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PREVALENCES AND PENALTIES

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ABSTRACT

Considerable attention focuses on the risks of poverty, defined as individual-level labor market and family characteristics more common among the poor than the non-poor. This article first develops a framework for analyzing the risks of poverty in terms of prevalences (share of the population with a risk) and penalties (increased probability of poverty associated with a risk). Comparing the four major risks (low education, single motherhood, young headship, and unemployment) across 29 rich democracies, we show there is greater variation in penalties than prevalences. Second, we apply this framework to the U.S. We show that prevalences cannot explain high U.S. poverty as the U.S. has below average prevalences. Rather, the U.S. has high poverty partly because it has the highest penalties. U.S. poverty would decline more with cross-national median penalties than cross-national median prevalences, and U.S. poverty in 2013 would actually be worse with prevalences from 1970 or 1980. Third, we analyze cross-national variation in prevalences and penalties. We find very little evidence that higher penalties discourage prevalences, or that lower penalties encourage prevalences. We also show welfare generosity significantly moderates the penalties for unemployment and low education. We conclude with three broader implications. First, a focus on risks is unlikely to provide a convincing explanation or effective strategy for poverty. Second, despite being the subject of the most research, single motherhood may be the least important of the risks. Third, for general explanations of poverty, studies based solely on the U.S. are constrained by potentially large sample selection biases.

A prevailing and enduring feature of American poverty research has been a focus on risks. For a long time, scholars have stressed the individual-level family and labor market characteristics that are more common among the poor than the non-poor (O'Connor 2001). Recently, Sawhill (2014: 14) claims, "The ideal would be education, work, marriage, children – in that order. The achievement of these benchmarks will, in almost all cases, ensure that any children a couple decides to have are not born into poverty." Earlier in 2003, Sawhill wrote, "Those who graduate from high school, wait until marriage to have children, limit the size of their families, and work full-time will not be poor" (p.83). Nearly two decades earlier, Wilson (1987: 42, 71) explained, "Blacks, especially young males, are dropping out of the labor force in significant numbers. . .The rise of female-headed families has had dire social and economic consequences because these families are far more vulnerable to poverty than other types of families." As far back as 1899, DuBois (p. 72) wrote: "The great weakness of the Negro family is still lack of respect for the marriage bond, inconsiderate entrance into it, and bad household economy and family government. Sexual looseness then arises as a secondary consequence."[1]

    Beyond these examples, an extensive and deep literature concentrates on the individual risks of poverty (Cellini et al. 2008; Dahl 2010; DiPrete 2002; Edin and Kissane 2010; Kohler et al. 2012; McKeever and Wolfinger 2009; McLanahan 2004; Meyer and Wallace 2009; Ross et al. 1987). Many argue that effective anti-poverty social policies must reduce risks, and many call for reforms to existing social policies to discourage risks (Amato and Maynard 2007; Bane and Ellwood 1994; Chase-Lansdale and Brooks-Gunn 1997; England and Edin 2010; Garfinkel and

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[1] DuBois (1899: 72) continues: "There can be no doubt but what sexual looseness is today the prevailing sin of the mass of the Negro population, and that its prevalence can be traced to bad home life in most cases. Children are allowed on the street night and day unattended; loose talk is often indulged in; the sin is seldom if ever denounced in the churches."

McLanahan 1986; Haskins and Sawhill 2003; Jencks 1992; Sawhill 2003, 2014). A recent example is the AEI-Brookings (2015) "Consensus Plan for Reducing Poverty and Restoring the American Dream," which featured several prominent poverty scholars. The bipartisan plan concentrates on encouraging marriage and delayed parenthood, increasing employment especially among the less-educated, and reducing education gaps. On balance, a few critique this focus on individual characteristics (Brady 2009; Gans 1995; O'Connor 2001; Rank 2005) or argue for contextualizing risks in institutional contexts (DiPrete 2002; Kohler et al. 2012). For instance, Katz (2013: 269), writes, "The idea that poverty is a problem of persons – that it results from moral, cultural, or biological inadequacies – has dominated discussions of poverty for well over two hundred years and given us the enduring idea of the undeserving poor." Despite these occasional critiques however, there continues to be a great deal of scholarship on, discussion of, and interest in the risks of poverty.

Motivated by the continuing pervasive interest in the risks of poverty, this article has three main goals. First, we develop a framework for analyzing the risks of poverty. Building on classic techniques of standardization and decomposition, we examine the risks of poverty in terms of prevalences (share of the population with a risk) and penalties (increased probability of poverty associated with a risk). Focusing on working age households (HHs), we compare the prevalences and penalties of the four major risks (low education, single motherhood, young headship, and unemployment) across 29 rich democracies with recent Luxembourg Income Study (LIS) data. Second, we apply this framework to the U.S. We show that high U.S. poverty cannot be explained by prevalences as the U.S. has below average prevalences. Rather, the U.S. has high poverty partly because it has the highest penalties. Third, we analyze the cross-national variation in prevalences and penalties. We test whether higher penalties discourage prevalences,

or that lower penalties encourage prevalences (i.e. we assess if there is a negative relationship between penalties and prevalences). We also test whether welfare generosity can explain why penalties vary cross-nationally. Altogether, this article aims to advance understanding of the risks of poverty and explanations of poverty in general. In the process, we scrutinize how consequential risks are to poverty.

PREVALENCES, PENALTIES, AND THE FOUR MAJOR RISKS

We define risks as the individual labor market and family characteristics that are more common among the poor than the non-poor. Because these risks are individual and household characteristics reflecting age, employment, and family structure, these risks are often considered "demographic risks" or "risk factors." Risks are not ascriptive characteristics, and are at least partially malleable.[2] For our purposes, risks must also be readily observable. This means risks are manifest, not latent, characteristics that are measurable with available data.[3]

We conceptualize the risks of poverty as composed of prevalences and penalties. The prevalence is the share of a population with a risk. For instance, one can report the percent of the population residing in single mother HHs or in unemployed HHs. The penalties are the greater probabilities of poverty associated with a given risk. For example, one can claim that residing in a single mother HH increases one's probability of being poor by a given percentage.

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[2] Therefore, we do not model ascriptive characteristics, including especially sex, race/ethnicity and migrant status. These factors are associated with poverty in many (perhaps most) settings. However, they are beyond our scope, and are qualitatively different than the risks we focus on (e.g. race/ethnicity varies profoundly cross-nationally, and cannot be measured uniformly in the LIS). We return to the issue of race in the discussion section.

[3] Unfortunately, this forces us to omit illness/disability as a risk. Data on health/disability are not available for many countries in the LIS. However, illness/disability could be incorporated in future research (see e.g. Kohler et al. 2012).

While the measurement of prevalences is straightforward, we impose three criteria for the measurement of penalties. First, penalties should be in a standardized metric that is comparable across risks and contexts (e.g. countries or time). Second, the penalty for a given risk should be conditional on other risks and a reasonable set of other potential confounders. This guards against conflating the penalty of one risk with another (e.g. the penalty for single motherhood should be net of unemployment, young headship and low education). Some of the literature seeks to identify causal effects of risks and not just conditional estimates, acknowledging that risks are likely endogenous to poverty and unobserved variables. For our purposes, it is not essential to adjudicate whether risks have causal effects on or are simply associated with poverty.[4] Therefore, while some argue risks cause poverty, we define penalties simply as the strength of the conditional association between a risk and poverty. Third, penalties should be concordant such that a larger penalty is associated with a proportionately greater probability of poverty.

We focus on four major risks among working-aged HHs (i.e. HHs headed by those under 65 years old). Thus, we set aside the risks for poverty among HHs headed by those over 64 years old, though one could extend this framework to that population as well. The four most important risks are single motherhood, low education, unemployment, and young headship.[5] Those in single mother, low education, unemployed, and young headed HHs are more likely to be poor than those in married/partnered, moderately/highly educated, employed HHs, and HHs headed by non-young adults. By saying these risks are "most important," we simply mean: a) these risks

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[4] In cross-sectional data including many countries, obtaining causal estimates is also probably unrealistic. We return to this issue in the discussion section.
[5] More than the other three risks, unemployment is cyclical and follows the economic performance of the context in which one resides/works. We return to this issue below.

are the most commonly studied risks in the poverty literature; and b) as we confirm below, these four risks are empirically associated with the greatest penalties.

RISKS IN U.S. POVERTY RESEARCH

Literature on U.S. poverty exhibits an implicit consensus that these four risks are most important. Considerable evidence shows less educated people are more likely to be poor (Dahl 2010; Holzer 2009; Jacob and Ludwig 2009). Many focus on employment as an exit or escape out of poverty and identify unemployment as the central source of poverty (Bane and Ellwood 1994; Harris 1996; Jencks 1992; Rainwater and Smeeding 2004). Perhaps most well-studied among the risks, a vast literature shows that single motherhood is associated with poverty (Amato and Maynard 2007; Ananat and Michaels 2008; Bedard and Deschênes 2005; Cancian and Reed 2009; Garfinkel and McLanahan 1986; Lichter et al. 2003; Lichter et al. 2006; McLanahan 2004; Musick and Mare 2004; Tach and Eads 2015; Thomas and Sawhill 2002; Waite and Gallagher 2000; Wu 2008). Though perhaps less well-known, scholars also point to young headship as a risk (Cellini et al. 2008; Dahl 2010; Sawhill 2014).

To document the role of risks in contemporary research on U.S. poverty, we review four of the most prominent recent literatures. One can also find a similar interest in risks in the literatures on poverty in Europe and other rich democracies – although with some different conclusions that we discuss below (e.g. DiPrete 2002; DiPrete and McManus 2000; Fritzell and Ritakallio 2010; Gesthuizen et al. 2011; Kohler et al. 2012; Layte and Whelan 2010; Lohmann 2009; Misra et al. 2012; Rainwater and Smeeding 2004; Rovny 2014; Vandecasteele 2011). We focus on these four prominent American literatures given their centrality to the broader social

science of poverty. This review aims to: a) demonstrate the salience of risks in contemporary poverty research, and b) highlight tendencies in how risks are studied.

First, following the 1996 welfare reforms, an extensive literature evaluates the effects of policy changes such as the end of an entitlement to family assistance, and the introduction of time limits on and work requirements for welfare benefits. A central concern of this literature is how welfare reform affected risks like unemployment, young headship, non-marriage, and out of wedlock births (Bane and Ellwood 1994; Cherlin et al. 2009; Fitzgerald and Ribar 2004; Lichter and Crowley 2004). Many conclude that welfare reform was successful because it encouraged employment, and reduced young headship, and single motherhood (Haskins and Sawhill 2003; Hofferth et al. 2002; Moffitt 2008; Schoeni and Blank 2000). Moffitt (2002), for example, writes: "The great transformation of the welfare system set off by state reforms in the early 1990s and by the 1996 federal welfare reform law had as its primary focus the encouragement of work by mothers on welfare. This goal has been achieved to a much greater degree than anyone expected." Building on this literature, Haskins and Sawhill (2003) argue that encouraging work and marriage is far more effective at reducing poverty than increasing welfare benefits.

Second, partly inspired by Wilson (1987), an active research program explores "neighborhood effects" on the life chances of the poor. Many studies predict the education, single/young motherhood, and unemployment of residents as a result of neighborhood poverty or disadvantage (e.g. Leventhal et al. 2005). For instance, scholars often study how growing up in poor/disadvantaged neighborhoods leads to the four major risks (Duncan et al. 1997; Harding 2007; Wodtke 2013; Wodtke et al. 2011). Evaluating the "Moving to Opportunity" (MTO) program, Ladd and Ludwig (1997) demonstrate relocation to a less poor neighborhood improves adolescent educational outcomes – such as high school completion. Similarly, neighborhood

disadvantage is often measured with indices based on the prevalence of risks (e.g. Sampson et al. 1997; Wodtke et al. 2011).

Third, in the past 10-15 years, a body of research examines the family formation and child well-being of economically disadvantaged unmarried families based on the Fragile Families dataset (Osborne et al. 2012). One principal question of this and related research is to understand why low-income parents conceive children and do not get married (Carlson et al. 2004; Edin and Kefalas 2011; Gibson-Davis et al. 2005; Lichter et al. 2003; Lichter et al. 2006). For example, the subtitle of a chapter by England and Edin (2010) is "Why don't they marry?" and section headings include: "Why couples do not marry" "Why couples do not use contraception" "Why couples break up" and, "Which fathers are most likely to marry?" In her American Sociological Association Presidential Address, England (2016) investigates why low-income couples fail to use contraception, which leads to greater unintended pregnancies and nonmarital births. Reviewing research using the Fragile Families dataset, Sawhill and colleagues (2010) conclude, "Given the costs of nonmarital births to fragile families and society as a whole, policymakers' primary goal should be to do everything possible to reduce the prevalence of fragile families." Reflecting on contributions from the dataset, McLanahan (2009) writes, "To break the intergenerational cycle of poverty, we will need to find a way to persuade young women from disadvantaged backgrounds that delaying fertility while they search for a suitable partner will have a payoff that is large enough to offset the loss of time spent as a mother or the possibility of forgoing motherhood entirely."

Fourth, scholars have recently sought to rejuvenate cultural explanations of poverty (Patterson and Fosse 2015). The new cultural explanations are less deterministic than older cultural theories, however both share a central argument. In both, culture contributes to the

poor's problematic behavior, this problematic behavior causes risks, and risks reproduce poverty. According to Small and colleagues (2010: 6), the goal is: "explicitly explaining the behavior of low-income population in reference to cultural factors." The poor's behaviors and risks then are: "processes and mechanisms that lead to the reproduction of poverty" (Small et al. 2010: 23). While distinguishing cultural "frames" from the older focus on "values," Small and colleagues (2010: 15) claim: "Rather than causing behavior, frames make it possible or likely." Because culture encourages problematic behavior and has an "'exogenous explanatory power' that serves to inhibit socioeconomic success" (Vaisey 2010: 96), risks are central to this literature. For example, Harding (2007) argues cultural heterogeneity in poor neighborhoods encourages problematic sexual behavior of adolescent males, which results in greater single motherhood and young headship. Vaisey (2010) contends that low educational aspirations of poor youth hinder school continuation, which results in lower levels of education and unemployment.

Overall, these four literatures, the extensive literature cited above, and many others, exhibit widespread interest in the risks of poverty. Despite the contributions of these literatures however, there are five interconnected limitations with how risks are typically studied.

(1) The vast majority focuses on prevalences, and relatively few focus on penalties.

(2) Despite some attempts, it remains quite unclear if realistic counterfactual prevalences would make a substantial difference to poverty levels.

(3) Because relatively few studies focus on penalties, we have less understanding of how much of the variation in poverty can be explained by variation in penalties.

(4) Most study only the U.S., and do not scrutinize whether the U.S. is unusual or not generalizable.

(5) As a result, relatively little attention is devoted to the institutional/policy context in which risks exist. Relatedly, few studies investigate how penalties vary across contexts.

These limitations become clearer considering the comparative literature on risks in other rich democracies (Andreß et al. 2006; Barbieri and Bozzon 2016; Bernardi and Boertien 2016; Brady and Burroway 2012; DiPrete 2002; Fritzell and Ritakallio 2010; Gesthuizen et al. 2011; Heuveline and Weinshenker 2008; Lohmann 2009; Kohler et al. 2012; Layte and Whelan 2010; Misra et al. 2012; Rainwater and Smeeding 2004; Rovny 2014; Vandecasteele 2011). In contrast to the U.S. context, the comparative literature reveals substantial variation in both prevalences and penalties. For example, by highlighting how single motherhood is distinctively disadvantaged in the U.S., the comparative literature emphasizes the unusually high penalty attached to this risk in that context (Brady and Burroway 2012; DiPrete and McManus 2000; Heuveline and Weinshenker 2008; Misra et al. 2012).[6] Moreover, unlike counterfactual simulations based on the U.S. (e.g. Thomas and Sawhill 2002), the comparative literature suggests risks are unable to explain most of the variation in poverty (e.g. Heuveline and Weinshenker 2008). More generally, the comparative literature demonstrates the salience of institutional context for risks and poverty. Therefore, the comparative literature gives us strong reasons to suspect these five limitations are consequential.

CROSS-NATIONAL VARIATION IN PREVALENCES AND PENALTIES

Data, Measures and Models

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[6] Similarly, the penalties of unemployment and single motherhood for child poverty have changed dramatically over time within the U.S. (Baker 2015).

We analyze the Luxembourg Income Study (LIS), a cross-nationally and historically harmonized archive of individual-level nationally-representative datasets. The LIS is arguably the best available source for our purposes because of its high quality and standardized measures of income and other demographic characteristics. The code for the dataset and analyses is available on the first author's webpage

(https://bradydave.files.wordpress.com/2017/03/demriskreplication.pdf).

We use recent datasets for the 29 rich democracies available in the LIS.[7] We focus on rich democracies because even though they exhibit cross-national variation, they are a reasonably coherent set. We include all individuals in HHs with heads less than 65 years old. Though poverty among HHs with heads over 64 years old is also shaped by risks, the risks for that population are likely different and beyond our scope. The sample sizes range from 4,248 in Belgium to 403,854 in Norway. Most samples are much larger than Belgium's, and even 4,248 is large enough to reasonably estimate the penalties.

To measure poverty, we utilize the LIS's high quality measure of disposable HH income (Rainwater and Smeeding 2004). Disposable HH income incorporates taxes and transfers, and we equivalize this measure by dividing by the square root of HH members. Following the overwhelming majority of international poverty research (e.g. Baker 2015; Brady 2009; Brady et al. 2013; Brady and Bostic 2015; Brady and Burroway 2012; Fritzell and Ritakallio 2010;

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[7] We used the most recent LIS data in March 2015. The countries and years are Australia 2010; Austria 2004; Belgium 2000; Canada 2010; Czech Republic 2010; Denmark 2010; Estonia 2010; Finland 2010; France 2010; Germany 2010; Greece 2010; Hungary 2005 (because of high missingness in more recent waves); Iceland 2010; Ireland 2010; Israel 2010; Italy 2010; Japan 2008; South Korea 2006; Luxembourg 2010; the Netherlands 2010; Norway 2010; Poland 2010; Slovenia 2010; Spain 2010; Slovak Republic 2010; Sweden 2005; Switzerland 2004; U.K. 2010; and USA 2013. Robustness checks, using samples all near 2005 or adding a control variable for before/after 2007 produced very similar results. Also, in all analyses pooling countries we adjust for the country-level unemployment rate to control for different business cycles.

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Heuveline and Weinshenker 2008; Rainwater and Smeeding 2004), we operationalize *poverty* as those residing in HHs with less than 50 percent of a country's median equivalized disposable HH income (reference=not poor).

To measure prevalences, we estimate the proportion of the population with a given risk (with sample weights). *Young head* includes those in a HH lead by someone under 25 years old. To identify the lead of the HH, we select the adult with the highest labor market earnings (with ties broken by higher age) (Brady et al. 2013). *Single motherhood* is defined as those in a HH that is headed by an unmarried/unpartnered female who resides with her own under-18 children.[8] *Low education* utilizes the standardized LIS education variable, and is measured as residing in a HH where the lead earner has less than an upper secondary degree (e.g. a high school degree in the U.S.). *Unemployed* is measured as living in a HH with no employed people.

As outlined above, the measurement of penalties should be comparable, conditional, and concordant. As a result, we estimate linear probability models of poverty and utilize the coefficients for the risks as estimates of the penalties. We choose linear probability models over logistic regression because of the three criteria. Unfortunately, logistic regression coefficients or odds ratios are not comparable across models or samples (Ai and Norton 2003; Allison 1999). Average marginal effects (AMEs) for each risk would be more comparable. However, the median country coefficient does not translate linearly to the median AME, and therefore, counterfactual simulations would not be concordant. Also, it is not straightforward to calculate

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[8] Our definition of single mothers includes cohabiting couples in the reference group. We do so because the LIS marital status variable classifies stable (i.e. long-term) cohabiting unions as married in several countries. As it is not possible to consistently differentiate stable cohabiting unions from less stable cohabitation, we code single mothers only as those not living with her partner. In other analyses, we relied solely on the stricter LIS marital status variable. All results and conclusions were consistent.

AMEs in the multilevel models used below. For comparison however, we replicated all the single country linear probability models with logistic regression and estimated penalties as AMEs. The results are quite similar and are displayed in Appendices I-II. Finally, we chose linear probability models because interactions are more straightforward (Allison 1999) – and cross-level interactions play a key role in the multilevel models below.

The models are estimated within each of the 29 countries using LIS weights. The standard errors are adjusted for both the clustering of individuals within HHs, and the inherent heteroskedasticity of linear probability models. Appendix II displays results from the model for the U.S. as an example for how penalties are estimated in each of the 29 countries. Appendix II also shows that the logistic regression model for the U.S. generates results very consistent with the linear probability model.

The penalties are the coefficients for the four risks. The young head coefficient is in reference to 35-54 year old heads. The single motherhood coefficient is in reference to couple or single father HHs.[9] The low education coefficient is in reference to a medium educated lead (i.e. a secondary degree or its equivalent). Finally, the unemployment coefficient is in reference to HHs with one employed person.

In addition to the four risks, the models include the following variables that previous research links with poverty (e.g. Brady and Bostic 2015; Kohler et al. 2012; Layte and Whelan 2010; Rainwater and Smeeding 2004; Vandecasteele 2011). We include dummies for HHs lead by *25-34 year olds* and those *over 54 years old*. We also control for *female-head no child HHs*

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[9] We consolidate single father and couple HHs for two reasons. First, the proportion of single father HHs is very low, averaging less than 1.5% across countries, which makes estimation impossible in some countries. Second, when estimable, single father HHs are not usually significantly different from couple HHs for poverty.

and *male-head no child HHs*. We include measures of the *number of children*, defined as under 18, and the *number of adults over 64 years old* in the HH. *High education* is measured as a college degree or more. With one employed person in the HH as the reference, we also control for *multiple earner HHs*.

The Prevalences of Risks

Figure 1 displays the prevalences of the four risks across the 29 countries. The y-axes are the percent of the population with a given risk. Each row features one risk across countries. There is considerable cross-national variation in the prevalences of all four risks. Overall, the prevalences of young headship and single motherhood are lowest, and the prevalence of unemployed HHs is somewhat higher. The prevalence of low education is highest by far.

[FIGURE 1 ABOUT HERE]

For young headship, Australia, Japan, Norway and the U.K. exhibit fairly high prevalences. In all four countries, the prevalence of young headship exceeds 7 percent. By contrast, Greece, Italy, South Korea, and Switzerland have low prevalences. In Italy and South Korea, the prevalence of young headship is less than two percent.

For single motherhood, the highest prevalences include Ireland, the U.K., and the U.S. – all with more than 8.75 percent in single mother HHs. Greece, Slovenia, and Slovakia exhibit low prevalences of single motherhood – all below 2.4 of the population.

The prevalence of low education is highest in Italy and Spain and lowest in the Czech Republic, Japan, and Slovakia. In Spain and Italy, more than 40 percent of those in working aged HHs reside in HHs led by low-educated lead earners. In the three lowest prevalence countries,

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the prevalence of low educated HHs is below 5.5 percent. At 10.4 percent, the prevalence of low education in the U.S. is the fifth lowest.[10]

The prevalence of unemployment is highest in Belgium, Ireland, Hungary, Poland, and the United Kingdom – all greater than 10 percent.[11] The prevalence of unemployment is lowest in Canada, Iceland, Japan, and Norway – all less than 5 percent. At 6.2 percent, the U.S. has the 10th lowest prevalence of unemployment.

Of course, risks are not mutually exclusive and the probability of poverty is likely higher with multiple risks. Figure 2 graphs the percent of the population with 1, 2, 3 and 4 risks. Spain, Italy and Ireland have the highest share of their population with at least one risk. The prevalence of any risk is almost 50 percent in Spain, and about 45 percent in Italy and Ireland. In Spain and Italy, this is mostly driven by the prevalence of low-educated heads. In contrast, less than 15 percent of Japan and Slovakia have at least one risk.

[FIGURE 2 ABOUT HERE]

Notably, it is extremely rare for people to have four or even three risks. Poverty scholars often focus on groups that have multiple risks – e.g., young, less educated, unemployed single mothers (e.g. Desmond 2016; Edin and Kefalas 2011). However, those having three or four are quite unusual. Indeed, those with four risks are less than one percent in every country and are

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[10] Even in highly disadvantaged neighborhoods in the U.S., the prevalence of low education is not particularly high relative to many rich democracies. Wodtke and colleagues (2011: Figure 3) estimate the predicted probability of failing to graduating high school as 24 percent for Blacks and 13 percent for Whites in neighborhoods with the highest level of disadvantage. Eight countries have a higher prevalence of low education for their entire working-aged population than this estimate for Blacks in the most disadvantaged neighborhoods in the U.S.

[11] The moderate prevalence of unemployment in some countries, such as Spain in 2010 (7.3 percent), may be surprising. However, unemployment is defined as having no one employed in the HH. In Spain and many countries, unemployed individuals (especially young adults) typically co-reside with employed parents, spouses, and siblings. Co-residence also reduces the cyclicality of unemployed HHs over time.

only even visible in Figure 2 for Ireland and Australia. This rarity implies studies of such groups likely have limited generalizability.

The Penalties for Risks

Figure 3 displays the cross-national variation in penalties. The y-axes are the coefficients for a given risk. These coefficients can be interpreted as the conditional difference in the probability of poverty for having a given risk. Again, the results are quite similar with AMEs from logistic regression (see Appendices I and II). To ease interpretation, the penalties are multiplied by 100. Solid dots indicate statistically significant penalties, and hollow dots indicate non-significance. Each row features one risk. Like prevalences, there is considerable cross-national heterogeneity. Generally, the largest penalties are for unemployment, and the smallest penalties are for single motherhood.

[FIGURE 3 ABOUT HERE]

The penalty for young headship is greatest in Denmark and Norway. Young-head HHs in these countries have higher probabilities of poverty by about 27.6 and 34.7 percentage points. In 11 of the 29 countries, the penalty for young headship is not significant. Austria, Hungary and Poland have the smallest penalties for young headship.

The penalty for single motherhood is greatest in Luxembourg, Japan and the U.S. In these countries, single mother HHs have higher probabilities of poverty of more than 14.3 percentage points. The penalty for single motherhood is not significant in 16 of 29 countries. Among the four risks, single motherhood is the least reliably significant penalty. In Denmark and the U.K., the probability of poverty is actually significantly lower among single mother HHs.[12] As prior

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[12] Recall, penalties are conditional on all other variables. The U.K.'s significant negative coefficient for single motherhood is not driven by a small sample as the U.K. sample exceeds 47,000 and includes over 4,600 in single mother HHs. Although single mother HHs are more

research shows (e.g. Brady and Burroway 2012; Heuveline and Weinshenker 2008; Misra et al. 2012), single mothers are especially vulnerable to poverty in the U.S. and a few other countries, while single mother poverty is quite low in Denmark and a few other countries.

Among low-educated HHs, the penalty is greatest in the U.S. by a considerable margin. Low-educated HHs have higher probabilities of poverty by 16.4 percentage points in the U.S., while all other countries have penalties below 11.7. Still, the penalty for a low-educated head is also high in the Czech Republic, Israel, and Poland (all with penalties above 11.3). The penalty for a low-educated head is not statistically significant in 11 countries. The penalty for a low-educated head is even significantly negative in Norway.

Finally, unemployment has the most robust penalty across the 29 countries. The penalty for unemployment is largest in Australia, Canada, Estonia, Japan and the U.S. Unemployed HHs in these countries have higher probabilities of poverty by more than 42 percentage points. Only one country, Iceland, exhibits an insignificant unemployment penalty. Denmark, Luxembourg, and the Netherlands have relatively smaller penalties for unemployment (below 15). However, even for these countries, the penalty for unemployment is larger than the penalties for most countries for the other risks.

To illustrate the cumulative effect of these various penalties, Figure 4 sums the penalties for all four risks.[13] In the U.S., having all four risks is associated with a 91.4 percentage point

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likely to be poor in a bivariate comparison, conditioning on employment results in the significant negative coefficient for single motherhood.

[13] This sum assumes penalties are additive and independent, though they plausibly interact in compounding or diminishing ways. This sum is meant to be illustrative of the combined scale of penalties, rather than a definitive estimate. One limitation with linear probability models is that predictions are not bounded between zero and one. However, the combined AMEs for the U.S. suggest similarly unusually large penalties (see Appendix II, although the AMEs are not additive or independent either).

higher probability of poverty. Only Japan has combined penalties of 90 percentage points, and only Canada exceeds 75. By contrast, the combined penalties for four risks are below 25 percentage points in Hungary and Iceland, and below 30 in the U.K.

[FIGURE 4 ABOUT HERE]

Because having all four risks is rare, the combined penalties of three (omitting the largest penalty for unemployment) or two (omitting the next largest penalty for low education) risks are also instructive. In the U.S., the probability of poverty is greater by almost 49 percentage points for those with the three remaining risks. All other countries are below 36. In the U.S., the probability of poverty is about 32 percentage points higher for single mother and young headed HHs (i.e. two risks). Canada, Germany, Japan and Spain also have a fairly high combined penalty for two risks, but none exceed 27.

Variation in Prevalences and Penalties

As there are four risks, two aspects (prevalences and penalties), and 29 countries, we use the coefficient of variation (CV = mean/standard deviation) to describe the cross-national variation in Table 1. There is more variation in penalties than prevalences for three of four risks. For those three risks – young headship, single motherhood, and low education – the variation in penalties is much larger than the variation in prevalences. For example, the variation in the penalty for single motherhood is more than 3.4 times larger than the variation in prevalences. For unemployment, the variation in penalties is very slightly smaller than in prevalences (CV=.461 vs. .454). Still, overall, rich democracies vary much more in the penalties attached to risks than in the prevalence of risks.

[TABLE 1 ABOUT HERE]

CAN RISKS ACCOUNT FOR UNUSUALLY HIGH U.S. POVERTY?

Thus far, we have shown that there is more variation in penalties than prevalences. This implies that penalties have greater explanatory power than prevalences. To test this implication, we apply the prevalences-penalties framework to a classic question in poverty research: why does the U.S. have unusually high poverty relative to other rich democracies?

Figure 5 shows the kernel density plot of poverty rates across the 29 countries. The U.S. poverty rate is marked with the vertical line. As many have documented (e.g. Brady 2009; Rainwater and Smeeding 2004), the U.S. poverty rate of 16.3 percent is unusually high compared to other rich democracies. Only Israel has a higher poverty rate among working-aged HHs (19.1 percent). The mean poverty rate across the 29 countries is 9.3 percent.

[FIGURE 5 ABOUT HERE]

Though the U.S. has the second highest poverty rate, the U.S. does not have a similarly high prevalence of risks. About 25.4 percent of the U.S. has at least one risk, below the cross-national mean of 30.9 percent (see Figure 2). Only nine of the 29 countries have a lower prevalence of at least one risk. Several countries have low poverty rates despite having a higher prevalence of risks than the U.S. For example, Belgium, Denmark, Hungary, Iceland, Luxembourg, the Netherlands, Norway, Sweden, and the U.K. all have a prevalence of at least one risk above the cross-national mean (29.3 percent) but a poverty rate below the cross-national mean (9.3 percent). Because the U.S. has a below average prevalence of risks, the prevalence of risks cannot account for the unusually high U.S. poverty.

Though U.S. prevalences are below average, the U.S. has the highest penalties of the 29 rich democracies. Because the combined penalties for all four risks in the U.S. is about .914 (see Figure 4), such a person is very likely to be poor. The sum of penalties in the U.S. is much higher

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than the cross-national mean of .507. The U.S. also stands out for having a much higher combined penalty for three or two risks (see Figure 4). What is distinctive about the U.S. is the very high penalties attached to risks.

To further test whether risks can explain the unusually high poverty in the U.S. we simulate what would happen to U.S. poverty with counterfactual prevalences and penalties. These simulations use the linear probability model of U.S. poverty (see Appendix II). We then substitute alternative values for the share of the population with risks and predict poverty with counterfactual prevalences. Also, we substitute alternative coefficients for the risks and predict poverty with counterfactual penalties.

Our approach is influenced by prior decomposition and simulation exercises (Bernardi and Boertien 2016; Gornick and Jäntti 2012; Heuveline and Weinshenker 2008; Rainwater and Smeeding 2004; Ross et al. 1987). Moreover, our approach builds upon classic techniques of standardization and decomposition (Blinder 1973; Kaufman 1983; Kitigawa 1955; Oaxaca 1973; Treiman 2009: 175).[14] There are at least two differences with extant poverty research however. First, we combine all four risks whereas previous studies on poverty typically focus on one risk at a time. Second, with a few exceptions (e.g. Gornick and Jäntti 2012), most focus on simulations with counterfactual prevalences, and devote less attention to counterfactual penalties.

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[14] Similarly, our term prevalences parallels that literature's "endowments" and penalties parallels that literature's "propensities" (or the coefficient components). Despite these similarities, we propose the prevalence and penalty framework is preferable for studies of poverty. First, the terms "prevalence" and "penalty" better align with the connotations of the extent and undesirability of the four risks as portrayed in poverty research. Second, prior decomposition approaches mainly emphasize the degree to which group differences in endowments and coefficients explain differences in the outcome. However, the magnitudes of the prevalences and penalties themselves carry substantive meaning within poverty research, above and beyond group differences in these factors.

Figure 6 displays the counterfactual U.S. poverty rates with median prevalences and median penalties from the 29 rich democracies.[15] All counterfactuals are statistically significantly different from the model's predicted poverty rate.[16]

[FIGURE 6 ABOUT HERE]

Figure 6 reveals U.S. poverty would be higher with cross-national median prevalences of young headship, low education, and unemployment. Moreover, the U.S. would experience significantly higher poverty (16.8 percent) with cross-national median prevalences for all four risks (vs. model predicted 16.1 percent). This is especially because the U.S. has much lower than median prevalences of low education and unemployment. However, the poverty rate would even be higher with the median prevalence of low education (16.9 percent). On balance, the U.S. would have statistically significantly lower poverty if it had the cross-national median prevalence of single motherhood. However, the counterfactual estimate of 15.4 percent is only modestly lower substantively, and the U.S. would still have the second highest poverty rate.

Though the U.S. would have higher poverty with cross-national median prevalences, cross-national median penalties would reduce poverty more substantially. Assigning the median penalty for each of the four risks would significantly reduce poverty. For example, the U.S. poverty rate would be 15.3 percent with the median penalty for single motherhood, and 14.7 percent with the median penalty for low education. U.S. poverty would be 13 percent with all four median penalties. Therefore, a much larger reduction in U.S. poverty would occur with

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[15] In Appendix III we display simulations with median prevalence and penalties calculated from a pooled population-weighted cross-national sample (excluding the U.S.). The results are consistent with those presented in Figure 6.

[16] We conducted t-tests of means in Stata.

cross-national median penalties than cross-national median prevalences. That said, it is important

to keep in mind that the U.S. would still have the third highest poverty rate.

U.S. poverty scholars often argue that returning to historic prevalences of risks would

substantially reduce U.S. poverty (e.g. Sawhill 2014; Thomas and Sawhill 2002). For example,

perhaps poverty would be much lower if the U.S. had the same marriage levels today as in 1970

or 1980. Figure 7 displays counterfactual simulations of 2013 U.S. poverty with 1970 or 1980

prevalences of each of the four risks (and the same penalties as in 2013). Again, all of the

counterfactuals are statistically significantly different from the model predicted poverty rate.

[FIGURE 7 ABOUT HERE]

The paramount conclusion from Figure 7 is that poverty would be much worse with 1970

or 1980 prevalences of all four risks. Specifically, U.S. poverty would be a significantly higher

22.2 percent with 1970 prevalences, and 21.5 percent with 1980 prevalences. In both

simulations, the U.S. would have the highest poverty of the 29 rich democracies – even higher

than Israel. This result emerges because the prevalences of young headship, low education, and

unemployment were lower in 2013 than in 1980 or 1970. Poverty would also be significantly

higher if the U.S. had 1970 or 1980 prevalences for any one of those three risks.[17]

If the U.S. returned to 1980 prevalences of single motherhood, poverty would also be

significantly higher. This is because single motherhood declined from a prevalence of 10.5

percent in 1980 to 8.8 in 2013. On balance, U.S. poverty would be lower with the 1970

prevalence of single motherhood. The prevalence of single motherhood did increase modestly

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[17] In other analyses, we defined low education as less than 8 or 9 years of schooling or lacking a
college degree. We also experimented with defining young headship as under 23 or 21 years old.
The results were similar: poverty would be higher in 2013 with historical prevalences of these
alternative measures of low education or young headship.

from 7.4 in 1970 to 8.8 in 2013. That said, the evidence does not support claims that returning to historic prevalences are an effective solution to U.S. poverty. Poverty would be a tiny bit lower 15.98 percent with the 1970 prevalence of single motherhood (instead of 16.1 percent). With this simulation, the U.S. would still have the second-highest poverty rate.[18]

Further, it is questionable if it is realistic to return to 1970 on single motherhood, but not on the other three risks. After all, the declines of low education, young headship and unemployment have likely contributed to the rise of single motherhood (Cohen 2014; Tach and Eads 2015). Therefore, the declines in the other three risks (low education, unemployment, and young headship) are at least as important to poverty as any rise of single motherhood.

THE RELATIONSHIPS BETWEEN PENALTIES AND PREVALENCES

We have argued that penalties vary more cross-nationally than prevalences, and lower penalties have larger consequences for U.S. poverty than lower prevalences. One implication is that countries should reduce penalties to reduce poverty. However, scholars often express concern that lower penalties would increase prevalences (Bane and Ellwood 1994). Purportedly, high penalties provide an incentive against high prevalences (see Jencks 1992: 226). If individuals know that a risk (e.g. not finishing high school or having a child outside marriage) increases the probability of poverty, this should incentivize people against those risks. For such a

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[18] Because the prevalence of single motherhood is only 8.8 percent, even extreme changes to this prevalence would not dramatically reduce U.S. poverty. As a somewhat hyperbolic example, if single motherhood was completely eliminated and the prevalence was zero, U.S. poverty would be still be second highest at 14.8 percent. This is calculated by subtracting .088 from 0, and multiplying by the penalty for single motherhood (.143), which results in the probability of poverty declining .161-.013. As an even more extreme example, say we underestimated the penalty for single motherhood and it is actually twice as large (.286), and then we eliminated single motherhood. Poverty would decline by 2.5 percent to 13.6 percent, which would be the third highest of the 29.

relationship to bias our other results, there should be a strong negative relationship between penalties and prevalences cross-nationally.[19] As a result, we now turn to an analysis of the cross-national variation in prevalences.

Data, Measures and Models

To test for a negative relationship between penalties and prevalences, we first examine the macro-level bivariate correlations for each risk. Next, we estimate models predicting whether an individual has each of the risks. The dependent variables are whether an individual is in: a) an unemployed HH, b) a single mother HH, c) a young head HH, or d) a low educated head HH. The key independent variable in each model is the country-level penalty for a given risk. In addition, the models adjust for the variables from the individual country analyses (i.e. age of head [<25, 25-34, >54], female-head no child HH, male-head no child HH, # children, # >65, high-educated head, low-educated head, unemployed HH, and multiple earners in HH). The exception is we omit variables that cannot occur because of the dependent variable [20]

We estimate multilevel linear probability models with individuals nested in 29 countries, with robust standard errors. We estimate random intercepts models including country-level penalties. If high penalties discourage prevalences, the coefficients for the country-level penalty should be significantly negative. We estimate two models for each risk. The first includes all individuals because one could potentially have any risk (e.g. an adult male could reside in a single mother HH). The second model restricts the sample to individuals that are most

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[19] A negative relationship could also result from adverse selection. Being in a low prevalence risk group could reflect that the behavior is more "deviant" and thus susceptible to heavier penalties.

[20] The unemployment model omits the multiple earners dummy. The single mother model omits dummies for female- and male-head no children HHs. The young head model omits dummies for head 25-34 and head >54. The low education model omits the high education dummy.

"vulnerable" to a risk (e.g. the restricted model predicting unemployed HH includes only adults

25-54 years old who do not have high education). By focusing on those most at risk of risks, we

aim to maximize the chance for the penalty to have a significant negative effect.

Because the samples vary in size by country, this would weight countries arbitrarily

according to sample size. Therefore, we construct a balanced sample by randomly selecting

4,248 individuals in each of the 29 countries.[21] This generates a sample of 123,192 evenly

distributed across the 29 countries. Descriptive statistics for this sample are available in

Appendix IV.[22] For comparison, Appendix V displays multilevel logistic regression results,

which are consistent with the multilevel linear probability results.

Results

Figure 8 shows the bivariate scatterplots between penalties (x-axes) and prevalences (y-

axes).[23] Table 2 shows the multilevel models predicting each risk. The upper left panel in Figure

8 reveals a significant moderate positive correlation between the penalties and prevalences of

young headship (r=.37), contrary to the expected negative relationship. For example, Norway

and Denmark have high prevalences and high penalties for young headship. In the first model of

Table 2 (for all individuals), the country-level penalty for young headship is positively signed

but not quite significant (z=1.72). In the second model (restricted sample), the country-level

penalty is significantly positively associated with young headship (z=3.4). Thus, the prevalence

of young headship is surprisingly higher in contexts with a high penalty for young headship.

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[21] 4,248 is the smallest within country sample (Belgium). In Belgium, we select all cases. Again, the samples include those residing in HHs lead by someone under 65.

[22] In other analyses, we estimated the second restricted models while retaining all cases from every country. Like the results presented, we fail to find significant negative effects for the country-level penalties. This suggests the smaller sample did not lead to type II errors.

[23] The horizontal and vertical lines in these figures identify the means in each axis.

[FIGURE 8 ABOUT HERE]

[TABLE 2 ABOUT HERE]

The upper right panel in Figure 8 shows a weak negative relationship between the penalty and prevalence of single motherhood (r=-.18). The correlation is quite weak as countries with a low prevalence of single motherhood include countries with low (Slovakia, Slovenia), moderate (Greece) and high (Japan) penalties. Countries with a high prevalence of single motherhood include low (U.K.), moderate (Ireland) and high (U.S.) penalty countries. The multilevel models provide no evidence of negative effects of country-level penalties for single motherhood. Table 2 shows that in both the broader (z=-.68) and more restricted sample (z=-.71), the coefficients are far from significant.

The lower left panel in Figure 8 shows a moderate negative association between the penalties and prevalences of low education (r=-.24). This is the strongest negative association of the four risks, but even this is insignificant. For example, the U.S. has the highest penalty for low education and a below average prevalence of low education HHs. By contrast, Belgium, Ireland, and Iceland have low penalties and above average prevalences of low education HHs. The multilevel models do not demonstrate a significant negative effect of penalties for low education. The coefficients are negatively signed but insignificant in the broader (z=-1.22) and restricted samples (z=-1.42). Therefore, the evidence for the negative association between the penalties and prevalences of young headship is not strong.

The lower right panel shows a weak negative relationship between the penalty for unemployment and the prevalence of unemployment (r=-.11). Australia, Canada, and Japan have very high penalties for unemployment but exhibit medium and low prevalences of

unemployment. In the multilevel models for both the broader (z=.18) and restricted (z=.44) samples, the coefficient for the country-level penalty is insignificant.[24]

In sum, Figure 8 and Table 2 provide little evidence that high penalties discourage high prevalences of risks in a way that would substantially bias our other results. Several countries have both low penalties and low prevalences, or high penalties and high prevalences. There is very little evidence that countries with lower penalties have a greater prevalence of risks.

CAN WELFARE GENEROSITY EXPLAIN VARIATION IN PENALTIES?

The preceding analyses suggest penalties vary more cross-nationally than prevalences, and are more salient to poverty than prevalences. Given this conclusion, the next question is why penalties vary cross-nationally. In the poverty literature, one leading explanation for cross-national differences focuses on welfare state generosity (Brady 2009; Brady and Bostic 2015; Korpi and Palme 1998; Rainwater and Smeeding 2004). While welfare generosity cannot explain all cross-national variation in poverty, there is evidence that social policies moderate the penalties attached to risks (Brady and Burroway 2012; Cohen 2015; DiPrete 2002; DiPrete and McManus 2000; Gornick and Jäntti 2012; Rainwater and Smeeding 2004). Of course, cross-national variation in penalties is likely driven by several factors. We focus on welfare generosity as only one plausible explanation that emerges from the poverty literature.

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[24] As noted above, unemployment is more cyclical than the other risks. We could control for country-level measures of the business cycle, and unsurprisingly, these measures predict individual-level unemployment. However, when doing so, the penalty for unemployment is still not significantly negative.

We use the same pooled multilevel sample and all individual-level variables as in the

prior section.[25] Like previous sections, the models are multilevel linear probability models,

although Appendix VI confirms the results are similar if we use multilevel logistic regression.

We first estimate a random intercept model with the country-level variable *transfer share*. This is

calculated as the percent of disposable equivalized HH income that comes from public welfare

transfers (Brady and Bostic 2015).[26] Similar cross-national analyses demonstrate the transfer

share effectively measures welfare generosity and strongly predicts poverty (Brady and Bostic

2015; Brady and Burroway 2012; Korpi and Palme 1998). The random intercept is also a

function of the country-level *unemployment rate*, because the country-years vary in terms of

economic performance and the business cycle (Brady and Jäntti 2016). Next, we estimate four

random coefficients models. Each model allows one of the four risk coefficients to vary across

countries and includes a cross-level interaction with transfer share. These models test if transfer

share significantly interacts with each risk's coefficient, and assess whether a country's welfare

generosity moderates a risk's penalty.[27]

Table 3 displays the results. Model 1 is the random intercept model with no random

coefficients. All four risks are significant. Unemployment has the largest penalty (.26). The next

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[25] Rather than the balanced sample of 4,248 per country, Appendix VII shows the models
including all cases and weighting countries equally to balance the N's across countries
(N=1,253,894). All of the conclusions are consistent with this alternative sample.
[26] Transfers are based on the LIS measures of total government assistance received as cash and
near cash transfers (including monetary social insurance, monetary universal transfers, and
[monetary and non-monetary] social assistance). Transfers and income are equivalized by
dividing by the square root of the number of HH members.
[27] An alternative modeling strategy includes country fixed effects, and interactions between
transfer share and each risk, while omitting the main effect of transfer share. This fixed effect
strategy controls for other unobserved differences between countries (Möhring 2012). In linear
probability models with robust standard errors, we find that transfer share interacts significantly
negatively with unemployment, low education, and single motherhood, but interacts significantly
positively with young headship.

largest penalty is for young headship (.12), followed by low-education (.06). The smallest

penalty is for single motherhood (.04). These four risks have the largest penalties of all variables

– larger than the positive effects of being in a female- or male-head no child HH, being in a HH

headed by a 25-34 year old, and each additional child.

[TABLE 3 ABOUT HERE]

In this random intercept model, the country-level variable transfer share is significantly

negative. For a standard deviation greater transfer share, the probability of poverty is lower by

2.3 percentage points. This is a larger effect than the effect of the unemployment rate. The

difference between the minimum transfer share (South Korea) and the U.S. is associated with a 6

percentage point lower probability of poverty. The difference between the U.S. and the mean

transfer share is associated with a 2 percentage point lower probability of poverty. The difference

between the U.S. and the maximum transfer share (Denmark) is associated with a 5.5 percentage

point lower probability of poverty. Though a coefficient of -.023 may seem modest, recall the

mean poverty rate is 9.3 percent. Therefore, a standard deviation difference in the transfer share

for the mean country is associated with a 25 percent reduction in the mean poverty rate.

On one hand, a standard deviation increase in the transfer share would make a smaller

difference to poverty than an individual-level binary change in any of the four risks. This

suggests risks are salient to poverty. On the other hand, it is more appropriate to compare a

standard deviation in the transfer share to a standard deviation in the country-level prevalence of

risks. The latter captures the existing cross-national variation in the prevalences of risks. Figure 9

displays a comparison of how much poverty would be expected to decline given these various

counterfactual standard deviation changes as well as a few other counterfactuals. As Figure 9

reveals, a standard deviation higher transfer share is associated with a much larger decline in

poverty than a standard deviation reduction in the prevalence of each of the four risks.[28] U.S. poverty would be lower with a standard deviation higher transfer share than with the cross-national median prevalence of any or all risks, or the 1970 prevalence of single motherhood. In fact, a standard deviation increase in transfer share would reduce poverty by a factor 2.5 times larger than a standard deviation reduction in the prevalence of unemployment, 3.8 times larger than a reduction in low education, 23 times larger than a reduction in single motherhood, and 11.5 times larger than a reduction in young headship.

[FIGURE 9 ABOUT HERE]

The second model in Table 3 includes a random coefficient for unemployment and a cross-level interaction of unemployment and the transfer share. The main effect of unemployment remains significant. Also, the other three risks and the transfer share remain significant. The interaction of unemployment and the transfer share is significantly negative. For a standard deviation higher transfer share, the penalty for unemployment is smaller by 8.6 percentage points. This is a substantial reduction in the penalty for unemployment.

The third model includes a random coefficient for low education, which is significantly negative. For a standard deviation increase in the transfer share, the positive coefficient for low education declines by 3.6 points. The main effects of low education and transfer share also remain significant. The fourth model includes a random coefficient for single motherhood. While the main effects of single motherhood and transfer share remain significant, the cross-level

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[28] The cross-national standard deviations in the prevalences are .035 for unemployment, .100 for low education, .023 for single motherhood, and .020 for young headship. Using the coefficients in Table 3 model 1, the impacts of a standard deviation change are for unemployment (.035*.263=.009), low education (.100*.065=.006), single motherhood (.023*.038=.001), and young headship (.020*.117=.002). In addition, a standard deviation decline in the country-level unemployment rate would reduce poverty (.015) by much more than standard deviation changes in the prevalences of risks.

interaction is not significant. Therefore, transfer share does not significantly moderate the penalty for single motherhood. Finally, the last model includes a random coefficient for young headship. The main effects of young headship and the transfer share are significant, but the cross-level interaction is insignificant and positively signed. Thus, the transfer share does not alleviate the penalty attached to young headship.

DISCUSSION

This article has three main goals. First, we develop a "prevalences and penalties framework" for analyzing and comparing the risks of poverty. Second, we apply this framework to poverty in the U.S. Third, we analyze the cross-national variation in prevalences and penalties. This section reviews the conclusions, discusses potential limitations, and concludes with three broader implications for poverty research.

Conclusions

Our framework defines the risks of poverty in terms of prevalences (share of the population with a risk) and penalties (increased probability of poverty associated with a risk). Using LIS data on 29 rich democracies, we compare the prevalences and penalties of the four major risks (low education, single motherhood, young headship, and unemployment). The poverty literature has devoted much more attention to prevalences than penalties. Nevertheless, there is greater cross-national variation in penalties than prevalences for three of four risks. In many countries, penalties are insignificant, while in others, penalties are quite large. In general, unemployment has the largest penalty.

Despite having unusually high poverty, the U.S. has below average prevalences of risks. It is worth recollecting that the poverty literature often frames the prevalences of risks as a matter

of choice, behavior, or culture. Scholars routinely ask why the poor fail to get married, why they do not complete their educations, and why they do not work. Given the U.S. actually has below average prevalences of risks, our results show U.S. residents tend to make fewer such choices and engage in fewer such behaviors than those in other rich democracies. If every country has a share of its population making problematic choices and engaging in problematic behavior, the more appropriate question is why so *few* U.S. residents do so. Indeed, the below average prevalence of risks in the U.S. presents an intriguing topic for future research. However, this finding cuts against the grain of research on the risks of poverty in the U.S., which often conveys the impression of high prevalences. This is especially the case for the literatures on welfare reform, fragile families, and culture of poverty, which plausibly results from these literatures not engaging sufficiently with the international poverty literature.

In contrast to its below average prevalences, the penalties for risks in the U.S. are the highest of 29 countries. An individual with all four risks has an extremely heightened probability of being poor in the U.S. Recall Sawhill (2003: 83) wrote: "Those who graduate from high school, wait until marriage to have children, limit the size of their families, and work full-time will not be poor." In the U.S., we suggest a more correct claim would be: "Those who do *not* graduate from high school, do *not* wait until marriage to have children, do *not* wait until 25 to head a HH, and do *not* work will likely be poor."

A series of counterfactual simulations reveal U.S. poverty would be lower if it had cross-national median penalties. However, with the exception of single motherhood, U.S. poverty would not be lower if it had cross-national median prevalences. Also, U.S. poverty in 2013 would actually be higher with historical prevalences from 1970 or 1980. It is important to qualify these counterfactual simulations by noting that none of the simulations produce dramatically

lower U.S. poverty. Even if the U.S. had cross-national median penalties for all four risks – the simulation that would produce the biggest decline – the U.S. would still have a poverty rate of 13 percent. This would still be the third highest poverty rate among the 29 rich democracies.

We find little evidence of the expected negative relationship between penalties and prevalences. Neither country-level bivariate correlations nor multilevel models suggest high penalties discourage high prevalences in ways that would profoundly influence our other results. The only potential exception is the moderate negative correlation between the penalty for low education and its prevalence. However, the coefficient for the country-level penalty is not significant in the multilevel models. The evidence suggests it is feasible for countries to have low penalties for risks and not experience high prevalences.

We also demonstrate that welfare generosity significantly moderates the penalty for two risks (unemployment and low education). In generous welfare states, the penalties for unemployment and low education are much weaker. That said, generous welfare states do not reduce the penalties for single motherhood or young headship. These results are consistent with the dualization literature (Emmenegger et al. 2011; Rovny 2014). The dualization literature contends that social policies create groups of insiders and outsiders. While generous welfare states alleviate poverty for the average citizen and "old risk groups" like unemployed or less skilled men, welfare states might not manage "new risks" like single motherhood and youth insecurity. Therefore, welfare generosity is not a panacea for managing the risks of poverty, nor is it the only factor explaining variation in penalties.

Potential Limitations

At least two potential limitations of this study warrant discussion. First, one neglected but potentially salient factor for the variation in penalties is race. Racial division likely contributes to

the prevalence of risks and to the low transfer share in the U.S. However, race is an ascriptive

characteristic, cannot be measured reliably cross-nationally in the LIS, and is beyond the scope

of our study (see footnote 2). It is plausible that the unusually high penalties in the U.S. result

partly from disadvantages against Blacks and Latinos. In Appendix II, we consider the

implications of this for our conclusions. As the third model shows, Blacks have about 8

percentage points higher probabilities of being poor, and Latinos have about 6 percentage points

higher probabilities of poverty. These differences are smaller than the penalties for the four

major risks. More importantly, including race/ethnicity indicators in the model does not

substantively change the estimates of the penalties for the risks. Therefore, we can reasonably

compare the U.S. penalties with other countries even if we omit race/ethnicity. The fourth model

shows the penalties for unemployment and single motherhood are significantly greater for Black

individuals. Similarly, the penalties for unemployment, low education, and single motherhood

are significantly greater for Latinos. However, the penalties are still large and statistically

significant for the reference group, non-Hispanic Whites. Therefore, racial disadvantage appears

to augment the penalties for risks, and contributes to the U.S. having unusually high penalties.

Second, it is important to consider whether causal identification would change our

conclusions. A lack of causality could pose a threat if causal identification meaningfully changed

(a) our estimates of penalties, and/or (b) the relationship between penalties and prevalences.

A lack of causal identification would have to trigger specific problems for our

conclusions to be wrong. If causal identification of the penalties produced more uniform

penalties, this could undermine our conclusion that variation in penalties is greater than in

prevalences. If causal identification produced uniformly higher penalties (e.g. the insignificant

penalties would all become significant and larger), this could undermine our claim that lower

prevalences would not be very consequential (e.g. in the counterfactual simulations). However, both of these scenarios seem unlikely. Country-specific omitted variables could make the variation in penalties even larger and could result in some countries penalties becoming even smaller and less significant. Further, causal identification would have to reveal penalties are truly unrelated to the transfer share. However, we see no reason that penalties are disproportionally overestimated in weak welfare states and underestimated in generous welfare states.

On the relationship between penalties and prevalences, it is unclear why/how our estimates of penalties would be systematically biased in a way that weakens their correlation with prevalences. That said, future research should extend our approach to modeling the penalties-prevelances relationship. We propose our estimation of penalties is a better way to measure disincentives than measuring the generosity of social policies. Future research could estimate the penalties in multiple LIS waves for each country. Then, one could predict individual-level prevalences as a function of country-level penalties while incorporating fixed effects for countries and time. This would control for stable differences between countries and generic change over time, and would provide a stronger test of the causal relationship between penalties and prevalences. That said, we still would highlight the prima facie cross-national descriptive patterns showing no relationships. If a causal effect of penalties on prevalences exists, there must be powerful or numerous countervailing forces overriding it. Also, the prima facie descriptive null relationships between penalties and prevalences should raise questions about the external validity of U.S.-based studies purporting to show welfare disincentives. If welfare disincentives are so powerful, a pressing question is why so many countries have low penalties and low prevalences or high penalties and high prevalences.

Broader Implications

Above, we mention several implications for poverty research. Although most concentrate on reducing prevalences, the U.S. has below average prevalences, and reducing prevalences would do little to reduce poverty. Even though research on the risks of poverty concentrates on prevalences, there is more cross-national variation in penalties than prevalences. Moreover, what makes the U.S. stand out is its unusually high penalties despite below average prevalences. Beyond these points, we propose three broader implications for poverty research.

First, a focus on risks is unlikely to provide a convincing explanation or effective strategy for poverty. Overall, our evidence shows that reducing risks would not lead to a large reduction in poverty. While an individual-level binary change in a risk is associated with a substantial difference in poverty, countries do not change from a prevalence of 0 to 1. Rather, the cross-national standard deviations in prevalences are a more realistic estimate of the existing cross-national variation in risks. Ultimately, we show this cross-national variation cannot explain most of the variation in poverty. Lowering prevalences by a standard deviation leads to a much smaller reduction in poverty than a standard deviation greater transfer share. Further, U.S. poverty would decline much less with cross-national median prevalences or historical prevalences than with greater welfare generosity. Because this existing variation in risks cannot explain most of the variation in poverty, this suggests risks might not be as crucial to poverty as is implied by the widespread interest in risks.

Second, single motherhood may be the least important risk. This is surprising as single motherhood has received the greatest attention among the four. In the U.S. and in the pooled cross-national sample, single motherhood has the smallest penalty of the four risks. Also, single motherhood has the smallest penalty of the four risks in 15 of the 29 countries. Of the four risks, the penalty for single motherhood is least likely to be significant – only significant in 13 of 29

countries. We demonstrate that the U.S. would not experience substantially lower poverty if it returned to 1980 or 1970 prevelances of single motherhood. Poverty would actually be worse if the U.S. returned to the 1980 prevalence as there was less single motherhood in 2013 than 1980. Poverty would only be a tiny bit lower in 2013 with the 1970 prevalence of single motherhood. These modest reductions partly result because the U.S. single motherhood prevalence of 8.8 is simply not as large a share of the population as is often portrayed.

Third, for general explanations of poverty, studies based solely on the U.S. are constrained by potentially large sample selection biases. Most of U.S. poverty research concentrates solely on the U.S. case, and this is especially true for research on risks (Brady and Burton 2016). Notably, the U.S. has had high poverty for several decades. In fact, the LIS reports unusually high U.S. poverty in every wave, all the way back to 1974. Observation at only one end of the distribution of the dependent variable is a well-known sample selection bias. By focusing solely on the U.S., researchers fail to observe where poverty is low, and this probably biases our impressions about risks and other causes of poverty.

Equally important, a sample selection bias occurs when observing only where the effect of an independent variable is especially pronounced (Allcott 2015). As an illustration of this point, imagine only sampling U.S. Whites to assess penalties. This would bias penalties downwards, and readers would surely agree such estimates are invalid. However, penalties based solely on Whites are much less biased relative to U.S. penalties, than U.S. penalties are relative to the cross-national median penalties.[29] Therefore, by studying the risks of poverty in the one

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[29] Whites' penalties relative to U.S. average penalties are 77 percent for low education, 95 percent for unemployment, 86 percent for single motherhood, and 94 percent for young headship. The cross-national median penalties relative to U.S. penalties are 27 percent for low education, 72 percent for unemployment, 36 percent for single motherhood, and 60 percent for young headship.

rich democracy with the largest penalties for risks, American poverty researchers have overstated the salience of risks.[30]

This is especially salient as the social sciences have become increasingly aware that studies based on the U.S. often do not generalize to other countries. In a vivid example, Henrich and colleagues (2010) document how experimental psychology based on W.E.I.R.D. (western, educated, industrialized, rich, democracies) fails to generalize to most of the world's population and countries. Moreover, they are especially critical of studies based solely on the U.S.: "Americans are, on average, the most individualistic people in the world" (p.74). Henrich and colleagues call for international comparison and greater sensitivity to the limitations of sampling solely in WEIRD countries and especially in the U.S.

We propose that American poverty research needs a similar correction (Brady and Burton 2016). By focusing so much attention on a country with unusually high poverty and the largest penalties for risks, the conventional wisdom in poverty research has led to an unrepresentative impression of the causes of poverty. Only by placing the U.S. in comparison with other countries, and by studying risks in a variety of contexts, can we fully understand the risks of poverty.

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[30] Similarly, it seems reasonable to hypothesize that U.S.-based studies of the benefits of marriage or education suffer from similar sample selection biases. Our evidence implies that the benefits of marriage or education could be overstated if only the U.S. is studied.

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Figure 1. Prevalences of the Four Risks of Poverty in 29 Rich Democracies (y-axis: percent of population).
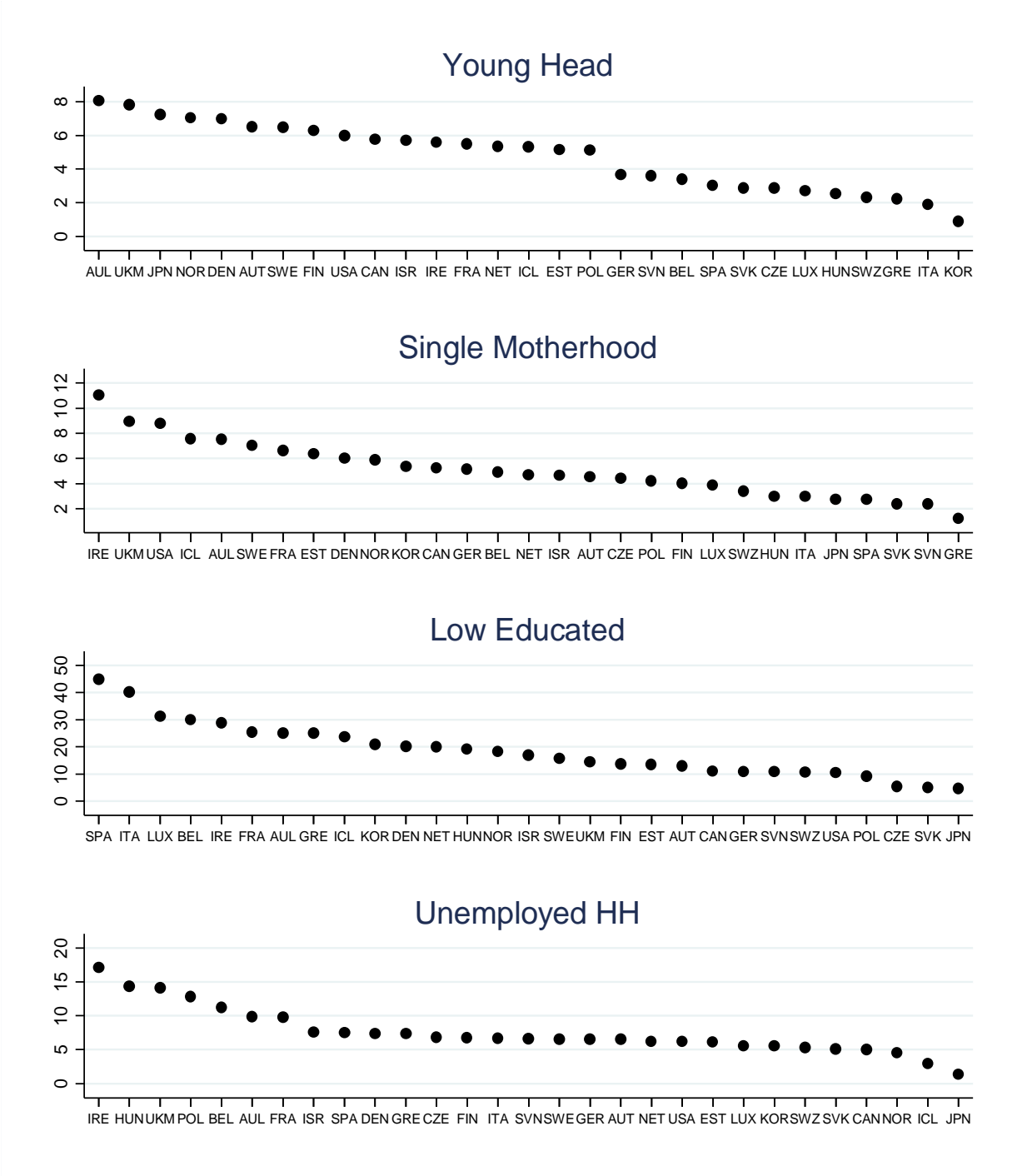
Figure 2. The Sum of Prevalences of Risks of Poverty in 29 Rich Democracies (x-axis: percent of population).

Legend:
- 4 Risks
- 3 Risks
- 2 Risk
- 1 Risk

Countries (top to bottom): SPA, ITA, IRE, BEL, AUL, FRA, LUX, UKM, HUN, DEN, ICL, GRE, SWE, NET, NOR, ISR, KOR, AUT, FIN, USA, POL, EST, CAN, GER, SVN, SWZ, CZE, JPN, SVK
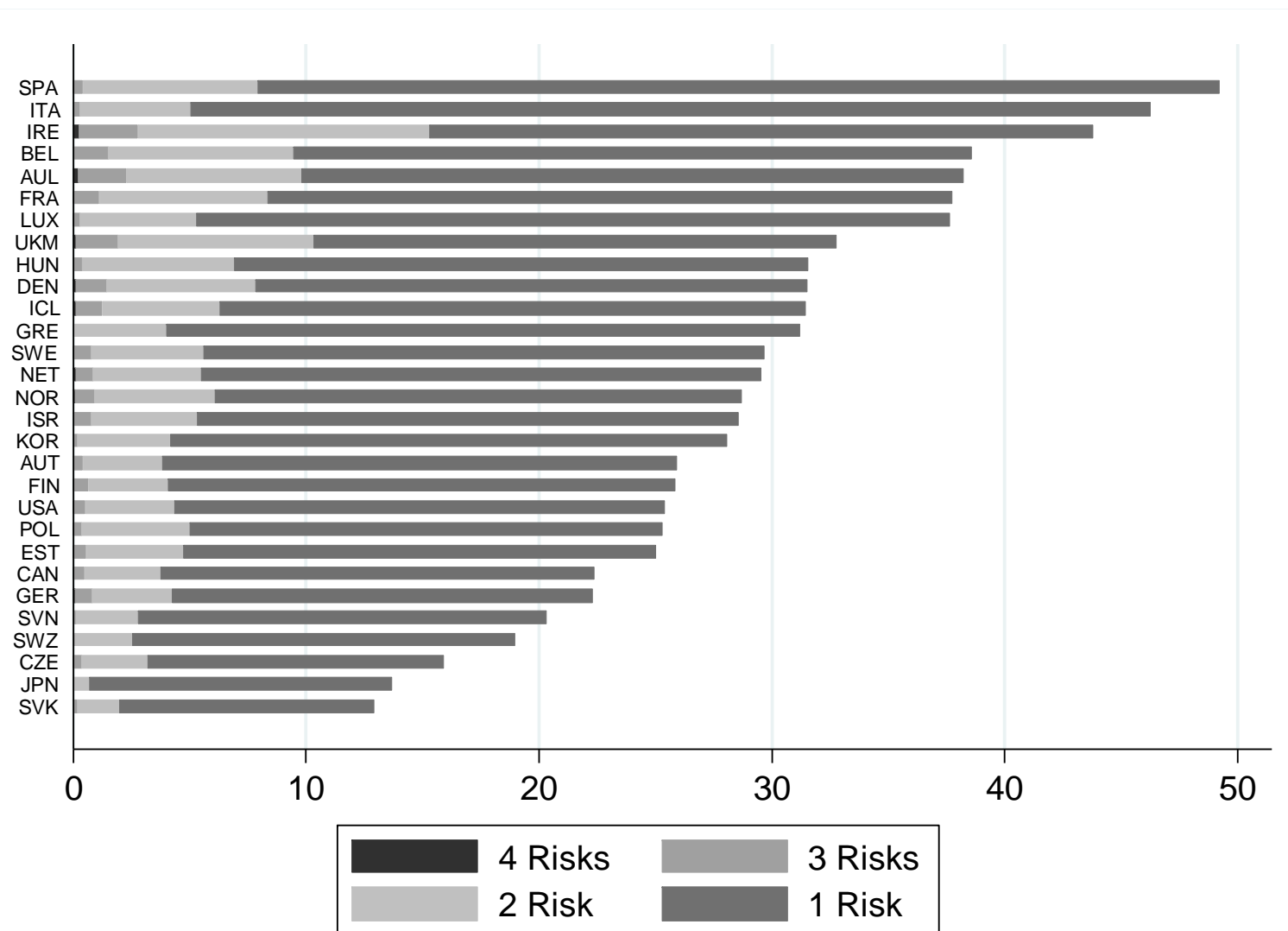
Figure 3. Penalties for the Four Risks of Poverty in 29 Rich Democracies (y-axis: increased probability of poverty).
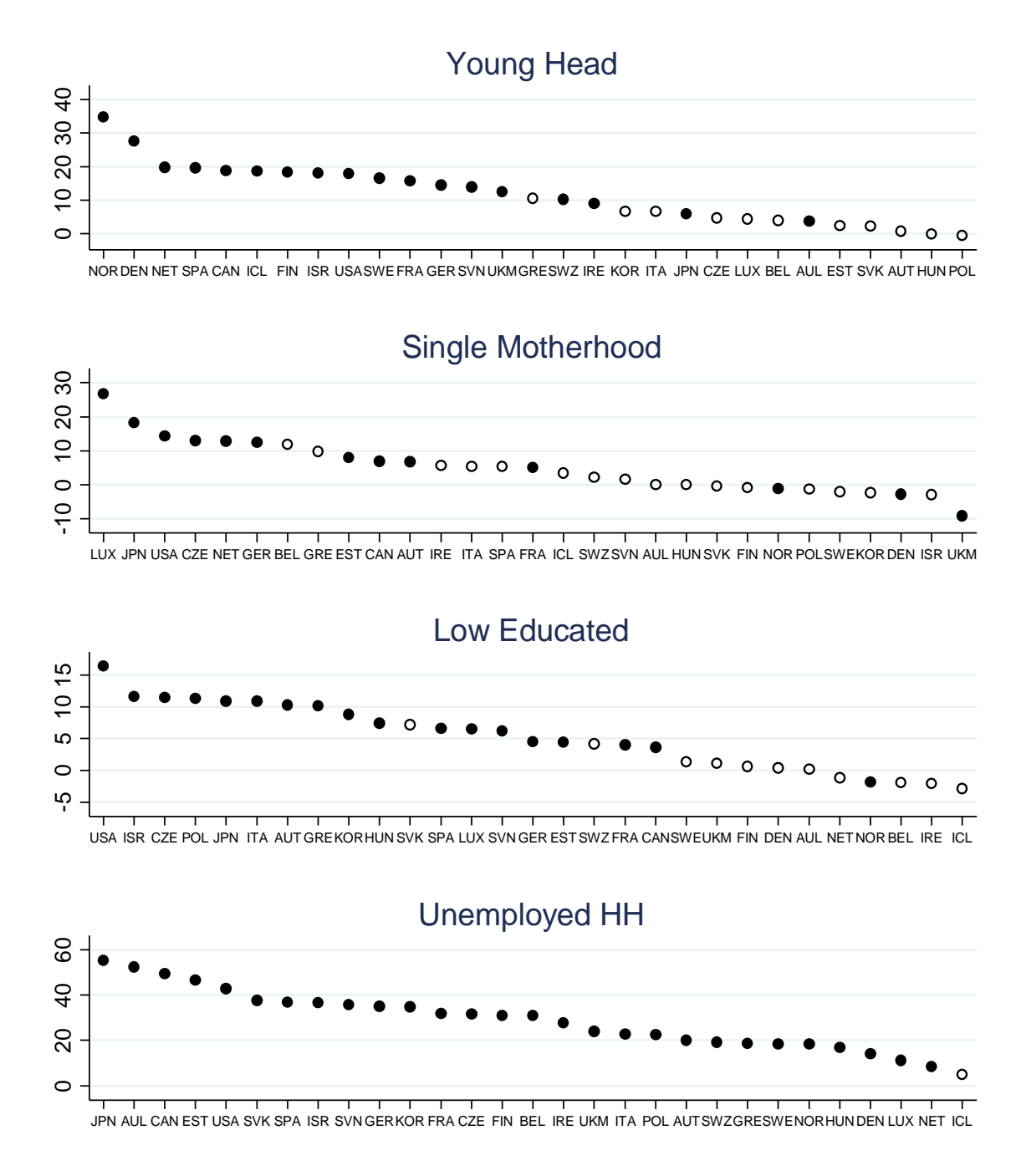
Figure 4. The Sum of Penalties for Four Risks of Poverty in 29 Rich Democracies (x-axis: increased probability of poverty).
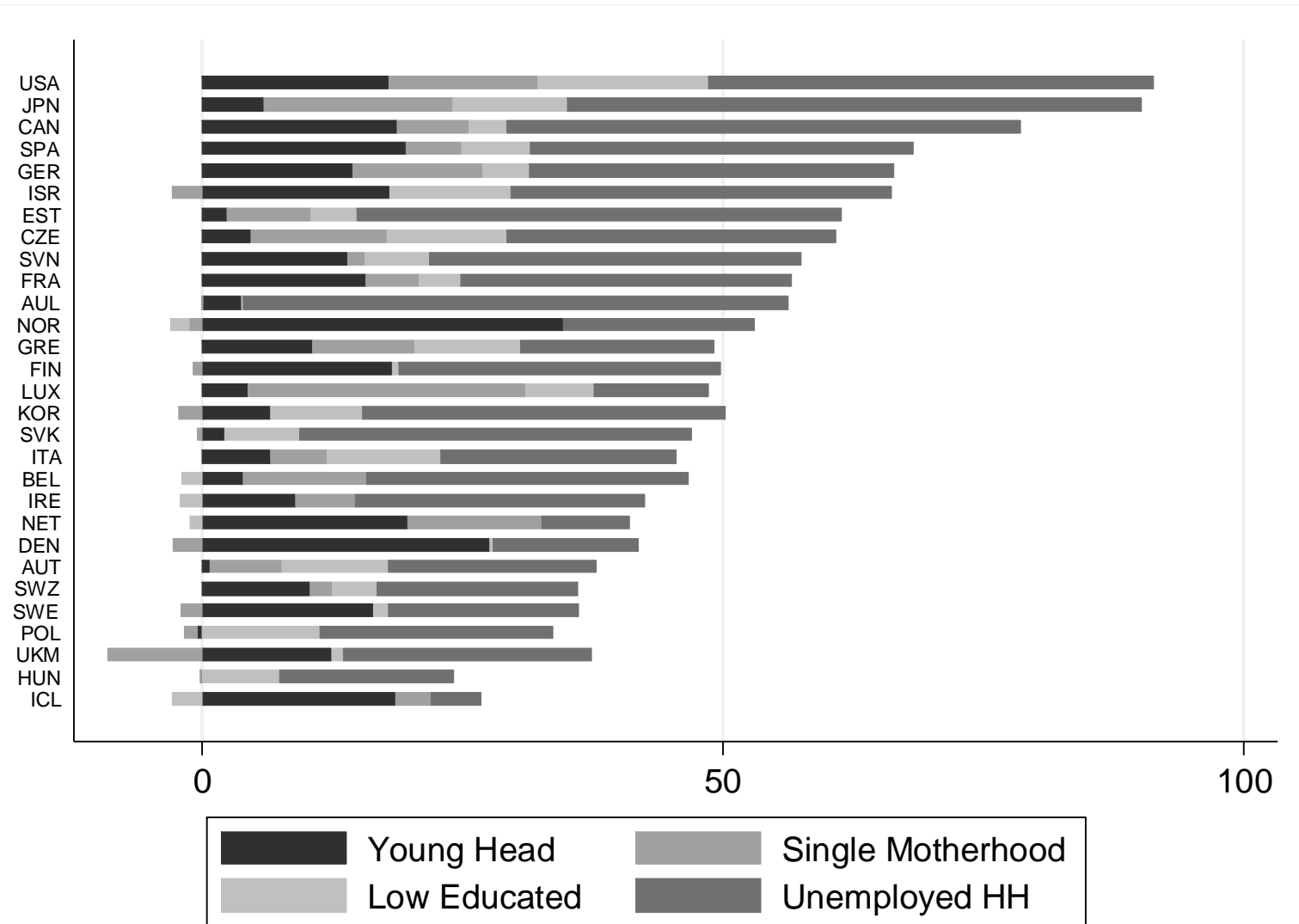
Table 1. Coefficients of Variation in Prevalences and Penalties for Risks of Poverty Across 29 Rich Democracies.

	Prevalences	*Penalties*
Young Head	.417	.742
Single Motherhood	.443	1.508
Low Educated	.536	.999
Unemployed HH	.461	.454

Figure 5. Kernel Density of Poverty Rates Across 29 Rich Democracies.

kernel = epanechnikov, bandwidth = 1.3782

Figure 6. Counterfactual Simulation of U.S. Poverty with Cross-National Median Prevalences and Penalties.

Figure 7. Counterfactual Simulation of U.S. Poverty with Prevalences from 1970 and 1980.

Figure 8. Correlations between Prevalences and Penalties of Poverty in 29 Rich Democracies (* p<.05).
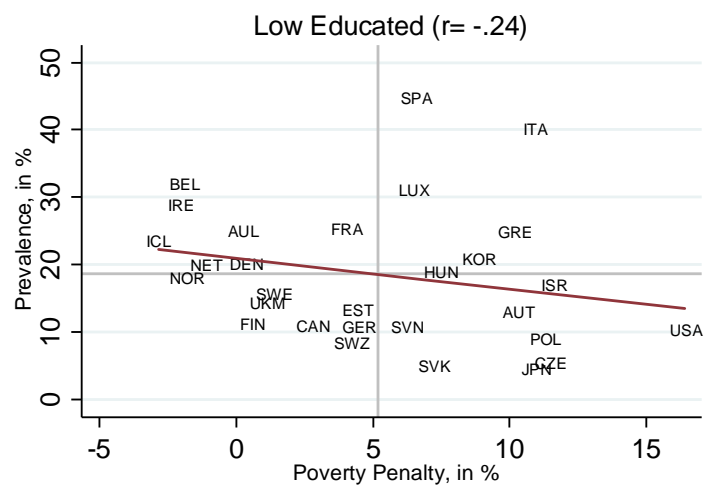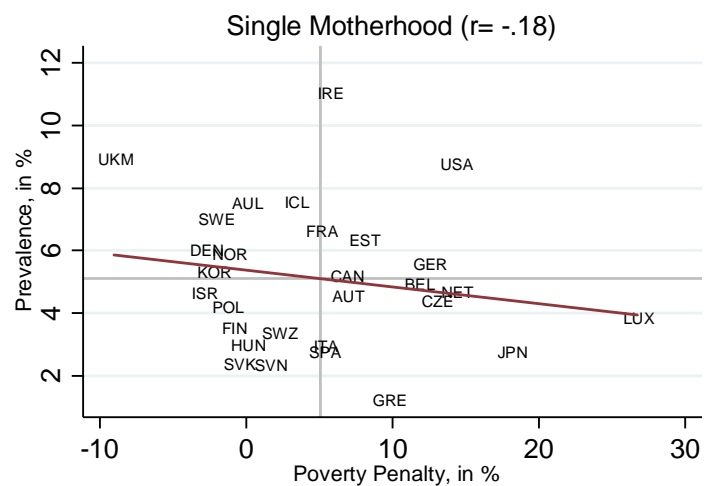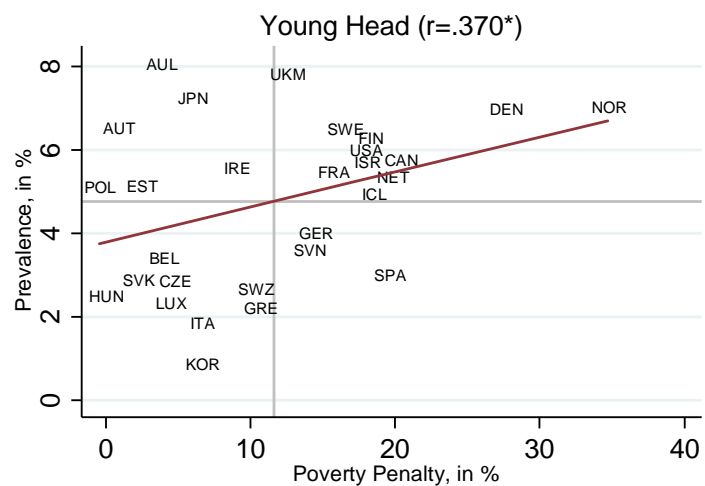
Table 2. Multilevel Linear Probability Models of Individual Risks in 29 Rich Democracies.

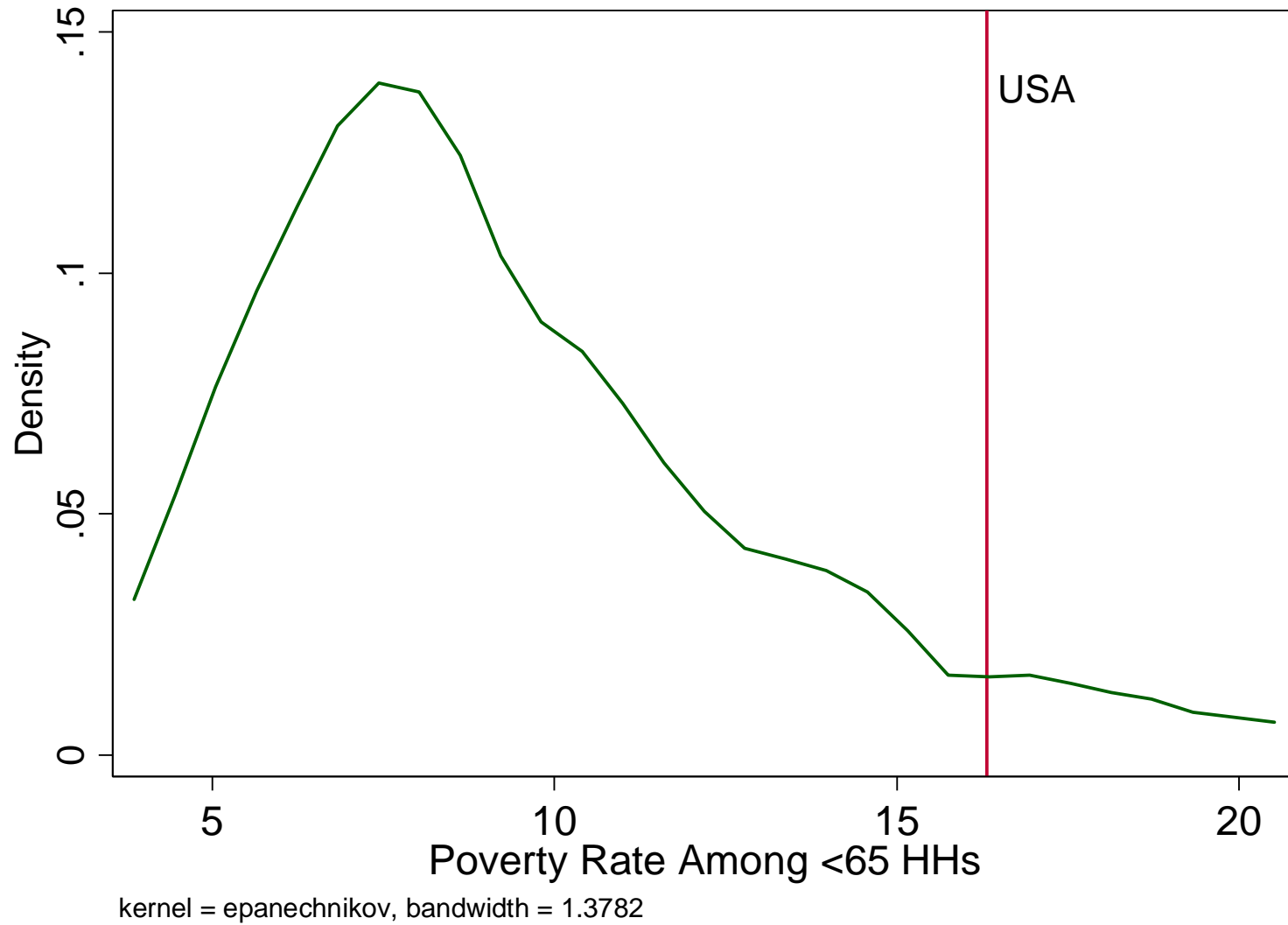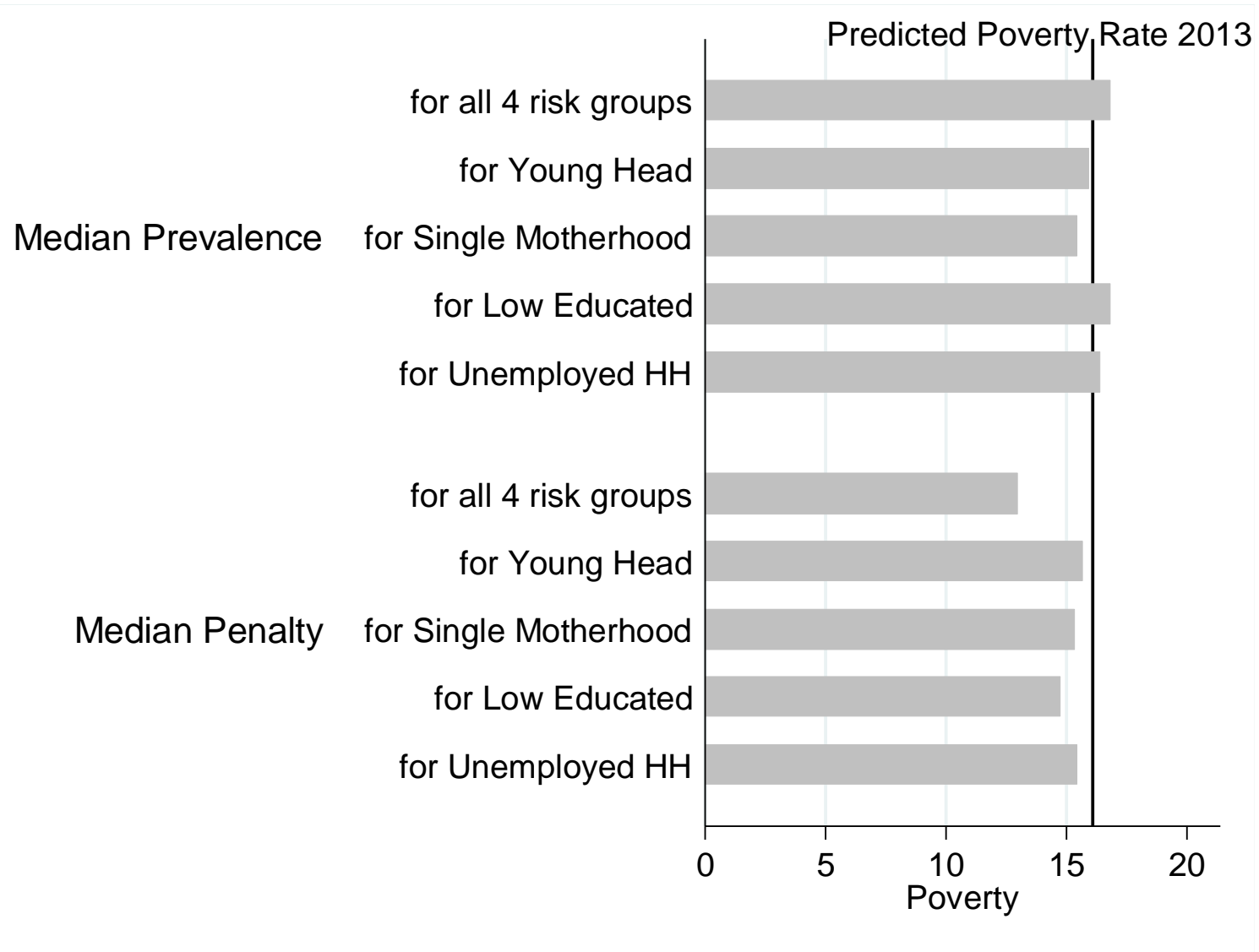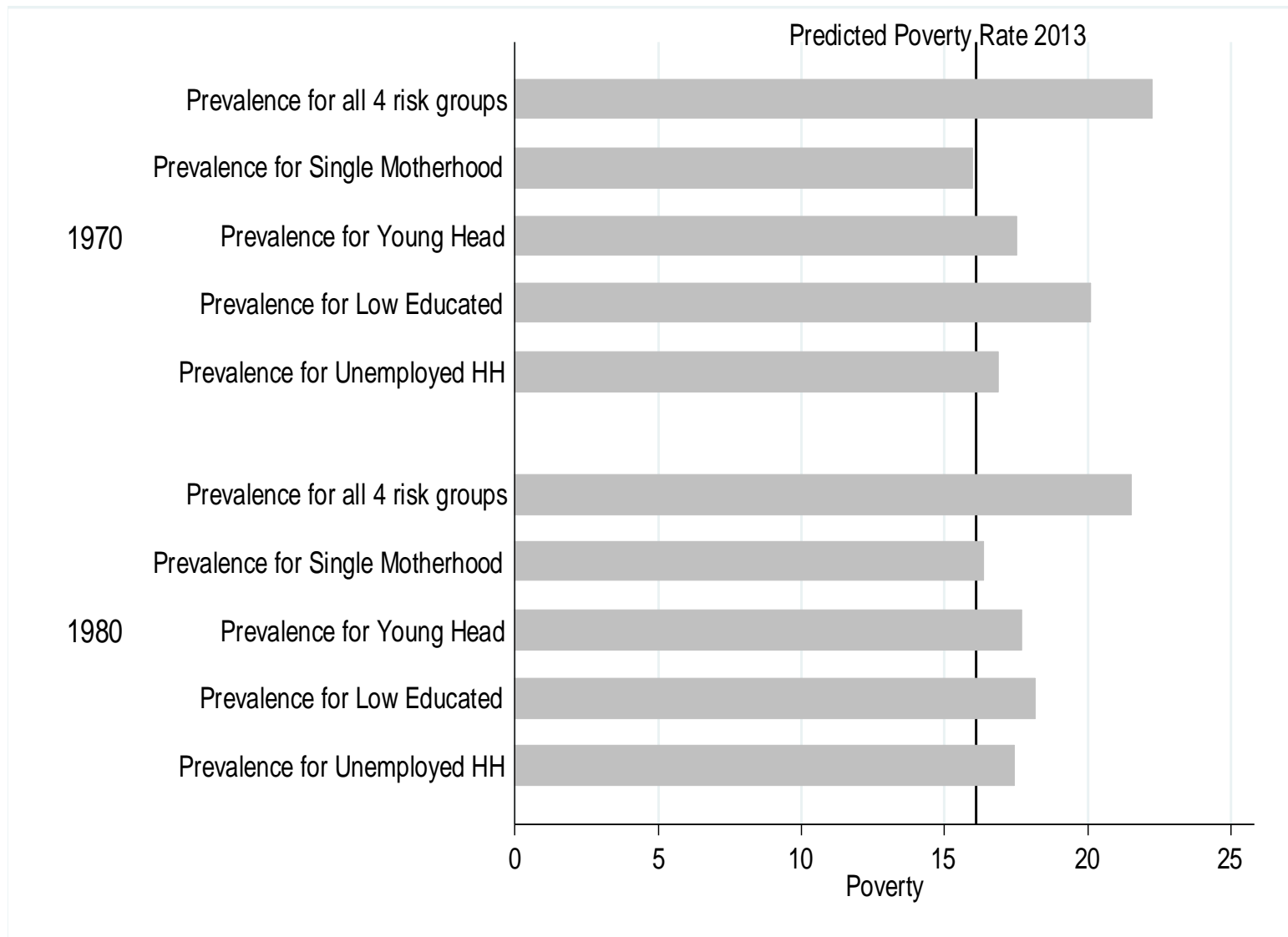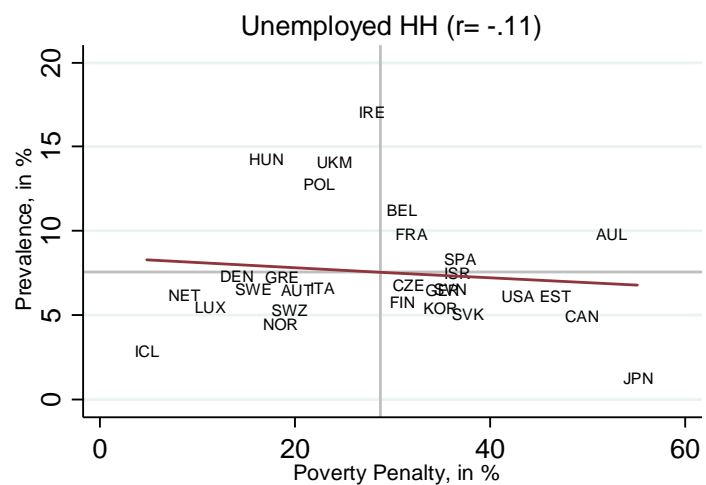|	*Young Head*	*Young Head*	*Single Mother HH*	*Single Mother HH*	*Low-Education Head*	*Low-Education Head*	*Unemployed HH*	*Unemployed HH*
Penalty for Risk	.067 (1.72)	.718** (3.40)	-.034 (-.68)	-.139 (-.71)	-.350 (-1.22)	-.487 (-1.42)	.010 (.18)	.022 (.44)
Eligible Sample	All Individuals in Working-Age HHs	18-24 Year Olds Without High Education	All Individuals in Working-Age HHs	All Children + Women 18-54, Excluding Multiple Earner HHs	All Individuals in Working-Age HHs	Adults 25-54, Excluding Multiple Earner HHs	All Individuals in Working-Age HHs	Adults 25-54 Without High Education
Unemployed HH	-.028*** (-11.82)	-.021 (-.51)	.103*** (5.64)	.189*** (9.21)	.190*** (14.37)	.235*** (13.85)		
Young Head			.023* (2.48)	.002 (.09)	.067** (2.83)	.097* (2.54)	-.014 (-1.53)	-.076*** (-7.25)
Low-Educated Head	.0004 (.25)	-.036 (-1.45)	.001 (.28)	-.030* (-2.33)			.080*** (7.94)	.076*** (7.32)
Single Mother HH	.050*** (18.13)	.090* (2.50)			.014 (1.05)	-.024 (-1.39)	.220*** (8.72)	.229*** (9.12)
Head 25-34			.001 (.18)	.015 (1.15)	-.028* (-2.44)	-.058*** (-4.48)	-.004 (-.78)	-.014*** (-2.79)
Head >54			-.065*** (-9.54)		.075*** (4.22)	.074** (2.71)	.162*** (8.82)	.113*** (5.17)

Table 2
Continued…

Female Head No Children	.078*** (32.42)	.219*** (10.55)			-.014 (-1.14)	-.031 (-1.72)	.135*** (13.65)	.122*** (9.45)
Male Head No Children	.079*** (30.60)	.397*** (15.96)			.002 (.25)	-.010 (-.71)	.132*** (10.84)	.132*** (9.10)
# Children	-.009*** (-17.35)	-.022** (-2.73)	.019*** (5.39)	.022** (3.02)	.014* (2.23)	.018* (2.09)	.014*** (6.32)	.010*** (4.26)
# >65	-.010*** (-6.20)	.020 (1.10)	-.013*** (-4.29)	-.032** (-3.26)	.020** (2.78)	.002 (.18)	-.044*** (-4.44)	-.039*** (-3.93)
High-Educated Head	-.039*** (-29.49)		-.009* (-2.37)	-.028 (-1.92)			-.031*** (-7.18)	
Multiple Earner HH	.008*** (5.64)	-.149*** (-5.39)	-.081*** (-11.38)		-.047*** (-3.40)			
Constant	.044*** (7.76)	.259*** (5.68)	.088*** (11.82)	.159*** (9.61)	.195*** (10.76)	.218*** (9.88)	.003 (.14)	.004 (.27)
N	123,192	9,069	123,192	24,755	123,192	20,511	123,192	37,847

** p<.01   * p<.05

Note: The numbers in parentheses are z-scores. All models estimated with robust standard errors. For logistic regression results, see Appendix V.

Table 3. Multilevel Linear Probability Models of Poverty in 29 Rich Democracies (N=123,192).

	Random Intercept	*Random Slope: Unemployed*	*Random Slope: Low-Educated*	*Random Slope: Single Motherhood*	*Random Slope: Young Head*
Unemployed HH	.263***	.275***	.264***	.265***	.264***
	(-10.66)	(12.13)	(-10.72)	(-10.86)	(-10.68)
Low-Educated	.065***	.064***	.064***	.064***	.064***
	(-4.6)	(-4.71)	(6.11)	(-4.62)	(-4.51)
Single Motherhood	.038*	.033	.038*	.042**	.039*
	(-2.11)	(-1.95)	(-2.14)	(3.10)	(-2.16)
Young Head	.117***	.118***	.120***	.119***	.105***
	(-5.74)	(-5.79)	(-5.65)	(-5.83)	(6.26)
Transfer Share	-.023***	-.016**	-.016*	-.021***	-.024***
	(-3.49)	(-3.26)	(-2.39)	(-3.76)	(-3.63)
Cross-Level Interaction with Transfer Share		-.086**	-.036***	-.022	.022
		(-2.79)	(-4.12)	(-1.23)	(-1.49)
Multiple Earner HH	-.102***	-.102***	-.102***	-.102***	-.100***
	(-9.94)	(-10.02)	(-10.52)	(-9.78)	(-9.86)
High-Educated	-.033***	-.033***	-.034***	-.033***	-.033***
	(-6.09)	(-6.23)	(-6.51)	(-6.15)	(-6.10)
Female-Head No Children	.013	.013*	.012	.013	.013
	(-1.91)	(-2.10)	(-1.78)	(-1.87)	(-1.92)
Male-Head No Children	.018*	.019**	.019*	.018*	.018*
	(-2.40)	(-2.67)	(-2.51)	(-2.33)	(-2.44)
Head 25-34	.017***	.016**	.018***	.017***	.017***
	(-3.34)	(-3.13)	(-3.42)	(-3.42)	(-3.35)
Head >54	-.037***	-.035***	-.039***	-.037***	-.036***
	(-5.08)	(-4.93)	(-5.88)	(-5.07)	(-5.02)
# of Children	.019***	.018***	.018***	.019***	.020***
	(-3.62)	(-3.52)	(-3.79)	(-3.67)	(-3.66)
# > 65 in HH	-.044***	-.043***	-.044***	-.044***	-.044***
	(-5.58)	(-5.65)	(-5.52)	(-5.55)	(-5.60)
Unemployment Rate	.015***	.013***	.012***	.015***	.016***
	(-4.36)	(-3.93)	(-3.43)	(-4.49)	(-4.85)

*** p<.001   ** p<.01   * p<.05

Note: The numbers in parentheses are z-scores. All models estimated with robust standard errors. For logistic regression results, see Appendix V. For a replication of these models while retaining all cases and weighting countries to balance the Ns across countries, see Appendix VI.

Figure 9. Counterfactual Reductions in the Probability of Poverty Associated with a Standard Deviation Increase in Transfer Share, a Standard Deviation Reduction in Prevalences, or Median or 1970 U.S. Single Motherhood Prevalences.
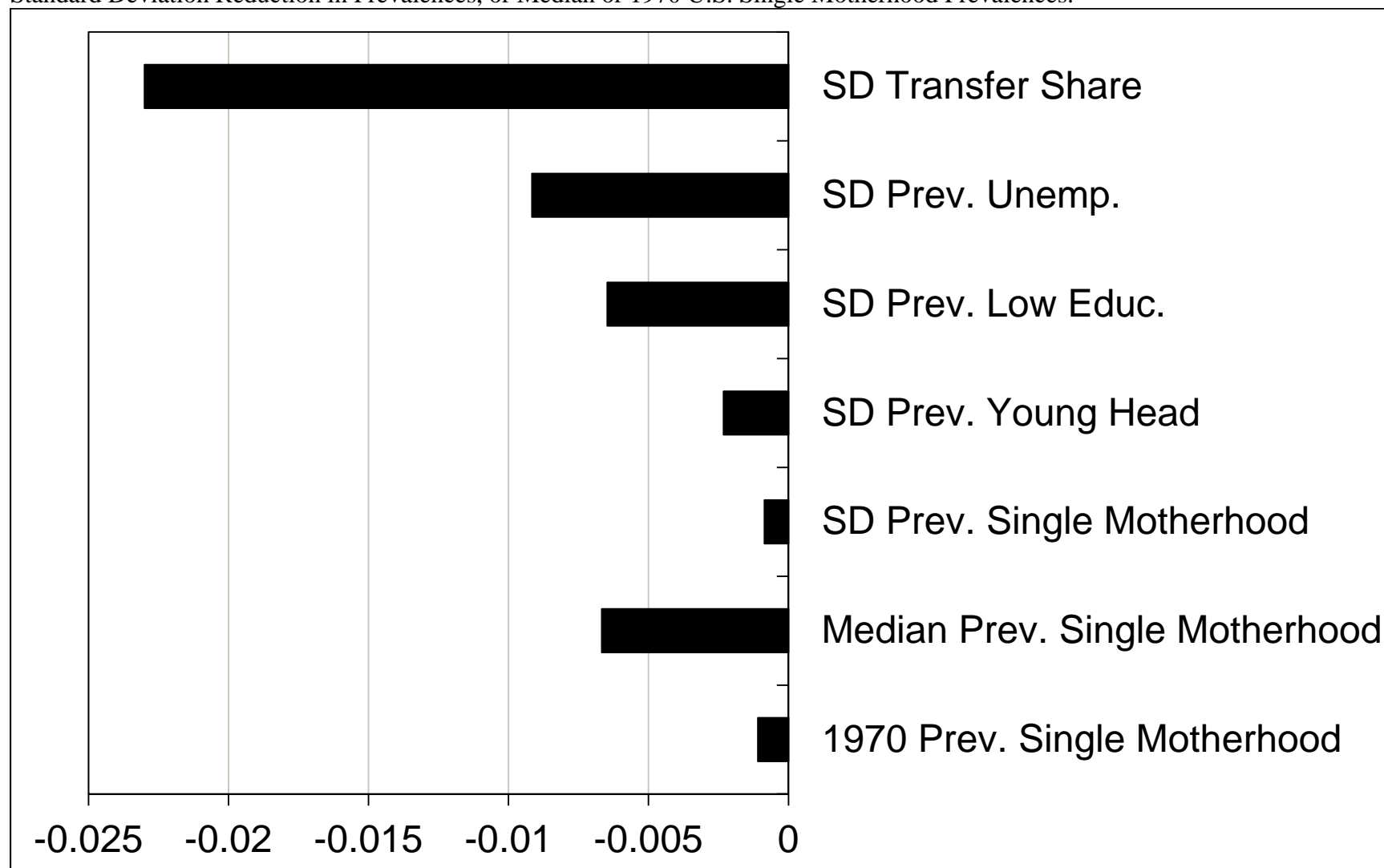
Appendix I. Comparison of Penalties: Coefficients from Linear Probability Models and Average Marginal Effects from Logit Models for Four Risks in 29 High Income Democracies.
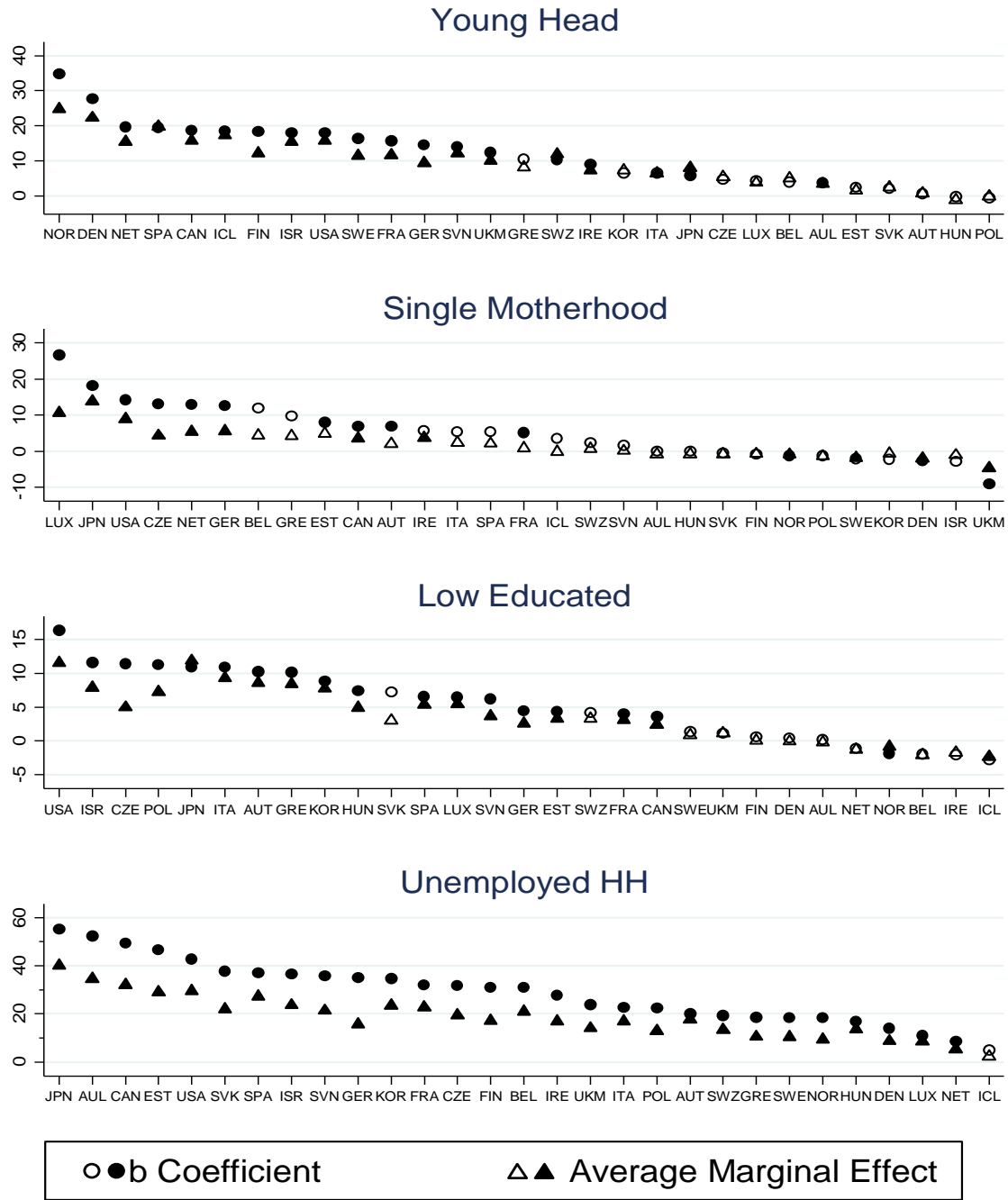
Note: Filled marker symbols are statistically significant at the 5%-level, and hollow marker symbols are insignificant.

Appendix II. Linear Probability and Logistic Regression Models of Poverty in U.S. in 2010 (N=122,257).

	Linear Probability: Coefficients and (T-Scores)	Logistic Regression: AMEs and (Z-Scores)	Linear Probability, With Race: Coefficients and (T-Scores)	Linear Probability, With Race and Race*Risk: Coefficients and (T-Scores)
Unemployed HH	.427***	.296***	.425***	.394***
	(-41.14)	(26.19)	(-41.18)	(-27.86)
Young Head	.179***	.159***	.177***	.172***
	(-15.48)	(15.12)	(-15.37)	(-12.24)
Low-Educated Head	.164***	.115***	.146***	.121***
	(-17.69)	(15.47)	(-15.39)	(-8.12)
Single Motherhood	.143***	.090***	.126***	.090***
	(-13.51)	(11.30)	(-11.89)	(-6.67)
Head 25-34	.051***	.042***	.049***	.048***
	(-9.64)	(8.13)	(-9.33)	(-9.22)
Head >54	-.008	-.014*	-.004	-.005
	(-1.50)	(-2.51)	(-.86)	(-.91)
Female Head No Children	.044***	.055***	.038***	.038***
	(-5.75)	(7.69)	(-4.89)	(-4.99)
Male Head No Children	.002	.019	-.0004	.001
# Children	(-.22)	(2.85)	(-.05)	(-.08)
#<17	.019***	.018***	.017***	.017***
	(-9.44)	(9.70)	(-8.59)	(-8.37)
# >65	-.033***	-.040***	-.036***	-.036***
	(-6.13)	(-5.15)	(-6.75)	(-6.73)
High-Educated Head	-.086***	-.099***	-.079***	-.080***
	(-22.40)	(-23.94)	(-20.32)	(-20.63)
Multiple Earner HH	-.162***	-.168***	-.160***	-.161***
	(-31.97)	(-33.15)	(-31.91)	(-32.13)
Black			.080***	.058***
			(11.11)	(-7.61)
Latino			.062***	.048***
			(10.51)	(-7.74)

Asian		.029***	.029***
		(3.62)	(-3.58)
Other		.034**	.038***
		(3.32)	(-3.78)
Black*Unemployed HH			.081***
			(3.59)
Latino*Unemployed HH			.091***
			(4.09)
Black*Young Head			.057
			(1.67)
Latino*Young Head			-.014
			(-.55)
Black*Low-Educated			.026
			(.83)
Latino*Low-Educated			.043*
			(2.24)
Black*Single Motherhood			.067**
			(2.82)
Latino*Single Motherhood			.056*
			(2.31)
Constant	.198***	.176***	.183***
	(30.86)	(27.54)	(28.70)
R^2	.292	.309	.309

*** p<.001   ** p<.01   * p<.05

Notes: The models were estimated with robust standard errors clustered by household.

Appendix III. Alternative to Figure 6 with Median Prevalence and Median Penalties Calculated from a Pooled Population-Weighted Cross-National Sample (excluding the U.S.).
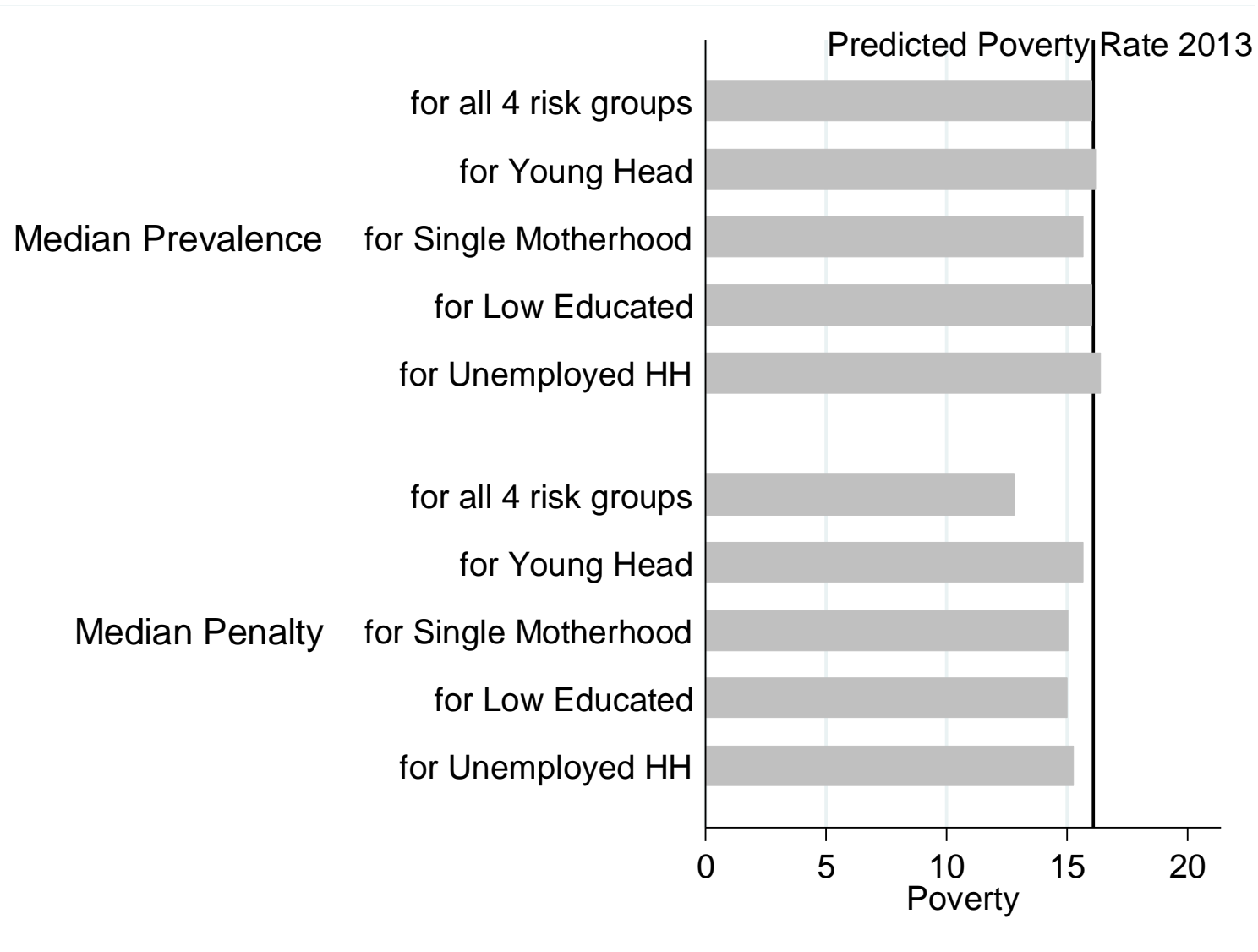
Appendix IV. Descriptive Statistics for Balanced Pooled Sample of 29 Countries (N=123,192).

	Mean	SD
Poverty	.094	.291
Unemployed HH	.077	.267
Young Head	.044	.204
Low-Educated Head	.192	.394
Single Mother HH	.051	.220
Head 25-34	.184	.387
Head >54	.175	.380
Female Head No Children	.071	.256
Male Head No Children	.060	.237
# Children	1.139	1.269
# >65	.114	.386
High-Educated Head	.329	.470
Multiple Earner HH	.608	.488
Transfer Share	-.0000002	.983
Unemployment Rate	-.0000001	.983

Appendix V. Multilevel Logistic Regression Models of Individual Risks in 29 Rich Democracies.

	Young Head	*Young Head*	*Single Mother HH*	*Single Mother HH*	*Low-Education Head*	*Low-Education Head*	*Unemployed HH*	*Unemployed HH*
Penalty for Risk	**1.829** **(1.62)**	**4.458**** **(3.19)**	**-.509** **(-.39)**	**-.976** **(-.66)**	**-4.136** **(-1.59)**	**-4.743** **(-1.66)**	**.065** **(.07)**	**.335** **(.37)**
Eligible Sample	All Individuals in Working-Age HHs	18-24 Year Olds Without High Education	All Individuals in Working-Age HHs	All Children + Women 18-54, Excluding Multiple Earner HHs	All Individuals in Working-Age HHs	Adults 25-54, Excluding Multiple Earner HHs	All Individuals in Working-Age HHs	Adults 25-54 Without High Education
N	123,192	9,069	123,192	24,755	123,192	20,511	123,192	37,847

** p<.01   * p<.05

Note: The cells display coefficients and z-scores in parentheses. Each model adjusts for the same individual-level variables as in the parallel models in Table 2 (available upon request).

Appendix VI. Multilevel Logistic Regression Models of Poverty in 29 Rich Democracies (N=123,192).

	Random Intercept	*Random Slope: Unemployed*	*Random Slope: Low-Educated*	*Random Slope: Single Mother*	*Random Slope: Young Head*
Unemployed HH	1.604***	1.633***	1.646***	1.637***	1.623***
	(50.81)	(15.97)	(51.54)	(51.30)	(51.06)
Low-Educated Head	.614***	.625***	.523***	.616***	.612***
	(23.09)	(23.33)	(5.93)	(23.06)	(22.88)
Single Mother HH	.171***	.162***	.179***	.170	.174**
	(4.37)	(4.09)	(4.55)	(1.52)	(4.42)
Young Head	1.155***	1.169***	1.187***	1.176***	.984**
	(27.17)	(27.48)	(27.79)	(27.60)	(7.56)
Transfer Share	-.361***	-.310***	-.280***	-.353***	-.398***
	(-4.16)	(-3.52)	(-3.53)	(-4.14)	(-4.54)
Cross-Level Interaction with Transfer Share		-.251*	-.296**	-.088	.242
		(-2.43)	(-3.33)	(-.78)	(1.74)

***p<.001   ** p<.01   * p<.05

Note: The cells display coefficients and z-scores in parentheses. Each model adjusts for the same remaining variables as in the parallel models in Table 3 (available upon request).

Appendix VII. Multilevel Linear Probability Models of Poverty in 29 Rich Democracies, Including All Cases and Weighted by Country to Balance N's Across Countries (N=1,263,152).

	Random Intercept	*Random Slope: Unemployed*	*Random Slope: Low-Educated*	*Random Slope: Single Mother*	*Random Slope: Young Head*
Unemployed HH	.260***	.242***	.260***	.262***	.260***
	(10.94)	(8.70)	(11.01)	(11.10)	(11.00)
Low-Educated Head	.066***	.066***	.053***	.066***	.065***
	(4.54)	(4.66)	(4.22)	(4.55)	(4.42)
Single Mother HH	.045*	.041*	.046**	.058**	.045**
	(2.55)	(2.37)	(2.62)	(3.16)	(2.58)
Young Head	.117***	.119***	.120***	.118***	.078***
	(6.00)	(6.08)	(5.84)	(6.06)	(6.46)
Transfer Share	-.027***	-.019**	-.022***	-.026***	-.027***
	(-3.90)	(-2.81)	(-4.07)	(-3.92)	(-3.81)
Cross-Level Interaction with Transfer Share		-.067*	-.023*	-.026	-.002
		(-2.07)	(-2.04)	(-1.34)	(-.16)

** $p<.01$ * $p<.05$

Note: The numbers in parentheses are z-scores. All models estimated with robust standard errors. Each model adjusts for the same remaining variables as in the parallel models in Table 3 (available upon request).