
**TARGETING, UNIVERSALISM AND SINGLE MOTHER POVERTY: A MULTI-
LEVEL ANALYSIS ACROSS 18 AFFLUENT DEMOCRACIES***

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ABSTRACT

We examine the influence of individual characteristics and targeted and universal social policy on single mother poverty with a multi-level analysis across 18 affluent democracies. Single mothers are disproportionately vulnerable to poverty in all countries. Yet there is even more cross-national variation in single mother poverty rates than for poverty among the overall population. By far, the U.S. has the highest rate of poverty among single mothers. The analyses show that single mother poverty is a function of the household's employment, education, age composition, and the presence of other adults. Beyond individual characteristics, social policy exerts substantial influence on single mother poverty. We find that two measures of universal social policy significantly reduce single mother poverty. Alternatively, one measure of targeted social policy does not have significant effects, while another measure is only significantly negative when controlling for universal social policy. Moreover, the effects of universal social policy are larger. Additional analyses show that universal social policy does not have counterproductive consequences in terms of family structure or employment, while the results are less clear for targeted social policy. Although debates often focus on altering the behavior or characteristics of single mothers (e.g., encouraging education, employment, fewer children and marriage), welfare universalism could be an even more effective anti-poverty strategy.

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The poverty of single mothers has long been a source of controversy and concern. Both the early Settlement Laws and Colonial Poor Laws of the seventeenth century distinguished between the “deserving” poor and “undeserving” husbandless mothers (Sidel 2006). Public debate over changes in family structure has intensified as single mother families and their presence among the poor have risen in recent decades (McLanahan and Percheski 2008; Lieb and Thistle 2006; Wu 2008). Policymakers faced with the need to protect single mothers from economic insecurity, while curtailing their perceived dependence on welfare, have struggled with a so-called “new American dilemma” (Garfinkel and McLanahan 1986). Often stereotyped and blamed for their own disproportionate poverty (Sidel 2006), single mothers have been called “the most prominent lightning rod for political attacks,” provided with assistance only reluctantly and with stipulations that are intended to counter what is perceived as problematic behavior (Handler and Hasenfeld 2007: 184).

Beyond public debates, single mothers have received considerable attention from demographers and poverty researchers. An interdisciplinary literature shows a strong association between single motherhood and children’s, women’s and overall poverty (Ananat and Michaels 2008; Bianchi 1994, 1999; Lieb and Thistle 2006; Rank 2005; Seccombe 2000; Thomas and Sawhill 2002). Single mothers are particularly vulnerable because of their typically lower wages, lack of spousal support (including child support), and the burdens of raising children (Sorensen 1994; Seccombe 2000). In turn, single motherhood is widely regarded as a key mechanism in the reproduction of poverty and inequality (Edin and Lein 1997; Lichter et al. 2006; Martin 2006; McLanahan and Percheski 2008; Musick and Mare 2006).

A recent literature has emerged on cross-national differences in single mother poverty as well (e.g., Christopher 2002; Kilkey and Bradshaw 1999; Rainwater and Smeeding 2004; Sorensen 1994). For example, Huber and colleagues (2009) analyze macro-level variation in single mother poverty across affluent democracies over the past thirty years. Other scholars have investigated individual-level single mother poverty within countries at one point in time, by examining one country (e.g., Kammerman 1995; Rose 1995), a small set of countries (e.g., Christopher et al. 2002), or a larger set of affluent democracies (e.g., Kilkey and Bradshaw 1999). Cross-national research on child poverty has also highlighted the role of single motherhood (Chen and Corak 2008; Heuveline and Weinshenker 2008). By providing a comparative perspective, this literature has broadened the field and called attention to the role of national social policy context in shaping the economic security of single mother families.

Our study builds on these literatures by conducting a cross-national, multi-level analysis of single mother poverty. Specifically, we aim to assess whether targeted or universalist social policies can explain variation across affluent Western democracies. Our analyses concentrate on social policy because many recent studies demonstrate the centrality of the welfare state to cross-national variation in children's, women's, single mother, and overall poverty (e.g., Brady 2009; Heuveline and Weinshenker 2008; Huber et al. 2009; Misra et al. 2007; Moller et al. 2003; Rainwater and Smeeding 2004). Despite the salience of the welfare state generally in previous studies, we know little about the relative effects of targeted and universal social policy for poverty. Targeted social policies purportedly concentrate resources on the well-being of the most vulnerable, and yet many contend that universal welfare states are more effective at promoting social equality.

This study offers several unique contributions. First, previous studies in *Demography* on single motherhood and poverty have mainly studied only the U.S. (e.g., Fitzgerald and Ribar 2004; Lichter et al. 2006; Martin 2006; Musick and Mare 2004; Wu 2008). Though a lot can be learned from this case, the U.S. may be unusual in both the level of single motherhood and the likelihood of poverty among single mothers. To fully assess the generalizability of relationships between nonmarital fertility, union formation, social policies, and poverty, it is essential to broaden the scope of comparison and examine cross-national differences in single mother poverty. Second, to the best of our knowledge, this is the first multi-level, cross-national analysis of single mother poverty. Although macro-level studies have assessed the effects of cross-national differences in social policy, such studies cannot incorporate individual-level information on the characteristics of single mothers. In contrast, extant individual-level analyses within countries have incorporated precise data on single mother households, but can only compare national differences in social policy qualitatively. Hence, a multi-level analysis can more rigorously test the effects of social policy on single mother poverty. Misra and colleagues (2007) conduct a multi-level analysis of work-family policies and poverty among 25-59 year old women across eleven countries.¹ Despite their significant contribution, it would be valuable to concentrate on single mother poverty, broaden the age and cross-national scope, and assess social policy more comprehensively. Third, though there has been a literature on the causes of universal versus targeted social policy (e.g., Nelson 2007), there has actually been little empirical research comparing the effects of universal and targeted social policy. Given the salience of social policy for a variety of demographic outcomes, there is a clear need for scrutiny. In the

¹ Though not the focus of their analysis, Misra and colleagues (2007) do calculate the interaction effects of parenthood and partnered status to estimate the effects of public childcare and family leave for 25-59 year old single mothers in Figure 2 however.

sections that follow, we review arguments for targeted and universal social welfare policies. We then discuss the methods and report the results before concluding.

SOCIAL POLICY AND SINGLE MOTHER POVERTY

The Case for Targeting

Many argue that the principal anti-poverty strategy should be to concentrate resources on those at greater risk of poverty, like single mothers (Barry 1990; Barth et al. 1974; Besley 1990; Le Grand 1982; Tullock 1997). Purportedly, targeting has three major advantages. First, targeted social policies are more efficient. In an environment of finite or austere budgets, targeting focuses scarce resources on those most in need (Blank 1997; Squire 1993). As Greenstein (1991: 457) explains, “With the funds available for social program interventions likely to remain limited, too heavy an emphasis on costly universal approaches could result in too few resources being directed to those at the bottom of the economic ladder.” Instead of forcing the state to subsidize middle class families, targeted programs allow the market to supply resources to those able to work and save. Hence, targeted programs avoid the redundancy and reverse-redistributive effects of superfluous state support to the affluent (e.g., social security old age pensions collected by the non-poor) (Tullock 1997). This point grows out of the common criticism that the primary beneficiaries of social policies are typically the non-poor and that only a small share of welfare spending actually goes to those at or near poverty (Goodin and LeGrand 1987). By avoiding expending precious resources on those not at risk of poverty (often called “leakage”), targeted programs free up additional resources for the poor (Squire 1993). Those saved resources can then be channeled into ensuring the basic security of low-income households (Collier and Dollar 2001). Moreover, because the poor are more likely to spend assistance on consumption than

savings, targeted programs are more likely to translate into basic needs like housing and food. In sum, targeted programs concentrate the transfer of scarce resources to those most in need and thus make the biggest difference in alleviating poverty (Blank 1997).²

Second, anti-poverty policies without means-testing may be counterproductive (Gilbert 2002; Lindbeck 1995). Whereas some welfare states provide a variety of programs as an entitlement of citizenship, targeted programs can provide incentives for work and marriage and induce the poor to leave poverty. There has long been concern that generous social policies have adverse labor supply effects (Lindbeck 1998), encourage dependency and longer poverty spells (Bane and Ellwood 1994), and provide an incentive for single parenthood (Lichter et al. 1997; Moffitt 2000) or fertility (Schellekens 2009). Because means-tested programs often cut off support once a household reaches a certain income level, such policies may encourage families to leave welfare programs and the lower incomes that are associated with them. Means-tested programs can be designed to taper off as a household's income rises (e.g., the Earned Income Tax Credit) or coupled with work requirements to encourage families' pathways out of poverty (Bane and Ellwood 1994; Blank 1997; Leisering and Leibfried 1999; Mead 1986). In contrast, comprehensive welfare generosity for all citizens could indirectly increase poverty by encouraging unemployment, labor force withdrawal, and single parenthood.

Third, targeted policies for the poor have the potential to avoid the biases inherent in a general welfare state. Regardless of whether welfare states generally reduce poverty, an extensive literature demonstrates that welfare states also reproduce social hierarchies. Most relevant for our study is the role welfare states play in reinforcing gender inequality. Many

² In order to have the greatest poverty-reducing effect throughout the life cycle and across generations, some contend that assistance should be targeted not only to the poor but also to specific segments within the poor. In their study of income's effect on children's life chances, for example, Duncan and colleagues (1998: 421) conclude that resources should be targeted at a child's early years.

scholars point out that gender inequalities – especially the feminization of poverty – remain resilient in societies that are relatively economically equal (Christopher et al. 2002; Gornick 2004; Misra 2002). Indeed, several social democratic and Christian democratic welfare states that have accomplished broader economic equality have also maintained traditional breadwinner gender roles and lower female labor force participation (Sainsbury 1999). As a result, feminists often contend that purportedly generous comprehensive welfare states disproportionately advantage men, strengthen patriarchy, do not enhance women’s autonomy, and often leave women (especially single mothers) particularly vulnerable to poverty. In an influential critique of the welfare state literature, Orloff (1993) argues that generous welfare states often fail to allow women to form and maintain autonomous non-poor households. Partly in response, Esping-Andersen (1999) acknowledges that single motherhood is a “new social risk” that most welfare states were not built, and may be ill equipped, to manage. Given these concerns, targeted social policies aimed at assisting single mother households – not comprehensive generous welfare states – may be more likely to alleviate single mother poverty (Kilkey and Bradshaw 1999).³

The Case for Universalism

Many others argue that the most effective approach to reducing poverty is to build a generalist, comprehensive welfare state (often referred to as “universalist”) (Skocpol 1991). For universalists, targeting is viewed as an inferior approach because it has the unanticipated consequence of actually delivering less economic resources to those in need. Universalist welfare states may not be designed to provide economic security for specific marginalized groups. However, proponents of universalism counter the criticisms in the previous section by stressing that many policies that are not designed to redistribute end up having a redistributive impact

³ Though acknowledging the gendered nature of the welfare state, Skocpol (1992) points out that universal social policies need not worsen single mother poverty. “Maternalist” welfare states may have developed from traditional expectations for women to be mothers, but can still end up enhancing the economic security of single mothers.

(Sefton 2006). Korpi and Palme (1998) refer to this as the “paradox of redistribution” – the more benefits are targeted at the poor, the less they actually reduce poverty. Because universalist welfare states are larger and more generous for the overall population, universalism ends up being more effective at reducing inequality and poverty (Nelson 2004). Purportedly, this is because universalist welfare states crowd out more inegalitarian private alternatives to social policy and because even earnings-related social insurance usually has an element of redistribution built into it (Korpi and Palme 1998). Consistent with arguments for welfare universalism, recent studies show that generous welfare states tend to have less poverty for all groups, not just for two-parent families or male breadwinners (Brady 2009; Huber et al. 2009). For example, Christopher (2002) finds that particularly egalitarian welfare states (e.g., Finland and Sweden) are most successful at alleviating single mother poverty. In fact, welfare state generosity is one of the most influential factors explaining cross-national differences in poverty among affluent democracies (Brady 2009; DeFina and Thanawala 2003; Moller et al. 2003; Rainwater and Smeeding 2004). Thus, single mother poverty could be lower in an environment of welfare universalism simply because the entire population has less risk of poverty.

One reason welfare universalism tends to entail larger and more generous social policies is because universal programs garner greater political support than targeted programs (Skocpol 1991; Wilson 1996). Universal welfare programs are less stigmatizing to the poor and more generous in the long run, largely because universalism is more politically popular and thus gains better and more secure funding (Sefton 2006).⁴ Korpi and Palme (1998) argue that the “institutional structures” of universalist welfare states enhance the formation of coalitions for welfare generosity and unite the interests of poor and non-poor citizens (also Nelson 2007). This

⁴ Of course, there is debate about whether universalism is actually more popular than targeting. Greenstein (1991) argues that political support for targeted programs can be maintained as long as the public either believes that the benefits are deserved or approves of the services that are offered.

argument is consistent with the literature on social policy-feedback effects (Skocpol 1992) and the role of constituencies of beneficiaries and “ratchet effects” in the new politics of the welfare state (Huber and Stephens 2001; Pierson 2001). As Skocpol (1992: 531) writes, “Policies not only flow from prior institutions and politics; they also reshape institutions and politics, making some future developments more likely, and hindering the possibilities for others.” Universalist programs become defined as citizenship entitlements or rights, and thus subsequently become difficult to under-fund or cut back. Hence, welfare universalism is path dependent, as the politics of social policy reinforce already established programs that have constituencies of beneficiaries and normative expectations attached to them (Brooks and Manza 2007).

Although targeting might appear to be more efficient, there are several unanticipated ways in which universalism may ultimately devote a greater share of resources to actual assistance. Means-tested targeted programs require monitoring and screening of the poor, which is administratively expensive (Blank 1997; Lindert 2004; Sefton 2006). In addition, stringent screening often sets up barriers to and inappropriately disqualifies recipients, and discourages enrollment in related programs (Currie 2006). Rather than devoting resources to assist the upward mobility of the poor, this constrains welfare services staff to spend time and effort on surveillance and enforcement (Piven and Cloward 1993). Just as some argue that universalist programs trigger disincentives, others suggest that targeting is counterproductive. According to this literature, targeting discourages employment because benefits will be cut off once one rises above the means-tested line (Squire 1993). For example, Edin and Lein (1997) show that Aid to Families with Dependent Children forced mothers to make choices between low-wage employment, without health insurance and with greater hardship and economic uncertainty, or welfare reciprocity, with a guaranteed income and Medicaid for one’s children. They explain that

lack of universal health insurance and publicly provided childcare actually may have encouraged welfare dependency. In his comprehensive study of social welfare since the 18th century, Lindert (2004: 35) concludes that the rise of universalism actually reduced work disincentives because everyone shared basic rights to income, health care, and other public services. Further, careful empirical studies have often failed to find evidence that less targeted and more generous welfare benefits actually encourage single motherhood and welfare dependency (Blau et al. 2004; Carlson et al. 2004; Fitzgerald and Ribar 2004).

Finally, universalist welfare states are better able to address the heterogeneous risks that low-income families and vulnerable groups face. Universal welfare states reduce poverty precisely because of the comprehensive scope of their social insurance, transfers and welfare services (Kamerman 1995). People become eligible for targeted programs only after they have fallen into poverty, while universal programs enhance the well-being of all. As a result, universal policies reduce everyone's chances and costs of risks like illness, and are more likely to prevent descents into poverty (Krishna 2007). Thus, universal welfare states distinctively offer a complex of integrated and interdependent programs that protect the poor, along with all citizens, from a wide variety of insecurities and risks (Wilensky 2002; Zuberi 2006).

Research Questions

The discussion above leads us to three related research questions. First, are targeted and universal benefits both effective at reducing single mother poverty? Second, is one more effective than the other? Third, do targeted or universal benefits have counterproductive consequences that worsen poverty for single mother families?

METHODS

Individual-Level Data

The Luxembourg Income Study (LIS) provides the micro-level data, and the individual is the unit of analysis. The LIS is a set of cross-nationally and historically harmonized and nationally representative individual-level datasets with standardized measures. We analyze a dataset near the year 2000 for 18 affluent Western democracies.⁵ We first confine our sample to women aged 18 to 54 years old. Then, we select only those in households headed by a female, where the head is neither married nor cohabiting, and children are present.⁶ This sample excludes children, elders and men who live in these households. To be clear, however, we do include control variables regarding other people in the household (see below). In additional analyses, we estimate all models for lone mother households (i.e., a single mother household containing no other adults). The conclusions are broadly consistent with the main analyses, so we present those results in Appendix II and III. The analyses merge the 18 countries into one file containing 15,116 individuals. Table 1 contains descriptive statistics and sources. Appendix I contains a correlation matrix.

[TABLE 1 ABOUT HERE]

The dependent variable is *Poverty*. We follow the vast majority of cross-national poverty studies and use the relative headcount measure of poverty (Brady 2003; DeFina and Thanawala

⁵ We use the data available in January 2009. Details on the LIS are available at www.lisproject.org.

⁶ We code couples using the variable “married,” which includes married and non-married cohabiting couples (including same sex). Unfortunately, the LIS does not provide sufficient information to identify the mother of the children. So, our sample includes other 18-54 year old women residing in the household. We address this problem by controlling for the number of other adults and multiple earners in the household and by reestimating the models on lone mothers (see below). While Rainwater and Smeeding (2004: 109-110) define single mother households simply as female-headed households where children are present, we employ an even more stringent definition by only including those not married or cohabiting.

2003; Moller et al. 2003; Rainwater and Smeeding 2004; Smeeding 2006).⁷ An individual is defined as poor = 1 (non-poor = 0) if they reside in a household with less than 50% of the median household income. We calculate household income after taxes and transfers using the standardized LIS variable “DPI.”⁸ To adjust for household size, DPI is divided by the square root of household members. The poverty threshold is calculated for each country, and includes all individuals and households regardless of age or employment (i.e., including those outside the sample). The sample is reduced to single mothers only *after* calculating the poverty threshold. As Table 1 displays, 26.9 percent of the sample is poor. In analyses available upon request, we use poverty thresholds of 40 and 60 percent of the median, and the conclusions are consistent.

The analyses incorporate several demographic variables. To embrace the reality that household income is a function of multiple members and involves pooling of resources and expenses, several individual characteristics are measured at the household-level. First, we include measures of labor market standing. We specify binary variables for *No One Employed* in the household and *Multiple Earners* in the household (reference = one earner). Using the LIS standardized measures of education, we include binary measures of *Head Low Education* and *Head High Education* (reference = medium).⁹ Next, we control for the age composition of the

⁷ This literature concludes that relative measures are: a) more valid for leading conceptualizations of poverty (e.g., capability deprivation and social exclusion); b) more predictive of life chances and well-being than available absolute measures; c) more effective at measuring deprivation as defined within cultural and historical context; d) more reliable for cross-national comparison; and e) more realistic in affluent democracies where most people’s basic needs are not threatened. Although relative measures are not perfect, more defensible absolute measures with fewer problems have not been developed.

⁸ DPI includes disposable cash and noncash income after taxes and transfers (including food stamps, housing allowances, and tax credits like the Earned Income Tax Credit).

⁹ This standardized measure is an innovative solution for comparing education across countries (www.lisproject.org/dataaccess/educlevel.htm). The LIS staff codes all cases as: a) less than secondary education (low), b) secondary education or some tertiary education (medium), and c) completed tertiary or more education (high). The LIS created a routine to generate these codes, and we copied the code and extended it to all 18 countries. Unfortunately, the LIS does not provide sufficient detail on vocational/technical secondary education. Using the variable d10, necessary information is available for only six of the 18 countries. There is also no information on specialization, so we would be unable to differentiate between, e.g., secretaries and electricians.

household with *Age* of the head and a binary variable for *Child Under 5*.¹⁰ We also include the # of *Other Adults* and # of *Children* under 18 in the household.

Country-Level Data

We use a variety of archival sources, though Huber and colleagues (2004) provide the proximate source for many variables. The values of these country-level variables, as well as details on the LIS and poverty rates, are included in Table 2. With the exception of economic growth, the country-level variables are measured in the same year as the LIS survey.

[TABLE 2 ABOUT HERE]

To control for the economic context within a country (Gundersen and Ziliak 2004), we include two variables. *Economic Growth* is the three-year average (t, t-1, t-2) of the annual rate of change in gross domestic product (GDP), measured in purchasing power parity (PPP) dollars. *Unemployment* is the percent of the labor force without employment.

To assess the effects of social policy, we examine two measures each of targeted and universal social policy. The first measure of targeting is the *Single Mother Entitlement*. We collected and coded original data to construct this variable, which measures the amount of targeted cash assistance a single mother with one child (under 3 years old) would receive if she was not employed.¹¹ We tabulate all family assistance, child rearing, and other cash benefits in current local currency, and then divide this value by the median equivalized household income

¹⁰ In analyses available upon request, we variously add head's age-squared, age of the respondent, and dummies for the respondent or head being under 25. The results are consistent, so we use this more parsimonious approach.

¹¹ As Table 1 shows, slightly more than a third of the sample has a child under 5 and the average single mother household has 1.7 children. We define targeted benefits for a mother with a child under 3 because this maximizes the value of targeted benefits and gives this measure the best chance of being consequential (e.g., countries usually give greater benefits for young children). One could construct alternative single mother entitlement rates for various numbers and ages of children, however, it quickly becomes difficult to reduce these alternatives to one estimate on this variable per country.

from the LIS.¹² Thus, our variable is the percent of the median equivalized income that a single, non-employed mother with one child is statutorily entitled to receive from the state.¹³ This is the means-tested cash assistance officially targeted for single mothers.

The second measure of targeting is the *Targeting Ratio*. This measure follows the literature on “targeting efficiency” (Creedy 1996; Kakwani and Son 2006; Kakwani and Subbarao 2007; Mahler and Jesuit 2006) and others’ estimation of benefit levels in the micro-data of the LIS (Behrendt 2000; Mahler and Jesuit 2006; Smeeding 2006). To construct this measure, we calculate the equivalized value of total government assistance received by single mother and all households.¹⁴ We calculate these values in each country in the micro-level LIS data. We then estimate the ratio of benefits received by single mother households over those received by all households. This ratio gauges whether single mother households receive disproportionate benefits compared to all others. A ratio of one (i.e., unity) means they receive the same amount. Unlike the first targeting measure, which focuses on the official, statutory targeted assistance, this measure gauges the total actual benefits received by a targeted group.

¹² For the U.S., we calculate this based on the mean benefit value of Temporary Assistance to Needy Families (TANF) across states. One could add Women Infant and Children (WIC) benefits because this is targeted at low-income mothers and children. However, we were not able to identify any cross-national source on means-tested in-kind benefits. Given our interest in benefits targeted exclusively for single mothers, we did not include food stamps and/or housing assistance as those are means-tested for all and not targeted for single mothers. Moreover, adding in-kind benefits in the U.S. would only raise the already above average single mother entitlement for the U.S. and thus would lead to an even less significant effect for this measure (cf. Tables 2-3 below).

¹³ We use the term “non-employed” to make clear that we do not include unemployment benefits here. Although a non-employed single mother might qualify for unemployment benefits, this is not a benefit targeted at single mothers (though it is targeted at the unemployed). Moreover, many single mothers have not been previously employed long enough to qualify for unemployment insurance.

¹⁴ “Total government assistance” sums the LIS variables *soctrans* (the sum of social insurance and social assistance transfers) and *v34* (alimony and child support). To equivalize this measure, we divide by the square root of household members. In analyses available upon request, we systematically tested several derivations of this measure and the results are robust. Specifically, we strictly concentrated on social assistance benefits targeted to low-income households (see Smeeding 2006) and variously add or subtract social insurance, alimony/child support, child/family benefits, unemployment compensation, and maternity/family leave benefits. We present the most comprehensive measure of government assistance here, as there is often targeting implicit in what are statutorily considered universal programs.

For the first measure of universalism, we construct a *Welfare State Index*. This comprehensive measure of welfare generosity is a standardized scale (mean=0, s.d.=1 across the 18 countries) of four indicators: social welfare expenditures, social security transfers as a percent of GDP, government expenditures as a percent of GDP, and public health spending as a percent of total health spending (alpha=.87).¹⁵ This index incorporates several classic measures of welfare effort and overall welfare generosity, and builds upon and combines measures that others have shown to significantly influence cross-national variation in poverty (e.g. Brady 2009; Huber and Stephens 2001; Moller et al. 2003).

As a second measure of universalism, we calculate the *Universal Replacement Rate*. This measure mimics the targeting ratio in utilizing the actual government assistance received as calculated in the micro-data of the LIS (Behrendt 2000; Mahler and Jesuit 2006; Smeeding 2006). We estimate the mean equivalized value of total government assistance (social insurance plus social assistance) received for all households in each country. We then calculate this value as a percent of median equivalized household income. Thus, this measure estimates the average percent of median income that typical residents of a country receive from the state.

Multi-Level Modeling Technique

The logistic regression model is typically utilized in order to examine binary dependent variables. However, due to the clustering of individuals within countries and the inclusion of country-level variables, the standard logistic regression model violates the assumption of independent errors. Therefore, we utilize multi-level mixed effects logistic regression models. Mixed logit models predict the likelihood that an individual is poor based on a set of individual-level and country-level variables. We estimate a random intercept model that can be expressed as

¹⁵ In analyses available upon request, we substitute each of these indicators as well some alternatives (e.g., family assistance as % of GDP). The results are consistent. Also, there is no evidence of significant interaction effects of our welfare state measures with welfare regimes or of regime main effects.

two sets of equations. First, the log odds of being poor ($\log(p_{ij}/1-p_{ij})$) for the i th individual in the j th country is represented by η_{ij} and is a function of country intercepts (β_{0j}), a set of fixed individual-level characteristics (βX_{ij}) and an error term (r_{ij}):

$$\log(p_{ij}/1-p_{ij}) = \eta_{ij} = \beta_{0j} + \beta X_{ij} + r_{ij}$$

Second, each country intercept (β_{0j}) is estimated as a function of an intercept ($\gamma_0 C_j$), a set of country-level variables (γC_j) and an error term (u_{0j}):

$$\beta_{0j} = \gamma_0 C_j + \gamma C_j + u_{0j}$$

Partly because we only have 18 countries, we only estimate random intercept models and treat the individual-level coefficients as fixed effects.¹⁶

RESULTS

Descriptive Patterns

Table 2 displays the cross-national patterns in single mother poverty, alongside the values of the country-level variables.¹⁷ Across these 18 countries, the average single mother poverty rate is 24.2 percent. However, there is substantial cross-national variation. In fact, there is more variation in single mother poverty rates than in overall poverty rates (coefficients of variation .5 vs. .4). Canada, the Netherlands, the U.K. and the U.S. are more than one standard deviation (11.3) above the mean, whereas Denmark, Finland, Norway and Sweden are more than one standard deviation below. Denmark stands out with a single mother poverty rate of only 3.4

¹⁶ The analyses are estimated in Stata. Obviously, there are several multi-level modeling approaches. Unfortunately, given the remote access of LIS (only using SPSS, Stata or SAS), one cannot use multi-level software like HLM. Still, `xtmelogit` in Stata should be equivalent to the binary HGLM model in HLM. One could also estimate the individual-level models in LIS, and then export those estimates into a two-step “variance-known” procedure in HLM. Also, one could estimate a random effects model or use robust-clustered standard errors. We propose that our strategy is defensible with comparable strengths to these alternatives.

¹⁷ We also include the N’s for each country. The shaded cells indicate countries where our sample includes less than 200 cases. For these countries, the mean level of single mother poverty should be read with caution. For example, the Netherlands has a substantially higher single mother poverty rate compared to its overall poverty rate. This could be partially due to the fact that our sample contains only 144 cases from that country.

percent. By far, the U.S. has the highest rate of poverty among single mothers at 40.5 percent, which indicates how unusual the U.S. case is relative to other affluent democracies.

[TABLE 2 ABOUT HERE]

The cross-national mean in single mother poverty is significantly higher than the mean in overall poverty of 9.6 ($t=6.5$, $p<.001$). Indeed, single mother poverty is higher than overall poverty in all 18 countries. The ratio of single mother poverty to overall poverty is displayed in the third column. On average, single mothers are nearly 2.7 times more likely to be poor than the typical person. This finding is consistent with a core theme within the feminist literature on the welfare state. France, Germany, Luxembourg and the Netherlands exhibit ratios substantially above the mean, although Denmark, Finland, Ireland, Italy, Norway and Sweden are substantially below. The only country with a single mother-to-overall poverty ratio near one is Denmark, where the single mother poverty rate is only 106 percent of the overall poverty rate. Despite having the highest rate of single mother poverty, the U.S. is slightly below the mean in this ratio. Thus, one reason for the high rates of single mother poverty in the U.S. is the high overall poverty rate.

The last row of Table 2 displays the bivariate associations at the country-level ($N=18$). The single mother poverty rate is moderately correlated with the overall poverty rate and the rate of single motherhood ($r>.53$). Also, single mother poverty is positively correlated with the single mother-to-overall poverty ratio ($r=.58$). Finally, economic growth and unemployment are not very correlated with the single mother poverty rate.

With regards to the social policy variables, single mother poverty is strongly negatively correlated with both measures of welfare universalism ($r>.56$). However, it is not very correlated with either measure of targeted social policy and both correlations are positively signed. The lack

of correlation with the single mother entitlement can be explained partly by the fact that the single mother entitlement is insufficient to lift a family out of poverty in every country except France.¹⁸ In every other country, a single mother household relying exclusively on these benefits will have an income below the poverty threshold. Although the welfare state index and universal replacement rate closely correspond to well-known patterns in welfare generosity among affluent democracies (Hicks 1999; Huber and Stephens 2001), both measures of welfare targeting are negatively correlated with the measures of welfare universalism.

To provide concreteness to these correlations, we graph the bivariate relationships between single mother poverty and the universal replacement rate and the targeting ratio. These two are chosen because they prove to be most consequential in the analyses below. Figure 1 shows a clear negative relationship between the universal replacement rate and single mother poverty. The U.S. stands out for its particularly high single mother poverty and low universal replacement rate, but the correlation remains strong if we omit the U.S. ($r=-.57$). By contrast, Figure 2 shows that the targeting ratio is simply not very associated with single mother poverty. Indeed, the sign is positive and the countries with the highest targeting ratios also have high levels of single mother poverty (e.g., Australia and United Kingdom).

[FIGURE 1 ABOUT HERE]

[FIGURE 2 ABOUT HERE]

Before proceeding to the models, it is helpful to compare the universalism and targeting of select countries. Despite a slightly above average welfare state index, Italy has a targeting ratio below one and a single mother entitlement of zero because single mothers are not

¹⁸ The single mother entitlement is calculated as a percent of median equivalized household income, and poverty is defined as less than 50 percent of median equivalized household income. Thus, France is the only country with a value above 50 percent.

guaranteed any welfare benefits solely for being a single mother.¹⁹ Sweden has a below average targeting ratio and a single mother entitlement below six percent. This is the case even though Sweden has the highest values for the welfare state index and universal replacement rate (and Italy is above average on both). By contrast, Australia and Ireland have the second and third highest single mother entitlements, and Australia has the highest targeting ratio (and Ireland has the fourth highest). However, these two have the second and third lowest values in the welfare state index and are below average in the universal replacement rate. Although Italian and Swedish single mothers do not receive particularly generous targeted assistance, they do reside in societies where 24.1 and 29.8 percent of GDP is devoted to social welfare expenditures. Alternatively, social welfare expenditures only comprise 18.0 percent of GDP in Australia and 13.6 in Ireland. In Sweden, all parents, not just single mothers, have access to publicly subsidized childcare and paid parental leave, and a universal tax-free child/family allowance for each child (Kamerman 1995; Whitehead et al. 2000). Because many Italian single mothers co-reside within intergenerational families, generous public pension, healthcare and disability programs provide an indirect but salient layer of support for their economic security (Rainwater and Smeeding 2004: 128, 130). Australia and Ireland feature single mother poverty rates above the cross-national mean, while Italian and Swedish single mother poverty rates are below the cross-national mean. Thus, the descriptive patterns suggest universalism more effectively reduces single mother poverty than targeting.

¹⁹ For both Italy and Spain, the single mother entitlement is zero. Both provide family assistance only as a supplement to employment earnings. For example, a single mother in Italy is eligible for family assistance if she is employed, the only wage earner in the family, and low-income. As explained above, this measure assumes non-employment following the argument that this benefit is solely for being a mother with young children.

Multi-Level Analyses

Table 3 displays the odds ratios and z-scores for the models of single mother poverty. Throughout, the individual-level predictors are significant and stable. Multiple earners, a head with high education, age, and additional adults reduce the likelihood of poverty for single mothers. The presence of multiple earners in the household reduces the odds of poverty by a factor of 3.2 – the largest negative effect. If the household head has high education, the odds decline by a factor of 2.3. For each ten years the head is older, the odds of poverty are reduced by a factor of 1.27. For each additional adult in the household, the odds decline by a factor of 1.14. Thus, single mothers are less likely to be poor with other adults and earners in the household and if the head is older and more educated.

[TABLE 3 ABOUT HERE]

Conversely, unemployment, a head with low education, young children, and the number of children increase poverty among single mothers. As with the negative effects, the largest effect owes to labor market status. If no one is employed in the household, the odds of poverty increase by a factor of 7.3 – the largest effect overall. If the head has low education, the odds grow by a factor of 1.7. The presence of a child under 5 and each additional child increase the odds of poverty by a factor of about 1.3.

Models 1-4 also include controls for the economic context of the country. Though economic growth is always insignificant, unemployment is significantly positive in models 1 and 2 (odds=1.1), but is insignificant in models 3 and 4.

Model 1 shows that the welfare state index has a significant negative effect. The odds of single mother poverty are reduced by a factor of 1.9 for a one-unit increase in the welfare state index. The index is constructed with a mean of zero and a standard deviation of one, but because

some countries contribute more cases to the sample, the actual standard deviation is slightly greater than one. For a standard deviation increase, the odds of single mother poverty should decline by a factor of 1.95. These effects are comparable to the poverty-reducing effects of a highly educated household head, and are larger than the effect of the head aging ten years or having another adult in the household. In addition, the welfare state effects more than offset the poverty-increasing effects of having a low-educated head, a child under 5, or additional children.

Model 2 demonstrates that the universal replacement rate also has a significant negative effect. For a standard deviation increase in the universal replacement rate, the odds of single mother poverty are expected to decline by a factor of 1.9. Hence, the universal replacement rate has an effect comparable to the welfare state index and larger than several demographic controls.

Model 3 shows that the targeting ratio is negatively signed but is not close to statistical significance ($t=-.2$). In model 4, the single mother entitlement rate is also negatively signed but not near significance ($t=-.3$). These insignificant results for targeted welfare parallel the weak bivariate correlations above. In these initial models, the targeted welfare measures are not as effective at reducing single mother poverty as the measures of welfare universalism.

In the next set of models, we omit the two controls for economic context because it is preferable to keep the models parsimonious at level 2 with only 18 countries.²⁰ Models 5 and 6 combine the welfare state index with the two measures of targeting. In both models, the welfare state index is significantly negative, though the effect is slightly larger in the model including the targeting ratio (model 5). For a standard deviation increase in the welfare state index, the odds of single mother poverty decline by a factor of 1.9-2.5. Though the single mother entitlement variable remains insignificant in model 6, the targeting ratio is now significantly negative in

²⁰ Even though unemployment was significant in models 1-2, both economic context variables would be insignificant if included, and the other results would be consistent.

model 5. For a standard deviation increase in the targeting ratio, the odds of single mother poverty decline by a factor of 1.5. Thus, targeting appears to significantly reduce single mother poverty when controlling for welfare universalism, although the relative effect of targeting is smaller than the effect of universalism. This suggests that targeting benefits single mothers only net of universalism.

Models 7 and 8 include the universal replacement rate along with the two measures of targeting. Like the welfare state index, the universal replacement rate is significantly negative in both models, and the effect is slightly larger controlling for the targeting ratio. For a standard deviation increase in the universal replacement rate, the odds of single mother poverty are expected to decline by a factor of 1.7-2.5. Also like models 5-6, single mother entitlement remains insignificant but the targeting ratio becomes significantly negative. For a standard deviation increase in the targeting ratio, the odds of single mother poverty decline by a factor of 1.7. In model 7, the effect of the universal replacement rate is larger than the effect of targeting. However, targeting reduces single mother poverty when controlling for the even more consequential universal replacement rate.

To further illustrate the influence of targeting and universal welfare, it is helpful to consider the difference between the U.S. and other affluent democracies (cf. Table 2). If the U.S. increased its welfare state index to the cross-national mean while holding all other variables constant at their means, the odds of single mother poverty would be expected to decline by a factor of 3.8 (based on model 5). If the U.S. increased its welfare state index to Sweden's level (the most generous welfare state), the odds of poverty for the average single mother would decline by a factor of 13.3. If the U.S. increased its universal replacement rate to the cross-national mean or to Sweden's level, the odds of single mother poverty would be expected to

decline by factors of 4.5 and 17.9 (based on model 7). Hence, the poverty-reduction resulting from the U.S. moving to an average level of either measure of welfare universalism is larger than the effect of any other variable except no one employed in the household. The poverty-reduction resulting from the U.S. moving to Sweden's level of welfare universalism would be larger than the effect of any variable.

Conversely, if the U.S. substantially increased its targeting ratio, single mother poverty would decline more modestly. If the U.S. increased its targeting ratio to the cross-national mean, the odds of single mother poverty would be expected to decline by a factor of 1.3 (based on model 7). Even if the U.S. increased its targeting ratio to Australia's level (the highest ratio), the odds of single mother poverty would decline by a factor of 5.1. Further, Table 3 provides no evidence that increases in the single mother entitlement would reduce single mother poverty.

Supplementary Analyses

As discussed above, a longstanding concern has been that generous social policy encourages single motherhood or poverty-worsening qualities of single motherhood like disemployment or additional children. To assess if social policy has counterproductive effects on single mother poverty, we estimate a series of models in Table 4. In particular, we investigate if the universal replacement rate or the targeting ratio influence a) whether an 18-54 year old woman resides in a single mother household (sampling all or only those with children in the household); and b) whether a single mother household contains multiple earners, c) no employed people, or d) more children. Because these characteristics influence single mother poverty, if social policy has counterproductive consequences, the two measures should have significant positive effects in models 1, 2, 4 and 5 and negative effects in the third model.²¹

²¹ These models are intentionally parsimonious and include only a few individual-level controls (listed in Table 4). The results are not sensitive to the inclusion of other individual-level controls. Though we include both social policy

[TABLE 4 ABOUT HERE]

The first two models assess whether the two social policy measures influence the odds that an adult woman resides in a single mother household. In both models, the universal replacement rate is negatively signed but not significant. The targeting ratio, however, is positively signed and nearly significant. Thus, there is no evidence that universal social policy encourages single motherhood. Given these results and because the targeting ratio is positive and significant for lone motherhood in Appendix III, there is some concern that targeting encourages single motherhood. However, one should be cautious about claiming a causal effect of targeted social policy on single motherhood. We stress that the important conclusion is that welfare universalism does not counterproductively increase the presence of single motherhood.²²

The last three models assess whether the two social policy measures discourage having multiple earners, or encourage disemployment or having more children. Most importantly, in all three models, there is no evidence that the universal replacement rate has counterproductive effects. This is also the case for the welfare state index (not shown) and in models of lone mothers (see Appendix III). Hence, universal social policy is not linked with counterproductive consequences for single mother poverty. However, there is some concern with the counterproductivity of targeting (though there is not for the single mother entitlement – not shown). The targeting ratio is positive and significant for disemployment in Table 4, and for lone mother disemployment in Appendix III. One should be cautious about interpreting this as causal because of potential endogeneity. One of the reasons that single mothers may receive greater welfare benefits is because they are more likely to be unemployed than the average person, so

measures in the same models, the results are robust if we estimate the models with one at a time. The first four are multi-level logit models and the last is a multi-level poisson model.

²² Though not shown, the welfare state index would be negatively signed and insignificant and the single mother entitlement would be positively signed and insignificant. As shown in Appendix III, the universal replacement rate is negatively signed and insignificant for lone motherhood as well.

the targeting ratio is probably positively influenced by unemployment differences between single mothers and others. Ultimately, there appears to be no evidence that universal social policy measure has counterproductive employment or parenting consequences, and there is only suggestive evidence that targeting might indirectly worsen single mother poverty.

CONCLUSION

To the best of our knowledge, this study provides the first multi-level, cross-national analysis of single mother poverty. We incorporate data on over 15,000 individuals across 18 affluent democracies to assess the effects of individual characteristics and social policy on the odds of single mother poverty. We descriptively show that single mothers are more likely to be poor than the average person in all 18 countries. Moreover, we demonstrate that there is even more cross-national variation in single mother poverty than poverty in the overall population. Our analyses reveal that both individual characteristics and social policy shape single mother poverty. Single mother households with multiple earners, well-educated and older heads, and multiple adults are less likely to be poor. Those with no one employed, low-educated and younger heads, and multiple children are more likely to be poor.

Our central conclusion regards social policy. We find that countries with generous comprehensive and universal welfare states substantially reduce the poverty of single mothers. The welfare state index and universal replacement rate are strongly negatively associated with single mother poverty. As our counterfactual comparisons illustrate, the U.S. could substantially reduce single mother poverty by expanding the welfare state. Specifically, if the U.S. increased its welfare state index to the mean or to Sweden's level, the odds of single mother poverty would decline by a factor of 3.8 or 13.3 respectively. If the U.S. increased its universal replacement rate

to those levels, the odds of single mother poverty would decline by a factor of 4.5 or 17.9. As noted above, these effect sizes are quite substantial in comparison to key individual-level variables. Although policy and demographic debates often focus on altering the behavior or characteristics of single mothers (e.g., encouraging education, employment, fewer children and marriage), welfare universalism could be an even more effective anti-poverty strategy.

Beyond social policy generally, it is universal not targeted social policy that most effectively alleviates single mother poverty. Though the targeting ratio is significantly negative when controlling for welfare universalism, its effect is modest relative to the two measures of welfare universalism. The single mother entitlement is never significant and even the targeting ratio is insignificant when universalism measures are not included in the model. Moreover, there is some evidence that targeting may be counterproductive, whereas there is no evidence that universalism is counterproductive. Weighing these various results, at least for single mother poverty, the analyses support welfare universalism over targeting.

Previous scholars have argued that welfare universalism is more effective because universalist social policies tend to be larger, in part because they garner greater political support. Welfare universalism is also associated with less poverty for all groups, thus lower single mother poverty may be a byproduct of that broader social equality. As Table 2 shows, there is a positive association between a country's overall and single mother poverty rates. There is also a positive association between a country's single mother poverty rate and the gini index of income inequality ($r=.64$, details available upon request). Notably, the two measures of targeting are negatively associated with the two measures of universalism across the 18 countries (cf. Table 2). This is consistent with Korpi and Palme's (1998) "paradox of redistribution" as countries with more targeted social policy have less generous overall welfare states. Further, welfare

universalism may alleviate single mother poverty because the complex of integrated and interdependent universal welfare programs better protects against heterogeneous risks than targeted means-tested assistance. Interestingly, we find that targeting may actually be effective in a context of welfare universalism as the targeting ratio is significantly negative in models 6 and 8 of Table 3. Plausibly, when social policy is already very generous for all citizens and the odds of poverty for all are low, it is actually beneficial if even greater benefits are directed to single mothers relative to average residents.

Future research can address the limitations of the present analysis in at least three ways. First, it would be valuable to explore these relationships with longitudinal data on individuals and/or countries. Although the LIS is cross-sectional, it offers at least five datasets for each of these countries. So, it would be feasible to investigate how single mother poverty has changed over time and whether such changes are associated with social policy. Second, with a few exceptions (e.g., Behrendt 2000), most of the literature debating the effects of targeted and universal social policies has not been empirical. As a result, it would be productive to apply this research design to other demographically vulnerable groups to assess the effectiveness of targeted social policies relative to universal social policies. Third, qualitative and mixed methods could enhance our understanding of the precise causal mechanisms linking universal welfare generosity and lower single mother poverty. Although our analyses can identify key cross-national differences, a useful research design might incorporate comparative longitudinal in-depth interviews of single mothers in countries like Denmark and the U.S.

We conclude by underlining one final implication of our study. As noted at the outset, an extensive demographic literature explores the relationship between single motherhood and poverty. Indeed, it may be reasonable to suggest that single motherhood may be the most well-

studied correlate of poverty. Although a literature exists on cross-national differences in single motherhood, a substantial share of American poverty debates about single motherhood have been based solely on studies of the U.S. Our analyses demonstrate the distinctiveness of the U.S. case, with the second highest rates of single motherhood and the highest rate of single mother poverty. This suggests that we should be cautious in generalizing from the U.S. case. Perhaps the focus on the U.S. by American poverty researchers has constrained our scope of vision about the nature and possible solutions to single mother poverty. Utilizing a cross-national comparison, our study demonstrates that the social policy context in which single mothers reside matters as much as or even more than their individual characteristics for poverty.

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Table 1. Descriptive Statistics for Variables in Analyses (N=15,116).

	<i>Mean</i>	<i>Standard Deviation</i>	<i>Sources</i>
<i>Individual-Level Variables</i>			
Poverty	.269	.443	Luxembourg Income Study
Multiple Earners in HH	.286	.452	Luxembourg Income Study
No One Employed in HH	.196	.397	Luxembourg Income Study
Head Low Education	.304	.460	Luxembourg Income Study
Head High Education	.212	.409	Luxembourg Income Study
Age Head	37.964	9.826	Luxembourg Income Study
# Other Adults	.511	.935	Luxembourg Income Study
Child Under 5 in HH	.361	.480	Luxembourg Income Study
# of Children in HH	1.696	.940	Luxembourg Income Study
<i>Country-Level Variables</i>			
Economic Growth	3.019	1.304	OECD <i>Main Economic Indicators</i>
Unemployment	5.355	1.891	OECD <i>Labor Force Statistics</i>
Welfare State Index	-.164	1.061	OECD <i>Labor Force Statistics, Eco-Sante Health Database, and Social Expenditures Database</i>
Universal Replacement Rate	22.265	7.436	Luxembourg Income Study
Targeting Ratio	1.337	.330	Luxembourg Income Study
Single Mother Entitlement	17.073	11.576	SSA <i>Social Security Programs Throughout the World</i>

Table 2. Luxembourg Income Study (LIS) Specifics and Values of Country-Level Variables.

Year	N	Single Mother Poverty Rate	Overall Poverty Rate	Single Mother/Overall Poverty Rate	Rate of Single Motherhood	Welfare State Index	Universal Replacement Rate	Targeting Ratio	Single Mother Entitlement	Economic Growth	Unemployment	
Australia	2001	528	31.25	13.01	2.40	11.67	-1.09	17.45	2.15	41.55	2.38	6.70
Austria	2000	107	17.76	7.74	2.30	6.99	.60	30.09	1.01	6.46	4.98	3.55
Belgium	2000	69	27.54	8.08	3.41	5.35	.43	29.00	1.17	4.83	2.14	9.96
Canada	2000	1645	36.23	12.37	2.93	8.26	-.47	16.28	1.53	4.91	3.73	6.79
Denmark	2000	3754	5.70	5.39	1.06	8.38	1.08	28.85	1.27	15.08	1.62	4.40
Finland	2000	307	7.82	5.43	1.44	4.29	.40	35.51	1.05	27.84	4.44	9.70
France	2000	482	26.56	7.31	3.63	7.09	.84	33.86	.94	52.61	2.20	9.30
Germany	2000	424	30.90	8.36	3.70	6.07	.72	30.70	.82	8.79	3.43	7.99
Ireland	2000	146	27.40	16.15	1.70	8.03	-1.47	19.23	1.60	31.38	6.49	4.30
Italy	2000	172	17.44	12.78	1.37	2.96	.34	28.94	.84	0.00	3.11	10.52
Luxembourg	2000	79	24.05	6.05	3.97	4.71	.07	28.87	1.04	6.18	8.84	1.87
Netherlands	1999	144	36.81	4.91	7.50	5.22	-.35	20.71	1.46	3.53	5.27	3.49
Norway	2000	491	8.76	6.45	1.36	5.19	.18	23.43	1.49	9.46	7.30	3.45
Spain	2000	148	29.05	14.16	2.05	4.07	-.36	23.87	.77	0.00	3.69	13.85
Sweden	2000	476	11.34	6.61	1.72	6.11	1.44	37.24	1.16	5.87	4.20	5.86
Switzerland	2000	111	15.32	7.67	2.00	4.37	-.72	24.75	1.67	10.62	2.32	2.61
UK	1999	1938	39.94	13.68	2.92	13.11	-1.10	22.39	1.91	6.91	2.48	6.00
USA	2000	4095	41.27	17.05	2.42	11.96	-1.56	13.40	1.11	25.68	3.29	3.97
Cross-National Mean (N=18)		24.17	9.62	2.66	6.88	6.88	-4.6E-9	25.81	1.28	14.54	3.99	6.35
Cross-National Correlation with Single Mother Poverty (N=18)			.60	.58	.53	.53	-.57	-.64	.22	.05	-.12	.07

Note: Shaded cells indicate less than 200 cases are available for the country. The population for the rate of single motherhood is all women aged 18-54.

Table 3. Generalized Linear Mixed Logit Models of Single Mother Poverty on Individual- and Country-Level Variables in 18 Affluent Western Democracies (N=15,116): Odds Ratios and (Z-Scores).

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>	<i>Model 8</i>
Individual-Level								
Multiple Earners in HH	.310*** (-14.91)	.310*** (-14.93)	.310*** (-14.90)	.310*** (-14.90)	.310*** (-14.90)	.310*** (-14.92)	.310*** (-14.93)	.310*** (-14.93)
No One Employed in HH	7.274*** (31.79)	7.266*** (31.77)	7.291*** (31.80)	7.288*** (31.80)	7.310*** (31.86)	7.269*** (31.79)	7.304*** (31.86)	7.265*** (31.77)
Head Low Education	1.701*** (9.64)	1.700*** (9.62)	1.703*** (9.64)	1.703*** (9.64)	1.703*** (9.67)	1.706*** (9.69)	1.701*** (9.66)	1.705*** (9.67)
Head High Education	.426*** (-12.07)	.425*** (-12.11)	.426*** (-12.06)	.426*** (-12.06)	.427*** (-12.04)	.427*** (-12.05)	.425*** (-12.10)	.426*** (-12.08)
Age Head	.976*** (-9.00)	.976*** (-8.98)	.976*** (-9.00)	.976*** (-9.00)	.976*** (-9.03)	.976*** (-8.99)	.976*** (-8.98)	.976*** (-8.96)
# Other Adults	.878*** (-3.59)	.878*** (-3.58)	.878*** (-3.58)	.878*** (-3.58)	.877*** (-3.62)	.879*** (-3.56)	.877*** (-3.61)	.879*** (-3.55)
Child Under 5 in HH	1.262*** (4.53)	1.262*** (4.53)	1.263*** (4.54)	1.263*** (4.54)	1.261*** (4.51)	1.262*** (4.53)	1.261*** (4.51)	1.262*** (4.53)
# of Children in HH	1.326*** (11.77)	1.327*** (11.78)	1.327*** (11.79)	1.327*** (11.79)	1.327*** (11.79)	1.327*** (11.76)	1.327*** (11.80)	1.326*** (11.76)
Country-Level								
Economic Growth	1.100 (1.04)	1.149 (1.58)	1.101 (.79)	1.104 (.84)				
Unemployment	1.116* (1.98)	1.147* (2.51)	1.071 (.84)	1.079 (1.10)				
Welfare State Index	.533*** (-3.31)				.422*** (-4.62)	.538** (-3.05)		
Universal Replacement Rate		.917*** (-3.76)					.886*** (-5.28)	.932** (-2.77)
Targeting Ratio			.872 (-.23)		.269*** (-3.23)		.207*** (-3.94)	
Single Mother Entitlement				.996 (-.27)		.987 (-1.18)		.993 (-.62)

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

Note: Constants not shown.

Table 4. Generalized Linear Mixed Models of Potential Counterproductive Consequences of Social Policy for Single Mother Poverty on Individual- and Country-Level Variables in 18 Affluent Western Democracies: Odds Ratios and (Z-Scores).

	<i>Single Mother HH (Among Women 18-54)</i>	<i>Single Mother HH (Among Women 18-54 with Children in HH)</i>	<i>Multiple Earners in HH</i>	<i>No One Employed in HH</i>	<i># of Children in HH</i>
Universal Replacement Rate	.982 (-1.33)	.983 (-1.19)	.955 (-1.67)	1.029 (1.39)	.998 (-.80)
Targeting Ratio	1.514 (1.78)	1.551 (1.75)	.394 (-1.90)	3.225*** (3.21)	1.115 (1.95)
<i>Individual-Level Controls (not shown)</i>	<i>Low Education, High Education, and Age Head</i>	<i>Low Education, High Education, and Age Head</i>	<i>Low Education, High Education, Age Head, Child Under 5, # of Children</i>	<i>Low Education, High Education, Age Head, Child Under 5, # of Children</i>	<i>Low Education, High Education, Age Head, # Other Adults</i>
N	177,498	94,556	15,116	15,116	15,116

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

Note: Constants not shown. The first four are multi-level logit models, and the last is a multi-level poisson model.

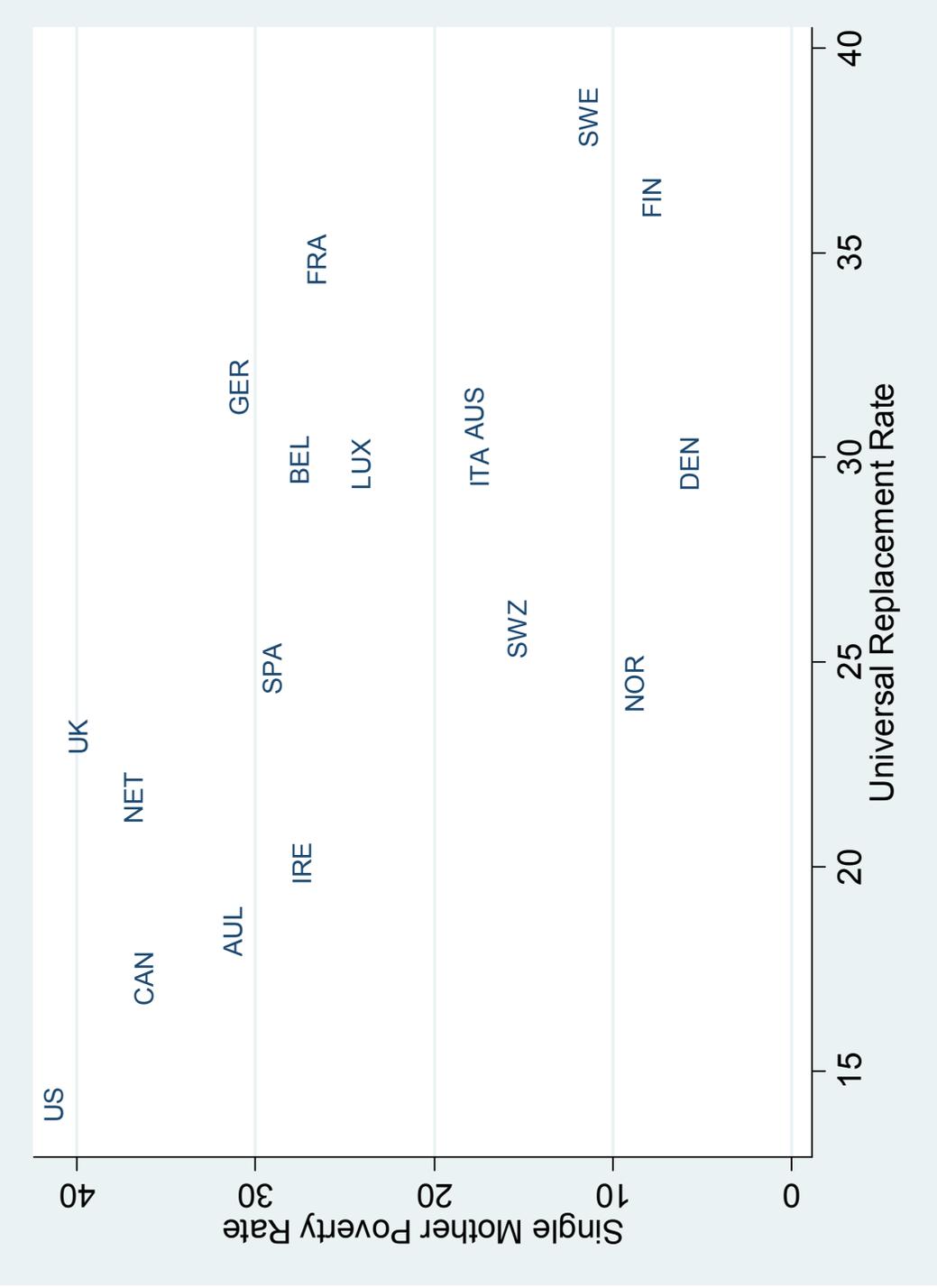


Figure 1. The Association Between Universal Replacement Rate and Single Mother Poverty Rate Across 18 Affluent Democracies Circa 2000 ($r = -.64$).



Figure 2. The Association Between Targeting Ratio and Single Mother Poverty Rate Across 18 Affluent Democracies Circa 2000 (t=.22).

Appendix I. Correlation Matrix (N=15,116).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(1) Poverty	1.000														
(2) Multiple Earners in HH	-.247	1.000													
(3) No One Employed in HH	.384	-.313	1.000												
(4) Head Low Education	.151	-.042	.226	1.000											
(5) Head High Education	-.159	.068	-.176	-.343	1.000										
(6) Age Head	-.195	.251	-.186	-.017	.120	1.000									
(7) # Other Adults	-.122	.562	-.190	.034	-.011	.263	1.000								
(8) Child Under 5 in HH	.167	-.128	.173	.061	-.098	-.367	.024	1.000							
(9) # of Children in HH	.174	.011	.091	.077	-.068	-.062	.050	.223	1.000						
(10) Economic Growth	.080	.029	-.075	-.091	.023	.072	.060	-.047	-.006	1.000					
(11) Unemployment	.020	-.082	.098	.087	.009	.071	-.021	-.090	-.057	-.031	1.000				
(12) Welfare State Index	-.288	-.043	.040	.060	-.030	-.0001	-.154	-.052	-.115	-.336	.212	1.000			
(13) Universal Replacement Rate	-.272	-.053	.036	.073	-.086	.036	-.139	-.062	-.108	-.233	.319	.935	1.000		
(14) Targeting Ratio	.057	-.131	.273	.065	-.036	-.104	-.148	.022	.035	-.077	.015	-.021	-.130	1.000	
(15) Single Mother Entitlement	.048	.036	-.072	.046	-.028	.007	.066	.019	.052	-.132	-.062	-.345	-.175	-.241	1.000

Appendix II. Generalized Linear Mixed Logit Models of **LONE MOTHER** Poverty on Individual- and Country-Level Variables in 18 Affluent Western Democracies (N=10,379): Odds Ratios and (Z-Scores).

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>	<i>Model 8</i>
Individual-Level								
Multiple Earners in HH	.559*** (-4.42)	.558*** (-4.42)	.559*** (-4.42)	.559*** (-4.42)	.559*** (-4.41)	.558*** (-4.42)	.558*** (-4.43)	.557*** (-4.44)
No One Employed in HH	7.858*** (29.84)	7.848*** (29.82)	7.874*** (29.83)	7.873*** (29.84)	7.896*** (29.89)	7.840*** (29.82)	7.884*** (29.88)	7.832*** (29.79)
Head Low Education	1.471*** (5.86)	1.470*** (5.84)	1.471*** (5.85)	1.471*** (5.85)	1.474*** (5.89)	1.476*** (5.90)	1.472*** (5.88)	1.473*** (5.87)
Head High Education	.423*** (-10.58)	.421*** (-10.62)	.422*** (-10.58)	.422*** (-10.59)	.424*** (-10.55)	.423*** (-10.57)	.421*** (-10.62)	.422*** (-10.61)
Age Head	.963*** (-8.81)	.963*** (-8.78)	.963*** (-8.82)	.963*** (-8.82)	.963*** (-8.83)	.963*** (-8.81)	.963*** (-8.79)	.963*** (-8.79)
Child Under 5 in HH	1.195** (2.72)	1.196** (2.73)	1.194** (2.72)	1.194** (2.72)	1.194** (2.71)	1.194** (2.72)	1.195** (2.72)	1.195** (2.72)
# of Children in HH	1.347*** (9.62)	1.347*** (9.62)	1.348*** (9.65)	1.348*** (9.65)	1.348*** (9.64)	1.347*** (9.61)	1.348*** (9.65)	1.347*** (9.61)
Country-Level								
Economic Growth	1.134 (1.32)	1.185 (1.82)	1.144 (1.06)	1.147 (1.12)				
Unemployment	1.110 (1.75)	1.141* (2.20)	1.068 (.78)	1.070 (.93)				
Welfare State Index	.526*** (-3.26)				.421*** (-4.32)	.532** (-3.01)		
Universal Replacement Rate		.918*** (-3.54)					.890*** (-4.52)	.932** (-2.65)
Targeting Ratio			.966 (-.06)		.293** (-2.77)		.234*** (-3.18)	
Single Mother Entitlement				1.000 (.01)		.989 (-.90)		.996 (-.34)

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

Appendix III. Generalized Linear Mixed Models of Potential Counterproductive Consequences of Social Policy for **LONE MOTHER** Poverty on Individual- and Country-Level Variables in 18 Affluent Western Democracies: Odds Ratios and (Z-Scores).

	<i>Single Mother HH (Among Women 18-54)</i>	<i>Single Mother HH (Among Women 18-54 with Children in HH)</i>	<i>No One Employed in HH</i>	<i># of Children in HH</i>
Universal Replacement Rate	1.012 (.66)	1.016 (.84)	1.023 (1.31)	.995 (-1.79)
Targeting Ratio	2.796** (3.22)	2.979** (3.35)	3.999*** (4.42)	1.090 (1.78)
<i>Individual-Level Controls (not shown)</i>	<i>Low Education, High Education, Age Head</i>	<i>Low Education, High Education, Age Head</i>	<i>Low Education, High Education, Age Head, Child Under 5, # of Children</i>	<i>Low Education, High Education, Age Head</i>
N	177,498	94,556	10,379	10,379

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

Note: Constants not shown. The first four are multi-level logit models, and the last is a multi-level poisson model. The model predicting Multiple Earners in HH (cf. third model of Table 4) cannot be estimated because lone mother households cannot have more than one earner.