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Targeting, Universalism and Single Mother Poverty: A Multi-level Analysis Across 18 Affluent Democracies

David Brady and Rebekah Burroway

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

David Brady Rebekah Burroway Duke University

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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. Although single mothers are disproportionately poor in all countries, there is even more cross-national variation in single mother poverty 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, welfare universalism could be an even more effective anti-poverty strategy.

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

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 has intensified as single mother families and their presence among the poor have risen in recent decades (McLanahan and Percheski 2008; 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 1999; Rank 2005; Seccombe 2000; Thomas and Sawhill 2002). Single mothers are particularly vulnerable because of their typically lower wages, lack of spousal support, and the burdens of raising children (Sorensen 1994; Seccombe 2000). In turn, single motherhood is 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. Others 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 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 assess whether targeted or universalist social policies can explain variation across affluent Western democracies. We 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 welfare state's centrality 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 more effectively promote social equality.

This study offers several unique contributions. First, previous studies in *Demography* on single motherhood and poverty have typically studied only the U.S. (e.g., Fitzgerald and Ribar 2004; Lichter et al. 2006; Martin 2006; Musick and Mare 2004; Wu 2008). The U.S. may be unusual in both the level of single motherhood and the likelihood of poverty among single mothers. To assess the generalizability of relationships between nonmarital fertility, union

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formation, social policies, and poverty, it is essential to broaden the scope of comparison and examine cross-national differences in single mother poverty. Second, this is one of the first multi-level, cross-national analyses 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, individual-level analyses within countries have incorporated precise data on single mothers, 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 (Brady et al. 2009; Misra et al. 2007). Third, though there has been a literature on the causes of universal versus targeted social policy (e.g., Nelson 2007), there has been little empirical research comparing their effects. Given the salience of social policy for a variety of demographic outcomes, there is a clear need for scrutiny.

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 subsidizing 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 that can be channeled into ensuring the basic security of low-income households (Collier and Dollar 2001; Squire 1993). 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).

Second, anti-poverty policies without means-testing may be counterproductive (Gilbert 2002). 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 scholars point out that gender inequalities – especially the feminization of poverty – remain resilient in societies that are relatively economically equal (Brady and Kall 2008; 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).

The Case for Universalism

Many others argue that the better approach to reducing poverty is to build a generalist, comprehensive welfare state (i.e. "universalist") (Skocpol 1991). For universalists, targeting is 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 redistributional impact (Sefton 2006; Skocpol 1992). 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; Christopher 2002; Huber et al. 2009). In fact, welfare state generosity is one of the most influential factors explaining cross-national differences in poverty (Brady et al. 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). 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 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 receiving benefits, 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.

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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 with no health insurance and greater hardship and uncertainty, or welfare with a guaranteed income and Medicaid for one's children. They explain that the 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) 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).

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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. We analyze a dataset near the year 2000 for 18 affluent Western democracies. 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.¹ This sample excludes children, elders and men living in these households. To be clear, however, we do control for other people in the household (see below). In additional analyses, we estimate all models for lone mother households (i.e., single mother households containing no other adults). The conclusions are consistent, 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.

[TABLE 1 ABOUT HERE]

¹ 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 other adults and multiple earners in the household and by estimating 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.

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; Brady et al. 2009; DeFina and Thanawala 2003; Moller et al. 2003; Rainwater and Smeeding 2004; Smeeding 2006). An individual is defined as poor = 1 (non-poor = 0) if s/he resides 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."² 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. 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. At the end of the results, we discuss alternative dependent variables.

The analyses incorporate several demographic variables. Because households have multiple members and pool resources and expenses, several individual characteristics are measured at the household-level. We include binary variables for *No One Employed* 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).³ Next, we control for the *Age* of the head and a binary variable for *Child Under 5*.⁴ We also include the *# of Other Adults* and *# of Children* under 18 in the household.

Country-Level Data

We use several archival sources, though Huber and colleagues (2004) are often the proximate source. Table 2 shows the values of the country-level variables, and details on the LIS

² 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).

³ The categories are: a) less than secondary (low), b) secondary or some tertiary (medium), and c) completed tertiary or more (high). Unfortunately, the LIS does not provide sufficient detail to code vocational/technical secondary education.

⁴ 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.

and poverty rates. Except for 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 real purchasing power parity (PPP) dollars. *Unemployment* is the percent of the labor force without employment.

To assess 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 measuring the amount of targeted cash assistance a single mother with one child (under 3 years old) would receive if she was not employed.⁵ We tabulate family assistance, child rearing, and other cash benefits in current local currency, and then divide by the median equivalized household income from the LIS.⁶ Thus, this 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.⁷ This measures the means-tested cash assistance officially targeted for single mothers.

The second measure of targeting is the *Targeting Ratio*, which follows the literature on "targeting efficiency" (Creedy 1996; Kakwani and Subbarao 2007; Mahler and Jesuit 2006) and

⁵ Slightly more than a third of the sample has a child under 5 and the average single mother household has 1.7 children (see Table 1). We define targeted benefits for a mother with a child under 3 because this maximizes the value of targeted benefits, giving this measure the best chance of being consequential (i.e., 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 is difficult to reduce these to one estimate per country.

⁶ For the U.S., this is the mean benefit of Temporary Assistance to Needy Families (TANF) across states. One could add Women Infant and Children (WIC). However, we were unable to identify any cross-national source on means-tested in-kind benefits. We did not include food stamps and/or housing assistance as those are means-tested for all and not targeted for single mothers. Adding in-kind benefits in the U.S. would only raise the already above average single mother entitlement and thus would lead to an even less significant effect (cf. Tables 2-3 below).

⁷ 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 (it is targeted at the unemployed). Moreover, many single mothers have not been previously employed long enough to qualify for unemployment insurance.

others' estimation of benefits in the micro-data of the LIS (Behrendt 2000; Mahler and Jesuit 2006; Smeeding 2006). This measure calculates the equivalized value of total government assistance received by single mother and all households in each country in the LIS.⁸ We then estimate the ratio of benefits received by single mother households over those received by all households. This assesses whether single mothers receive disproportionate benefits compared to the overall population. 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 gauges the total actual benefits received by a targeted group.⁹

For the first measure of universalism, we construct a *Welfare State Index*. This comprehensive index of welfare generosity is a standardized scale (mean=0, s.d.=1 across the 18 countries) of social welfare expenditures, social security transfers and government expenditures as a percent of GDP, and public health spending as a percent of total health spending (alpha=.87).¹⁰ This index incorporates several classic measures of welfare generosity, and combines measures that others have shown significantly influence cross-national variation in poverty (e.g. Brady 2009; Brady et al. 2009; Huber and Stephens 2001; Moller et al. 2003).

As a second measure of universalism, we calculate the *Universal Replacement Rate*. Like the targeting ratio, this utilizes the actual government assistance received based on the LIS. We estimate the mean equivalized total government assistance (social insurance plus social

⁸ "Total government assistance" sums social insurance, social assistance transfers, alimony and child support. To equivalize this measure, we divide by the square root of household members. We tested several derivations of this measure and the results are robust (e.g. concentrating on social assistance targeted to low-income households and adding or subtracting social insurance, alimony/child support, child/family benefits, unemployment compensation, and maternity/family leave benefits). We present the comprehensive measure as there is often targeting implicit in what are statutorily considered universal programs.

⁹ Yet another alternative would measure the mean total government assistance received by single mothers (in each country standardized over the median) that is *not* received by the general population. This "absolute" measure of targeted benefits would be the difference between what the target group and general population receive. In analyses available upon request, this produces results nearly identical to the targeting ratio.

¹⁰ 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.

assistance) received for all households in each country. We then convert this into a percent of the median equivalized household income. Thus, this is the average percent of median income that typical residents of a country receive from the state.

Multi-Level Modeling Technique

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 (estimated in Stata). Mixed logit models predict whether an individual is poor based on a set of individual- and country-level variables. We estimate a random intercept model that can be expressed as two equations. First, the log odds of being poor (log $(p_{ij}/1-p_{ij}))$ for the ith individual in the jth country is represented by eta (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 ($\gamma_0 Cj$), a set of country-level variables (γC_i) and an error term (u_{0i}):

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

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

Appendix I contains a correlation matrix. There is no evidence of collinearity among individual-level or country-level variables. Because there are only 18 countries, it is important to keep the models parsimonious at level 2. As discussed below, when we include two social policy variables in one model, we omit the economic context variables. Nevertheless, even if we

include the economic context variables with the two social policy variables, the results are robust (analyses available upon request).

RESULTS

Descriptive Patterns

Table 2 displays the cross-national patterns in single mother poverty and the countrylevel variables.¹¹ Across the 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 than in overall poverty (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 has a single mother poverty rate of only 3.4 percent. By far, the U.S. has the highest poverty rate 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), and 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, which is consistent with core claims in 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. Only

¹¹ We also include the N's for each country. The shaded cells indicate countries where our sample includes less than 200 cases. For these, the mean level of single mother poverty should be read with caution (e.g. the Netherlands).

Denmark has a single mother-to-overall poverty ratio near one. Despite having the highest single mother poverty rate, the U.S. is slightly below the mean in this ratio. Thus, one reason for the high rate of single mother poverty in the U.S. is simply the high overall poverty rate.

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

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 results partly because the single mother entitlement is insufficient to lift a family out of poverty in every country except France.¹² In all other countries, a single mother household relying exclusively on government benefits will have an income below the poverty threshold. Although the welfare state index and universal replacement rate closely correspond to wellknown patterns in welfare generosity among affluent democracies (Hicks 1999; Huber and Stephens 2001), both measures of targeted welfare 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

¹² 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.

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]

It is also instructive 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 guaranteed any welfare benefits solely for being a single mother.¹³ 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.

¹³ 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.

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 Italy and Sweden are below the cross-national mean. Thus, the descriptive patterns suggest universalism more effectively reduces single mother poverty than targeting.

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 1.24. 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. 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 insignificant in models 3 and 4.

In model 1, the welfare state index is significantly negative. 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 index's effect more than offsets the 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's effect is comparable to the welfare state index and larger than several demographic controls.

Model 3 shows that the targeting ratio is negatively signed but 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 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.

The next models omit the two economic controls in order to maintain parsimony at level 2 with only 18 countries.¹⁴ 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 model 5. For a standard deviation increase in the welfare state poverty decline by a factor of 1.5. Thus, targeting appears to significantly reduce single mother poverty when controlling for welfare universalism, although the effect of targeting is smaller than the effect 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 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.

¹⁴ 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.

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 decline by a factor of 3.8 (i.e. 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 single mothers 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 (i.e. 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 determine whether social policy has counterproductive effects, Table 4 assesses the effects of the universal replacement rate or the targeting ratio on 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 model 3.¹⁵

[TABLE 4 ABOUT HERE]

The first two models assess whether social policy influences 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, universal social policy does not encourage single motherhood. Because the targeting ratio is also 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.¹⁶

The last three models assess whether social policy discourages having multiple earners, or encourages disemployment or having more children. 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). 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

¹⁵ These models are intentionally parsimonious, including only a few individual-level controls. The results are not sensitive to including other individual-level controls. Though we include both social policy measures in the same models, the results are robust if modeled separately. The first four are multi-level logit models and the last is a multi-level poisson model.

¹⁶ 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.

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. Single mothers may receive greater welfare benefits because they are more likely to be unemployed, so the targeting ratio is probably positively influenced by unemployment differences between single mothers and others. Ultimately, there is 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.

Finally, we also considered alternative measures of the economic standing of single mothers. Appendix IV shows the effects of social policy on two alternative measures of poverty (40% and 60% of the median) and three measures of household income (a binary measure of whether income is greater than the median, and the ratios of income or logged income over the median). While social policy does not affect whether a single mother household has an income greater than the median, the other alternatives present results consistent with those above.

CONCLUSION

This study provides one of the first multi-level, cross-national analyses of single mother poverty. Incorporating data on 18 affluent democracies, we assess the effects of individual characteristics and social policy. We show that single mothers are disproportionately more likely to be poor in all 18 countries. Our analyses reveal that both individual characteristics and social policy shape single mother poverty. Single mother households with multiple earners, welleducated 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 is that 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. 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. 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 large in comparison to the 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.

In addition, universal social policy is much more effective than targeted social policy. Though the targeting ratio is significantly negative when controlling for welfare universalism, its effect is modest relative to the two measures of welfare universalism. Single mother entitlement is never significant and the targeting ratio is insignificant when universalism measures are omitted from 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, the analyses support welfare universalism over targeting for reducing single mother poverty.

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. 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 overall and single mother poverty rates. There is also a positive association between single mother poverty rates and the gini index of income inequality (r=.64, details 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 generous for all citizens and the odds of poverty for all are low, it may be beneficial if even greater benefits are directed to single mothers relative to average residents.

Future research can address the limitations of the present analysis. 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 these 18 countries and one could investigate how single mother poverty and social policy have changed over time. Second, with a few exceptions (e.g., Behrendt 2000), the literature on targeted and universal social policies has not been empirical. As a result, it would be productive to apply this research design to other vulnerable groups to assess the effectiveness of targeted and universal social policies. Third, qualitative and mixed methods could enhance our understanding of the mechanisms linking universal welfare generosity and lower single mother poverty. It would be particularly valuable to incorporate comparative longitudinal in-depth interviews of single mothers in countries like Denmark and the U.S. Finally, since the 1990s, U.S. social policy has perhaps become less targeted at single mothers – with the decline of AFDC and the rise of the EITC,

Food Stamps and other tax credits. Nevertheless, eligibility often varies depending on parental employment. Thus, there continues to be a need for research on how U.S. social policy provides incentives and disincentives for employment among parents.

We conclude by underlining one central implication of our study. As noted at the outset, an extensive demographic literature explores the relationship between single motherhood and poverty. Indeed, it would be reasonable to suggest that single motherhood may be the most wellstudied correlate of poverty. Although a literature exists on cross-national differences in single motherhood, most of American poverty debates about single motherhood have been based solely on studies of the U.S. Our analyses demonstrate how unusual the U.S. case is, with the second highest rates of single motherhood and the highest rate of single mother poverty. This suggests that we should be much more 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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	Mean	Standard Deviation	Sources
Individual-Level			
Variables			
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
Country-Level Variables			
Economic Growth	3 019	1 304	OECD Main Economic Indicators
Unemployment	5 355	1 891	OECD Labor Force Statistics
Welfare State Index	164	1.061	OECD Labor Force Statistics, Eco-Sante Health Database, and Social Expenditures Database
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 Social Security Programs Throughout the World

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

	Year	N	Single Mother	Overall Poverty	Single Mother/	Rate of Single	Welfare State	Universal Replacement	Targeting Ratio	Single Mother	Economic Growth	Unemployment
			Poverty	Rate	Overall	Mother-	Index	Rate		Entitlement		
			Rate		Poverty	hood						
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	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-			24.17	9.62	2.66	6.88	-4.6E-9	25.81	1.28	14.54	3.99	6.35
National Mean (N=18)												
Wiedii (IV 10)												
Cross-				.60	.58	.53	57	64	.22	.05	12	.07
National												
Correlation												
with Single												
Mother												
Poverty												
(N=18)												

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

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.

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

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). _

*** p<.001 ** p<.01 Note: Constants not shown. * p< .05

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

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

*** 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 (r=.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	247	1.000													
(3) No One	.384	313	1.000												
(4) Head Low	.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

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

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).

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

1.012 (.66) 2.706**	1.016 (.84)	1.023	.995
2 706**		(1.31)	(-1.79)
(3.22)	2.979** (3.35)	3.999*** (4.42)	1.090 (1.78)
Low Education, High Education, Age Head	Low Education, High Education, Age Head	Low Education, High Education, Age Head, Child Under 5, # of Children	Low Education, High Education, Age Head
177,498	94,556	10,379	10,379
	Low Education, High Education, Age Head 177,498	Low Education, High Education, Age Head 177,498 94,556	Low Education, High Education, Age HeadLow Education, High Education, Age HeadLow Education, High Education, Age Head, Child Under 5, # of Children177,49894,55610,379* m< 05

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

*** p < .001 ** p < .01 * p < .05Note: 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.

	Income > 40% of Median	Income > 60% of Median	Income>Median	Income/Median	Logged Income/Median
Individual-Level					
Multiple Earners in HH	.923***	.847***	1.133***	.158***	.228***
-	(-11.09)	(-18.32)	(16.79)	(20.94)	(21.37)
No One Employed in HH	1.237***	1.497***	.933***	200***	418***
	(28.86)	(43.78)	(-9.15)	(-26.14)	(-38.53)
Head Low Education	1.043***	1.119***	.939***	088***	111***
	(6.60)	(14.17)	(-9.59).	(-13.28)	(-11.89)
Head High Education	.949***	.878***	1.162***	.165***	.198***
	(-7.42)	(-14.82)	(20.83)	(22.49)	(19.09)
Age Head	.998***	.995***	1.002***	.003***	.005***
	(-5.32)	(-14.00)	(6.21)	(10.49)	(11.24)
# Other Adults	.987***	.965***	1.073***	.068***	.079***
	(-3.64)	(-8.05)	(19.67)	(18.72)	(15.20)
Child Under 5 in HH	1.014*	1.029***	1.002	019**	029***
	(2.22)	(3.84)	(.34)	(-3.09)	(-3.28)
# of Children in HH	1.033***	1.052***	.965***	048***	070***
	(11.35)	(14.19)	(-12.13)	(-16.11)	(-16.82)
Country-Level					
Universal Replacement Rate	.987***	.984***	1.002	.007**	.017***
	(-7.81)	(-7.25)	(.84)	(3.00)	(6.27)
Targeting Ratio	.814***	.814***	1.053	.124**	.289***
	(-7.05)	(-5.20)	(1.17)	(2.83)	(6.03)

Appendix IV. Generalized Linear Mixed and Mixed Logit Models of Alternative Dependent Variables for Single Mothers in 18 Affluent Western Democracies (N=15,116): First Three Columns - Odds Ratios and (Z-Scores); Last Two Columns - Coefficients and (T-Scores).

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

Note: Constants not shown.