample and living situations of children, across the six countries is presented in Appendix A. Prevalence rates of child asset poverty, individual asset poverty, and child income poverty are presented in Figure 1. The most striking finding is that asset poverty rates are very high in all countries and there is wide variation across countries. Australia and the United States had the highest rates (62.9%), followed by the United Kingdom (52.2%), Italy (48.9%), and Finland (47.6%). In Norway, the country with the lowest rate at 34.4%, over a third

of all children were asset-poor (proportionally 45% lower than in the U.S. and Australia). And, across countries, there is seemingly no relationship between child asset poverty and median household income (See Appendix B).

Two patterns emerge from Figure 1 that hold across all countries: child asset poverty is higher than child income poverty, and child asset poverty is higher than overall asset poverty. The rankings of highest to lowest poverty differ depending on the economic indicator used, i.e., assets or income, and suggest the processes driving income poverty are different from those driving asset poverty. Moreover, across countries, the relationship between child asset poverty and child income poverty was weaker than many would expect and statistically non-significant—Pearson's correlation r = .56; p = .18. Averaged across the entire sample of children from six countries, children experience asset poverty at a rate that is 3.2 times greater than income poverty. In Finland and Norway where income poverty is low due to a robust system of income transfers and child benefits, the asset-poverty-to-income-poverty ratio is high (e.g., 11 times higher child asset poverty than child income poverty in Finland). In contrast, the lowest ratio of asset poverty to income poverty was 2.1 times in Italy, which still represents double the number of children affected.

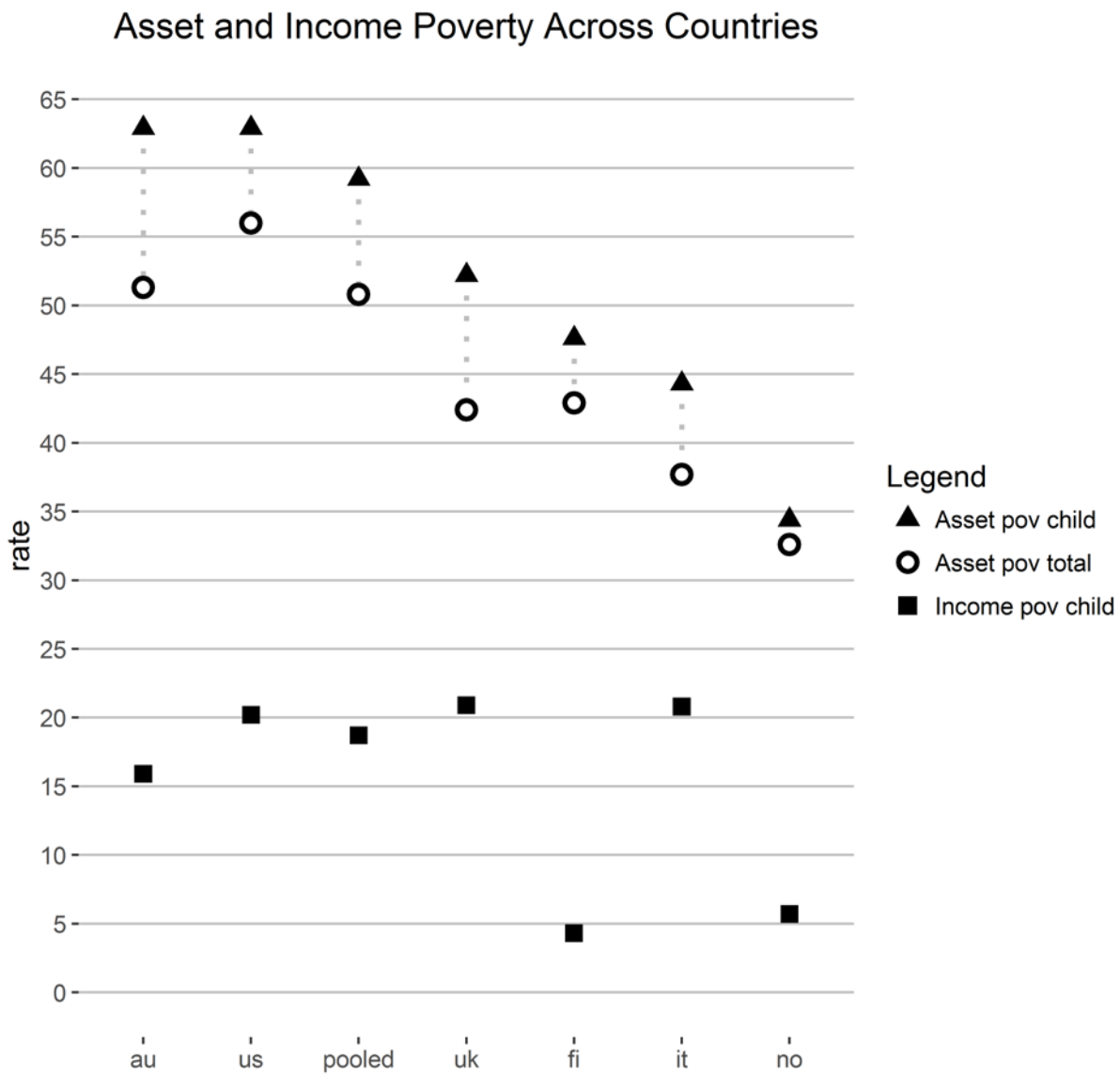

Figure 1. Poverty rates across six countries. "Asset pov child" is the percent of children in each country falling below the asset poverty threshold. "Asset pov total" is the percent of total population falling below the poverty threshold. "Income pov" is the percent of children falling below the income poverty threshold. AU = Australia; US = United States; Pooled = Pooled sample all countries; UK = United Kingdom; FI = Finland; IT = Italy; NO = Norway.

In all six countries, proportionately more children are asset-poor than the population as a whole. Across the countries, the pooled child asset poverty rate (59.6%) was higher than the total asset poverty rate (51.3%) for the entire population. The difference in asset poverty rates between children and the overall population that was observed in all countries ranges considerably from a difference of 1.8 percentage points in Norway to 11.6 percentage points in

Australia. Large differences between child and overall asset poverty rates in Australia, the United States, and the U.K. suggest that asset poverty functions differently for families with children compared to the overall population.

3.2 U.S. Asset Poverty Risk in a Cross-national Context

Children in the United States and Australia had the highest poverty rates among the countries sampled. But, does this hold after controlling for age, education, family structure and labor market participation? To address this we ran separate regressions predicting asset poverty for each country, then a pooled model to assess the extent to which American children were uniquely at risk of asset poverty. In each country, children in households with younger household heads, less-educated household heads, and parents with low labor force participation were more likely to be asset-poor. However, comparing coefficients across countries reveals wide variation and suggests that asset poverty is determined differently in each setting (see Table 2). For example, children in young families in Italy are not at any distinguishably higher poverty risk than families in their 40s; however, in the U.K., a child living with a household head age 18–30 experienced significantly higher poverty risk ($b = 0.23$, $SE = 0.02$, $p < 0.001$). The pooled model showed that children in the United States had the highest risk of experiencing asset poverty. Coefficients ranged from Australia ($b = -0.04$, $SE = 0.01$, $p < 0.001$) at the lowest difference, and Norway ($b = -0.26$, $SE = 0.01$, $p < 0.001$) at the highest.

Table 2.

Regression results predicting child asset poverty in six wealthy countries.

	Australia	Finland	Italy	Norway	U.K.	U.S.	Pooled
Single-female parent	0.15** [0.11, 0.19]	0.21** [0.14, 0.28]	0.27** [0.20, 0.35]	0.19** [0.18, 0.21]	0.38** [0.32, 0.44]	0.24** [0.22, 0.26]	0.23** [0.19, 0.26]
Education							
Low	0.26** [0.22, 0.31]	0.35** [0.26, 0.45]	0.39** [0.31, 0.48]	0.27** [0.26, 0.28]	0.27** [0.23, 0.30]	0.51** [0.48, 0.54]	0.43** [0.28, 0.58]
Medium	0.16** [0.11, 0.20]	0.24** [0.19, 0.29]	0.14** [0.05, 0.22]	0.10** [0.09, 0.11]	0.27** [0.23, 0.30]	0.36** [0.34, 0.39]	0.29** [0.15, 0.42]
Age							
18-30	0.20** [0.15, 0.24]	0.11** [0.03, 0.19]	0.03 [-0.11, 0.18]	0.14** [0.12, 0.15]	0.23** [0.19, 0.27]	0.13** [0.10, 0.16]	0.16** [0.11, 0.21]
31-40	0.09** [0.05, 0.13]	0.06* [0.01, 0.11]	0.06 [-.01, 0.14]	0.08** [0.07, 0.09]	0.12** [0.08, 0.16]	0.04** [0.02, 0.07]	0.07** [0.03, 0.10]
51-65	-0.09 [-0.18, 0.01]	-0.08* [-0.16, -0.01]	-0.10* [-0.18, -0.02]	-0.07** [-0.08, -0.06]	-0.05 [-0.15, 0.06]	-0.03 [-0.06, 0.01]	-0.04* [-0.08, -0.01]
LLFP	0.08** [0.04, 0.12]	0.11** [0.03, 0.19]	0.15** [0.08, 0.23]	0.23** [0.21, 0.24]	0.28** [0.24, 0.32]	0.02* [0.01, 0.05]	0.08 [-0.03, 0.18]
Country							
AU							-0.04** [-0.05, -0.03]
FIN							-0.09** [-0.10, -0.08]
ITA							-0.19** [-0.23, -0.16]
NOR							-0.26** [-0.27, -0.24]
UK							-0.13** [-0.14, -0.12]
Adj. Probabilities							
Overall	0.63	0.47	0.49	0.33	0.52	0.63	0.57
Single-parent female	0.75	0.66	0.73	0.50	0.66	0.82	0.75

Note. Values are estimated unstandardized regression coefficients, with standard errors in brackets. Linear probability models with standard errors were clustered by country. LFP= Labor force participation. Adj. Probabilities = Probabilities, after controlling for other factors, of a child residing in asset poverty in that category. Reference categories: Single-female parent (other family type); Education (Low); Age (41–50); Low Labor Force Participation (Medium/high); Country (USA). * $p < 0.05$ ** $p < 0.01$.

3.3 How does family structure shape asset poverty risk across countries?

Figure 2 reports the prevalence of children living in single-parent, female-headed families in the left panel (sorted from highest to lowest prevalence). Finnish and Italian children have the lowest prevalence of this risk factor with 11.6% and 10.1%, respectively. In comparison, U.S. children are about twice as likely as Italian or Finnish children to live in a SPF family (left panel of Figure 2). To understand the extent to which family-structure risk translates into poverty, we compare observed child poverty rates and penalties for each country and the pooled sample. We reiterate that penalties are the regression-adjusted probability that children living in a single-parent, female-headed household experienced asset poverty (right panel of Figure 2). The penalty across the pooled sample was high at 75% (without the United States, that pooled penalty was 65%). This is a stark contrast to the penalty of 53.4% for children in homes with other parent arrangements (results not shown).

In all countries, the risk of poverty for children living with a single mother was statistically significantly higher (reference group was all other family structures; $p < 0.05$; indicated by solid black dot in Figure 2). With the highest regression-adjusted penalty at 81.6%, U.S. children in SPF families were at a relatively stark disadvantage. With a penalty at 75.1%, Australian children in single-female parent families had the second-highest penalty behind the United States. Penalties were considerably lower in the United Kingdom at 65.6%, which had the largest difference between unadjusted rates and penalty.

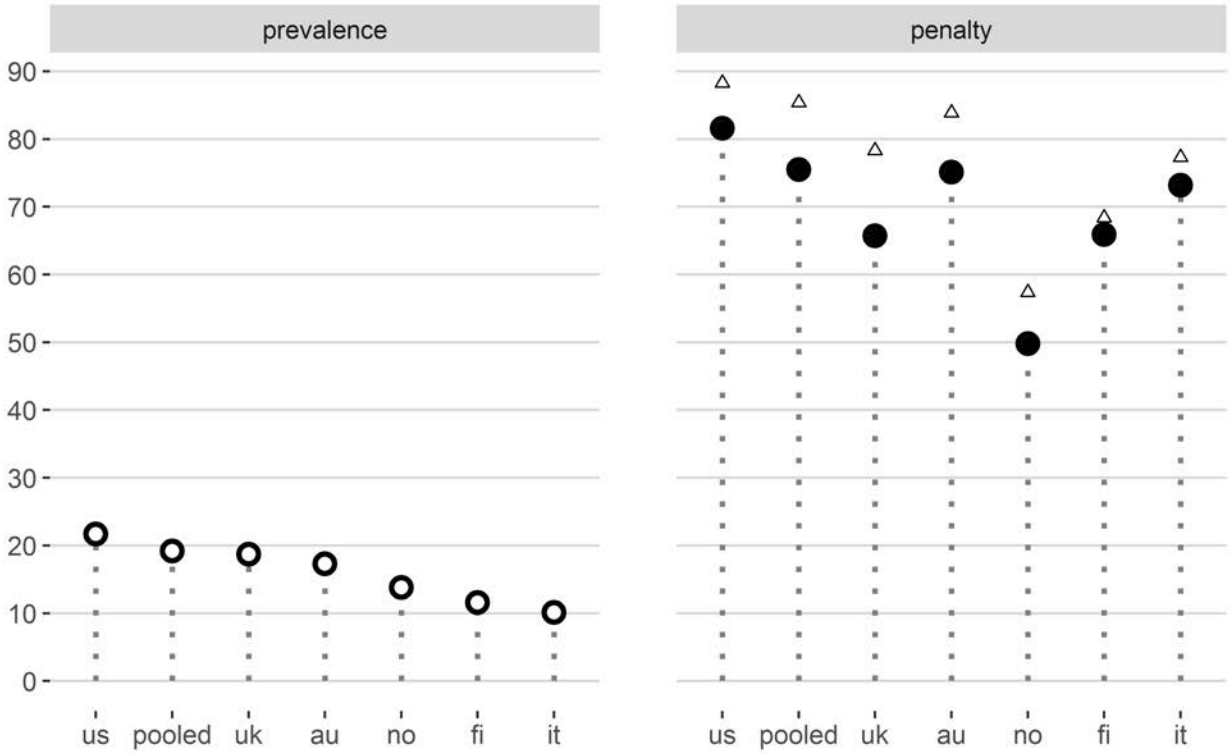

Figure 2. Child asset poverty risk across countries. Child asset poverty risk is comprised of two components: prevalence and penalty. Prevalence is defined as the proportion of children living in single-parent, female-headed families. Penalty is the regression-adjusted probability of child asset poverty among children in single-parent, female-headed families after adjusting for age, education, and labor force participation. The triangles represent unadjusted child asset poverty rates. Solid black dot indicates that the coefficient for single-female parent is statistically significantly different (other family type as reference) $p < 0.05$. AU = Australia; US = United States; Pooled = Pooled sample all countries; UK = United Kingdom; FI = Finland; IT = Italy; NO = Norway.

We turn to the simulations to consider counterfactual poverty rates of the United States assuming the prevalences and penalties of SPF families in other countries. In the most extreme case comparing the United States to Italy, who has the lowest child asset poverty prevalence, imposing the distribution of SPF families in Italy on the United States decreased the child asset poverty rate from its original 62.9% to 60.1%. The same simulation with the U.K., who has a similar child asset poverty prevalence, would reduce the rate from 62.9% to 62.2% (Figure 3). Alternatively, imposing the poverty penalty for children living in single female-headed (i.e., coefficients) of the other five countries, we see the simulated poverty rate would decrease for

four of the five countries. If the United States were to have the penalties of Australia, the child asset poverty rate is estimated to decrease from 62.9% to 60.9%. However, if the United States were to have the penalties of Italy, it is estimated the child asset poverty rate would increase from 62.9% to 63.6%, implying a large penalty for children living in single-female-headed households in Italy.

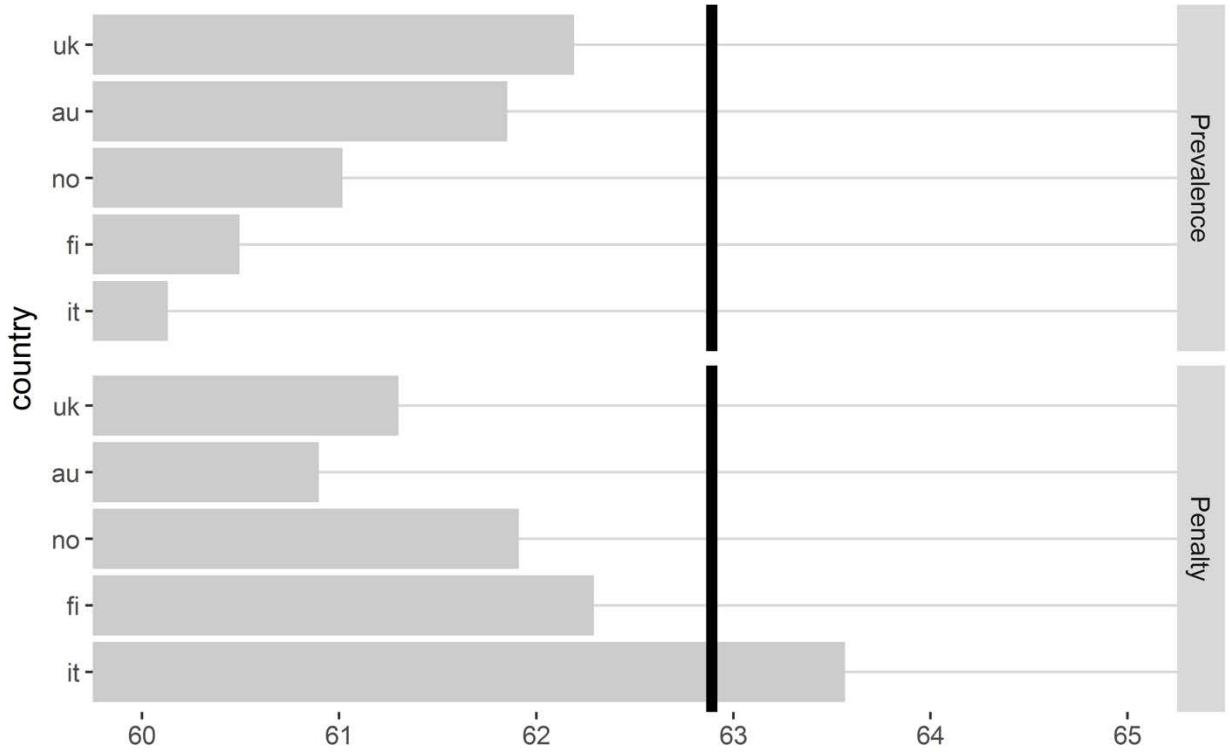

Figure 3. Counterfactual child asset poverty rates, assuming different prevalences and penalties. Each bar represents the counterfactual child asset poverty rate of the United States, assuming the reference countries' values for prevalences or penalties. Bars are sorted in order of prevalence of single-parent, female-headed households. Vertical solid black bar indicates the U.S. child asset poverty rate 62.9. AU = Australia; UK = United Kingdom; FI = Finland; IT = Italy; NO = Norway.

4 Discussion

Household income and poverty has been the standard benchmark to measure household well-being. However, academic research and political attention have shifted their focus towards

indicators of wealth and assets. Most of the interest has centered on the net worth and total wealth (Sierminska, 2018) and growing wealth inequality (Cowell et al., 2017; Pfeffer & Schoeni, 2016), with little attention to families with low levels of financial assets. Motivated to address this gap in knowledge, the current study used newly available harmonized and comparable data from household wealth surveys in six countries to investigate child asset poverty, i.e., the condition of children living in homes that lack financial assets to maintain three months at the relative income poverty level. The study yields a number of findings and implications for understanding child well-being.

Many children experience asset poverty. Between one-third (Norway) and almost two-thirds (U.S. and Australia) of children in the countries under study fell below the asset poverty threshold. As expected, and based on previous studies (Blumenthal & Rothwell, 2018; Brandolini et al., 2010; Haveman & Wolff, 2004; Rothwell & Robson, 2018), the extent of asset poverty was considerably higher than that of income poverty in each country. This conveys that there are many families with earnings and income above the income poverty threshold that own relatively few financial assets to draw down or invest in their children's futures. The sheer magnitude of the child population affected justifies the need to study this distinct construct of economic vulnerability.

Our research describes a widespread gradient of disadvantage where children are more likely than the overall population to experience asset poverty. We build on findings from Canada showing that children have higher levels of asset poverty than the general population (Blumenthal & Rothwell, 2018), and demonstrate this pattern applies to the U.S., Australia, Finland, Italy, Norway, and the U.K.. Although the effects of living in a family with low financial resources are less understood compared to the long tradition of studying income effects,

this study highlights a need for governments to consider why children are at such risk for asset poverty and what they can do to reduce this condition.

This paper contributes to the vast literature comparing child poverty rates across countries. Our primary finding—consistent with cross-national studies of income poverty (Gornick & Jäntti, 2012)—confirms that, among wealthy countries, American children have a uniquely large risk of growing up in an asset poor family. The gap between U.S. and other children was substantive in comparison to Italy and Norway. In relation to other Liberal welfare states (the U.K. and Australia) and Finland, the differences were smaller but still significant. Cross-national income poverty research has established that institutions and policies drive variation in poverty rates more than demographics (Brady et al., 2017; Chen & Corak, 2008; Gornick & Jäntti, 2012; Heuveline & Weinshenker, 2008) . Future work on cross-national asset poverty is needed to pinpoint some of the institutions and policies that shape asset poverty risk. In addition to comparing countries at one point in time it will be helpful for future studies to examine historical patterns of child asset poverty.

What explains the exceptionally high asset poverty rates in the United States? Using a poverty risk framework (Brady et al., 2017) we focused on a well-documented risk factor: the relatively high percentage of American children in SPF families. We systematically examined the roles of prevalences and penalties for SPF families and generated a number of implications for understanding cross-national child asset poverty. First, asset poverty rates of children in SPF families are extremely high in all countries: the pooled average poverty rate was above 85%, and over 50% in low child asset poverty country Norway. Given that most countries have seen a rise in the proportion of children living in SPF families due to the Second Demographic Transition, this study sheds light on a new way to think about economic precariousness among a growing

demographic group. Future research on asset poverty will need to better specify which factors associated with SPF families translate into high poverty risk. Prior research on wealth levels has noted major differences across subgroups of SPF families; i.e., differences for never married, divorced, and widowed (Sierminska, 2018). Second, the relatively larger variation in penalties (regression-adjusted difference in poverty risk for having the risk factor of SPF) compared to the variation in prevalences suggests that penalties are a stronger predictor of a country's asset poverty rate.

A consistent explanation of the variation in child asset poverty rates based on the prevalences and penalties of SPF families proved elusive. Comparing observed U.S. rates to poverty rates in English-speaking liberal welfare states U.K. and Australia shows that penalties matter more than prevalences. The reverse appears to hold in relation to Norway and Finland where introducing the prevalences of these countries to the U.S. would have greater reduction in poverty than introducing the penalties. In the most extreme example, imposing the dramatically lower prevalence of Italy (10%), the impact on child asset poverty would be fewer than 3 percentage points, and the U.S. child asset poverty rate would remain the second highest behind Australia. Additionally, presuming the Italian penalty onto the U.S. would actually increase the child asset poverty rate. In other words, although much fewer Italian children grow up in SPF families compared to the U.S., those who do face higher poverty penalties. Overall, the small changes in the hypothetical poverty rates suggests unexplained country effects.

In relation to previous research on cross-national income poverty, our study demonstrates how child asset poverty is a distinct indicator and suggests the need for policies that are sensitive to this measure. In countries such as Norway and Finland children are at lower risk of income poverty compared to the overall population (Gornick & Jäntti, 2012); but not so for asset

poverty. With respect to SPF families, in the U.K. and Norway, through a strong transfer system children in SPF families have statistically significantly lower risk of income poverty than non-SPF families (Brady et al., 2017). How social policies affect and might target child asset poverty is much less clear than the obvious connection between income transfers and income poverty. There is a need to increase access to liquid financial assets by increasing savings among less affluent families. Targeting the bottom of the wealth distribution with savings incentives may reduce asset poverty and reverse the trend towards greater wealth inequality.

4.1 Limitations

This study includes limitations. While we use survey weights to account for non-random sampling in each of the surveys, there are known differences in the sampling frames that may affect estimation. For example, the Survey of Consumer Finances in the U.S. oversamples the upper end of the wealth distribution whereas the Italian Survey of Household Income and Wealth did not. On measurement, we focused exclusively on financial assets. However, other wealth-type resources, such as real-estate, vehicles, and retirement savings could, in theory, be accessed to smooth consumption and promote a range of other positive outcomes. Race and ethnicity differences were not assessed, due to lack of meaningful comparisons across countries. In the United States, the wealth gap whereby non-Latino white families hold significantly more wealth than African-American and Latino families is well documented (Sullivan, Meschede, Dietrich, & Shapiro, 2015). The study is limited to the countries available in LWS at the time of study. With the introduction of more countries to the LWS database a number of opportunities for better understanding asset poverty will emerge. Last, the method used to account for number of children in household for the U.K. probably underestimated the number of children. The U.K.

measure was number of own children in the home, whereas other countries used an indicator of the number of children under age 18.

4.2 Conclusion

We introduce child poverty based on financial assets as a relatively new form of child-level economic hardship and expose the number of children facing such hardship in six wealthy nations. Overall, the magnitude of child asset poverty we describe – ranging from 35% in Norway to 63% in the U.S. and Australia – is important for gauging the extent of the problem but does not reveal the challenges facing many children and families who are living paycheck to paycheck. We lay the groundwork for future research by describing the U.S. as an outlier in the high risk of asset poverty experienced by its children. Understanding why child asset poverty is so high in the U.S. involves the interplay of demographic, market, institutional, and behavioral factors. We advance the field by showing that the oft-discussed high proportion of children in SPF families does not explain variation in asset poverty, at least in these countries. Future research will be able to continue to study the role of SPF and other demographic factors as the number of countries with comparable data expands. Understanding how child asset poverty rates change over time in relation to changing policies is another promising avenue of future research.

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