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# Nearly universal, but somewhat distinct: The feminization of poverty in affluent Western democracies, 1969–2000 <sup>☆</sup>

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## Abstract

Our study extends research on the feminization of poverty by analyzing the variation in women's, men's, and feminized poverty across affluent democracies from 1969 to 2000. Specifically, we address three issues. First, we provide more recent estimates of adult women's and men's poverty and the ratio of women's to men's poverty with two different poverty measures. We suggest that by incorporating the elderly, the feminization of poverty may be greater than previously estimated. The feminization of poverty is nearly universal across affluent Western democracies 1969–2000. Second, we show that women's, men's and overall poverty are highly correlated, but the feminization of poverty diverges as a distinct social problem. Third, we find that women's, men's and overall poverty share several correlates, particularly the welfare state, though some differences exist. At the same time, several of our findings differ with past research. The feminization of poverty is only influenced by social security transfers, single motherhood and the sex ratios of the elderly and labor force participation. While power resources theory probably best explains women's, men's and overall poverty, structural theory may best explain the feminization of poverty. We conclude by discussing how analyses of the feminization of poverty contribute to debates on poverty and gender inequality.

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## 1. Introduction

One of the major developments in the study of inequality has been the concept of intersectionality (Glenn, 2002). Intersectionality emphasizes that social divisions like gender and class are better understood in relation to and mutually constitutive of each other, rather than as separate axes. The study of social hierarchies is enhanced by seeking out intersections and configurations of two or more social hierarchies (McCall, 2001). While much of this literature concerns the social construction of linked identities in historical cases, the general theme of relations between gender and class informs the study of inequality. Perhaps the dominant cross-national approach at the intersection of gender and class focuses on gender inequality at work (Gornick, 1999; McCall

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and Orloff, 2005). Many scholars show cross-national variation in sex segregation at work (Chang, 2004; Charles, 2005; Charles and Grusky, 2004), the sex pay gap (Blau and Kahn, 2003), or women's labor force participation (Pettit and Hook, 2005). Just as the cross-national study of gender and work has made tremendous contributions, we suggest that other intersections of gender and class can inform our understanding of inequality.

In this study, we propose that the feminization of poverty is a useful alternative perspective on cross-national variation in the intersection of gender and class (Misra, 2002). In recent years, much has been learned about the feminization of poverty: women are more likely to be poor than men, US feminization of poverty fluctuates over time (Bianchi, 1999; McLanahan and Kelly, 1999) and across racial/ethnic groups (Elmelech and Lu, 2004), and the feminization of poverty varies cross-nationally (Casper et al., 1994). Many have calculated the extent of women's and feminized poverty and evaluated family, market and state causes (Christopher, 2002b; Christopher et al., 2002). Following pioneering feminist scholarship, the feminization of poverty has been established as a social fact (Elmelech and Lu, 2004; Gordon, 1994; Pearce, 1978; Sidel, 1986).

Relatively neglected empirical strategies present one means for this area to advance. One such strategy involves systematically examining the macro-level variation in women's, men's and feminized poverty. A few scholars have begun to do so. For example, Huber et al. and her colleagues (2004) analyze the variation in single mother poverty across affluent Western democracies from the 1970s to 1990s ( $N = 71$ ). As mentioned above, many examine the extent of the feminization of poverty in a cross-section of countries at one point in time (Casper et al., 1994; Christopher et al., 2002; Wiepking and Maas, 2005). Nevertheless, further research on the macro-level variation in women's, men's and feminized poverty can facilitate our understanding of the intersection of gender and poverty. While many interesting claims exist in the literature, a lot of the evidence has only been suggestive. Further systematic analyses involving a more comprehensive sample of countries and years could offer new insights into the associations between and covariates of these dimensions of poverty.

Our study empirically analyzes the cross-national and historical variation in women's and men's poverty and the feminization of poverty in 18 affluent Western democracies from 1969 to 2000. Our study is based on the largest sample of country-years of any study of this kind ( $N = 93$ ). The greater information contained in this larger sample allows us to draw more clear conclusions about the patterns in and more precisely compare the correlates of women's, men's and feminized poverty. In this study, we focus on three research questions. First, what is the extent of women's, men's and feminized poverty in affluent Western democracies? Second, do overall, women's, men's and feminized poverty cohere or diverge in affluent Western democracies? Third, do women's, men's and feminized poverty have "similar causes?"

## 2. Background

### 2.1. The extent of women's, men's and feminized poverty

Following Pearce's (1978) coining of "the feminization of poverty," much of the literature focuses on estimating the extent of women's poverty relative to men's. Casper and colleagues (1994) show that US women were 41% more likely to be poor than men in the mid-1980s. Because women are disproportionately represented among the poor, poverty is "feminized."<sup>1</sup> Recent studies confirm that in most affluent democracies women are more likely to be poor, while in a few (e.g. Sweden) women are less likely to be poor (Christopher et al., 2002; Pressman, 1998; Wright, 1995). Much research focuses exclusively on the feminization of poverty in the US (Elmelech and Lu, 2004; McLanahan and Kelly, 1999; McLanahan et al., 1989).

Despite these contributions, there are two reasons to scrutinize further the extent of feminized poverty. First, advances in poverty measurement have not been fully integrated. Justifiably, international research in this area overwhelmingly uses a relative measure (Brady, 2003a; DeFina and Thanawala, 2004; Hagenaars, 1991; Osberg and Xu, 2000; Sen, 1999).<sup>2</sup> Smeeding and colleagues (2001: 164, 166) explain, "For purposes

<sup>1</sup> A few different definitions for the "feminization of poverty" exist (Bianchi, 1999). We use the conventional meaning: the ratio of women's poverty over men's poverty. When this ratio is greater than 1, poverty is feminized.

<sup>2</sup> Proponents of relative measures contend they are: (i) more valid measures of prevailing conceptualizations of poverty like social exclusion, capability deprivation and resources to needs; (ii) more reliable for cross-national and historical comparisons; (iii) more realistic in affluent democracies where almost the entire population is not vulnerable to threats to basic needs (e.g. absolute measures like health); and (iv) extant absolute measures suffer from greater limitations.

of international comparison, poverty is almost always a relative concept.” Despite the consistent use of relative measures, almost all of this international research uses a relative headcount measure and in turn neglects the depth of poverty (except Wright, 1995). Somewhat disconnected from the international research, unfortunately, US-specific research mostly relies on the official US measure. As has been well documented, the official measure suffers from several limitations (Betson and Warlick, 1998; Citro and Michael, 1995; Foster, 1998; O’Connor, 2001). Building on the international research, it would be valuable to reassess the extent and trends in the feminization of US poverty with a relative measure.

Second, the vast majority of international studies on the feminization of poverty concentrate on the working age population (e.g. Casper et al., 1994). We fully appreciate that there are several legitimate reasons to focus on the working-aged, including a more precise analysis of mechanisms, and a focus on the role of sex inequality at work and in child rearing. Still, it would be valuable to encompass the elderly in estimates of women’s and men’s poverty as a complementary alternative. Doing so, of course, has consequences for one’s estimates of the feminization of poverty. It might surprise some readers that we are arguing on behalf of including the elderly in our estimates of women’s and men’s poverty. After all, it is commonly understood that with the official US measure the elderly are much less likely to be poor than other demographic groups. Even if true, if one makes claims about the feminization of poverty it would be valuable to compare all adults—working age and elderly—and hence estimate the extent of feminization of poverty in the entire adult population. Again, we entirely appreciate the value of focusing on the working-aged, but we suggest analyses of all adults may be valuable as well.

More importantly, however, recent research with other poverty measures has shown that the elderly are actually more likely to be poor than working age adults (Brady, 2004; Rainwater and Smeeding, 2004; Short and Garner, 2002; Smeeding et al., 2001). Earlier conclusions about the elderly being less likely to be poor were probably a by-product of the flawed official US measure of poverty. Using a relative measure changes the story entirely. The elderly are disproportionately poor and trends in US poverty are quite different with a relative measure (Betson and Warlick, 1998; Brady, 2003a, 2004). There are more elderly women than elderly men, and elderly women are more likely to be poor (Bianchi, 1999; McLanahan and Kelly, 1999; Rank and Hirschl, 2001; Stone, 1989). As a result, including the elderly may significantly affect estimates of the feminization of poverty. Of course, noticing elderly women’s poverty is not new—Pearce (1978) even called attention to it—but attention to elderly poverty has somewhat declined in international research on the feminization of poverty. Hence, research that incorporates the elderly would be valuable.

## 2.2. *Coherence or divergence between dimensions of poverty*

In Sassoon’s (1996) history of the West European Left, a recurring theme is the tension between traditional commitments to economic egalitarianism and emerging expectations for gender equality. A related theme in the feminization of poverty literature has been the apparent divergence between women’s, men’s and overall poverty. Partly, these concerns are due to the perception that women’s poverty, and in turn the feminization of poverty, is a unique social problem, with distinct or particularly complicated causes. Partly, these concerns are a product of the uncertainty over whether economic and gender egalitarianism are compatible. One question that remains unresolved is how much cross-national and historical patterns in poverty diverge or cohere for women, men and the overall population. In general, we know little about whether countries with high overall poverty are also likely to have high women’s or men’s poverty. Moreover, we do not know how much the feminization of poverty covaries with overall poverty. Despite the paucity of research on these precise questions, one can discern two perspectives on this issue.

Some scholars seem to assert that the extent of societal gender inequality is a function of the extent of overall economic inequality (Blau and Kahn, 2003). In an influential paper, Blau and Kahn (1992) showed that countries with greater returns to skill and greater earnings inequality tend to have greater gender pay differences. Since women are positioned less favorably in the labor market, they conclude that the high wage inequality in the US is the primary cause of its relatively high gender pay gap. Christopher and colleagues (2002) offer a similar view as an account for low rates of women’s poverty in social democracies. Wright (1995) finds a positive correlation between overall poverty and the female share of the poor across 11 affluent democracies in the mid-1980s. To the extent that these findings reflect a broad consistency between economic

inequality and gender inequality, one would expect that overall, women's, men's and feminized poverty cohere with each other.

Other scholars are less confident that economic egalitarianism will ensure gender equality and point to resilient gender inequalities in societies that are relatively economically equal (Misra, 2002; Sainsbury, 1999). As McCall (2001) contends, gender inequality is not simply reducible to overall economic inequality. Many of the social democratic and Christian democratic welfare states that accomplished low overall poverty and economic equality also maintained traditional breadwinner gender roles and low female labor force participation (Bussemaker and van Kersbergen, 1999). Orloff (1993) has explained that many egalitarian West European welfare states do not provide autonomy for women—the capacity to form economically sustainable independent households—and as a result leave women economically vulnerable. The implication is that women's and feminized poverty are distinct from the economic standing of working men (Meyers and Gornick, 2001). Plausibly, in a country where poverty is very low for adult men and children, but is higher for adult women, that country could maintain low overall poverty even though the feminization of poverty would be great.

### 2.3. Feminist critiques of “Similar Causes”

A growing body of research examines the correlates of macro-level variation in poverty across affluent Western democracies (Brady, 2005, 2006; Kenworthy, 1999; Moller et al., 2003). This research builds on the established tradition of international microanalyses of poverty (Rainwater and Smeeding, 2004).<sup>3</sup> This research contributes greatly and most correlates of overall poverty are associated with elderly and child poverty, for example (Brady, 2004). However, there are strong theoretical reasons to be skeptical that the sources of overall poverty are the same as the sources of women's, men's and feminized poverty. The most convincing case emerges from feminist studies of the welfare state (Misra, 2002). Feminist scholars of the welfare state contend that the welfare state disproportionately benefits men, strengthens patriarchy, and does not enhance women's autonomy (Gordon, 1994; Meyer, 1990, 1994; Orloff, 1993). Rather than facilitating gender equality along with class equality, the welfare state reinforces gender hierarchies. Plausibly, we can extend the feminist critique to poverty. Orloff's (1993) concern with women's autonomy parallels poverty researchers' concern with the autonomy of those socially excluded and capability deprived (Sen, 1999)—because poor women are effectively not autonomous to form an independent household. Since the concern with autonomy has guided cross-national research on gender and work, it should inform cross-national research on poverty. Based on such feminist critiques, our general hypothesis is that the social forces influencing overall poverty will not influence women's, men's and feminized poverty consistently. If the welfare state reinforces gender inequality—even in the pursuit of class equality—the macro-level sources of overall poverty should affect these dimensions of poverty differently.

Previous macro-level studies identify three theories for macro-level variation in poverty: liberal economic, structural and power resources. Liberal economics focuses on the benefits of economic growth, and argues poverty covaries with unemployment and productivity (Brady, 2003b). Structural theory is a compositional explanation emphasizing vulnerable family arrangements and labor market circumstances that put people at risk of poverty. Power resources theory concentrates on the redistributive influence of generous welfare states and working-class mobilization (Moller et al., 2003). Arguably, each theory has not fully considered the feminization of poverty.

Liberal economic explanations of macro-level variation in poverty are based on the assertion that “A strong macroeconomy matters more than anything else” (Blank, 2000: 6). Economic growth raises the earnings of the poor and lifts households out of poverty, and poverty should follow economic performance (Sawhill, 1988). Also, unemployed workers are more likely to be poor, and when unemployment rises, the earnings of the employed are depressed. Liberal economists generally advocate for expanded

<sup>3</sup> We see the rich micro-level tradition as informing and guiding our study. We see micro-level and macro-level approaches as complementary and not competitive. There are some questions that micro-level studies are simply better suited to address (see, e.g. Elmelech and Lu, 2004; Christopher et al., 2002). For example, a precise analysis of family structure or the gender pay gap might be better done at the micro-level. But, we propose that macro-level analyses are valuable as well. For example, comprehensive analysis of cross-country and historical patterns (like this one) might be better done at the macro-level. Hopefully, future micro-level studies can explore issues we cannot fully address.

education to raise human capital as the best strategy to combat poverty, and this should be reflected in average productivity. Unemployment levels and the level of productivity (i.e. gross domestic product per capita) are associated with national poverty levels among the working-aged (Kenworthy, 1999; Moller et al., 2003). But, sociological evaluations of liberal economics have been critical, and suggest economic growth, productivity and unemployment have only modest influence on macro-level variation in poverty (Brady, 2003b). Though some examine human capital or economic growth (Elmelech and Lu, 2004; Wiepking and Maas, 2005), no study has fully tested how liberal economic variables are comparatively associated with women's, men's and feminized poverty.

Structural theory is a compositional explanation: the more people in vulnerable demographic or labor market circumstances, the more poverty exists (Brady, 2006). In this sense, structure refers to the set of labor market opportunities and/or demographic propensities that characterize the population's likelihood of being poor. Sociologists have shown that labor market factors like manufacturing employment and female labor force participation have substantial effects on national levels of poverty (Brady, 2006). Female labor force participation and women's part-time work may alleviate gender inequality (Gornick and Meyers, 2003). Though these labor market factors may be relevant to both women's and men's poverty, it is plausible that manufacturing should influence men's disproportionately and female labor force participation should do the same for women's (Bianchi, 1999; Gornick, 1999; McCall, 2001). Among demographic structural factors, single parenthood has received great attention in the feminization of poverty literature (Bianchi, 1999) and some link probably exists between single parenthood and women's poverty (Christopher et al., 2002; McFate et al., 1995). Yet, single parenthood has been found to be only a minor influence on overall poverty (Brady, 2006) and insignificant for working age adult poverty (Moller et al., 2003). Further, recent analyses suggest single parenthood is probably not the central source of the feminization of poverty—even in the working age population (Casper et al., 1994: 599; Christopher, 2002b). In addition, the age composition of the population might be salient. Since children typically generate greater economic needs than resources, and women are normally the principal caregivers, the percent of the population children might contribute disproportionately to women's poverty (Sainsbury, 1999). Finally, the percent of the population elderly and the elderly sex ratio might influence women's poverty disproportionately since women are more likely to be widows and widows are more likely to be poor (McLanahan and Kelly, 1999). At the same time, elderly population size has a modest effect on overall poverty and it remains unclear if large elderly populations contribute to poverty since generous welfare states alleviate economic insecurity over the life cycle (Brady, 2006; Esping-Andersen, 1999).

Recently, power resources theory has emerged as the leading explanation of cross-national and historical variation in overall poverty (Brady, 2005; DeFina and Thanawala, 2004; Kenworthy, 1999; Moller et al., 2003; Nolan et al., 2000). Less poverty results because generous welfare states insure against economic insecurity and redistribute resources downward in the income distribution (Esping-Andersen, 1999; Huber and Stephens, 2001; Korpi and Palme, 1998). Despite powerful effects on overall poverty, the welfare state literature suggests that women may benefit less from welfare generosity (Christopher, 2002a; Meyer, 1990, 1994; Misra, 2002; Orloff, 1996; Sainsbury, 1999). Feminists show that the welfare state fails to ensure that single mothers can form economically secure autonomous households (Huber et al., 2004; Kilkey and Bradshaw, 1999). As Orloff (1993: 314) explains: "Power resources analysts have focused on the effects of state social provision on class hierarchies, but have ignored its effect on gender hierarchies." As well, there may be discrepancies between the welfare state's influence on gender equality and reduced poverty. While public employment contributes to gender equality and may benefit low-income women (Gornick, 1999; Gornick and Jacobs, 1998), Brady (2005) finds that public employment does not significantly reduce poverty. Last, labor market institutions and women in parliament, political causes of welfare generosity, might channel through or combine with the welfare state to reduce poverty, and even potentially reduce the feminization of poverty (Brady, 2003c; Huber and Stephens, 2001; Sainsbury, 1999). Indeed, Blau and Kahn (2003) show that labor market institutions (e.g. unionization, corporatism, etc.), originally motivated for earnings equality, reduce the gender pay gap.

Ultimately, there is a great deal of uncertainty on whether correlates of overall, women's, men's and feminized poverty are similar or different. Empirical research is needed to assess how much liberal economic, structural and power resources variables are associated with each.

### 3. Methods

#### 3.1. Dependent variables

The Luxembourg Income Study (LIS) provides data on poverty. The LIS provides cross-nationally and historically comparable individual-level, nationally representative data sets with standardized data on household income. We conducted original analyses with 93 datasets from 18 affluent Western democracies from 1969 to 2000.<sup>4</sup> In each of the 93 datasets, we calculated relative poverty based on household income after taxes and transfers and adjusted for household size.<sup>5</sup> The LIS data has significant advantages over the official US measure because it includes a much more comprehensive definition of household income (Brady, 2003a; Smeeding et al., 2001).<sup>6</sup> The official US measure ignores in-kind benefits, near-cash benefits and some cash benefits, is based on gross income before taxes, has a crude household size adjustment, and has a threshold that is unjustifiably low. Along with rectifying these problems, the LIS has a much more comprehensive and valid definition of household income.

We estimate two relative poverty measures for women and men. The first is the *headcount*: the percent of population residing in a household with less than 50% of the median income. The second is *poverty intensity*: the product of the headcount and the average depth of poverty (the difference between the median in the sample and the mean of the poor sub-sample, standardized by the median in the sample).<sup>7</sup> The headcount is a rate, while intensity synthesizes the rate and average depth of poverty into one index. Almost all international studies of the feminization of poverty use a relative headcount. Wright (1995) is the only study we are aware of that analyzed intensity—and his study is confined to a cross-section of 11 countries in the mid-1980s.

To measure the feminization of poverty, we estimate *sex ratios* of headcount and intensity, dividing women's headcount or intensity by men's headcount or intensity. In Appendix B, we present analyses of headcount and intensity for the overall population. Our estimates of headcount poverty are the official LIS estimates of relative poverty. Our estimates of intensity are an updated and revised version from Brady (2003a).

In most of our analyses, we present headcount and intensity among all adult women and men (18 years and older). A common alternative is to calculate women's and men's poverty only among working age adults (18–64 years old) and as a result exclude the elderly. As we explained above, we offer our analyses of the entire adult population as a complementary alternative to the typical focus on the working-aged. As we show below, confining our estimates of women's and men's poverty only to the working-aged has the consequence of underestimating the feminization of poverty in most countries.<sup>8</sup> Nevertheless, our conclusions are entirely consistent in analyses of the working age population (see Appendix E).

<sup>4</sup> We thank Teresa Munzi for helping to write the programs (see Appendix D). This dataset include observations for Australia (4), Austria (4), Belgium (4), Canada (8), Denmark (2), Finland (4), France (5), Germany (8), Ireland (5), Italy (8), Luxembourg (5), The Netherlands (5), Norway (5), Spain (2), Sweden (6), Switzerland (2), UK (8), US (7). These represent the LIS datasets on these countries in December 2004. A list of the years of the datasets is available at [www.lisproject.org](http://www.lisproject.org).

<sup>5</sup> The LIS variable DPI is our measure of household income (standardized by the square root of household members). Some might problematize the use of household income to calculate women's and men's poverty, since this mixes wife's/husband's poverty and single adult poverty. This may limit our interpretation of the feminization of poverty and intersectionality debates generally. Nevertheless, we chose to measure poverty at the household level since it is generally perceived to be a more valid measure of an individual's economic standing.

<sup>6</sup> Since we start with individual-level data, some might question why we do not conduct a multi-level analysis of individuals nested within countries. We encourage such research in the future, but feel there is a need for and value in macro-level analysis as well. Several exemplary micro-level studies exist, but no study has tried to analyze all of the macro-level cross-national and historical variation in the feminization of poverty. Given the longstanding interest in macro-level variation in inequality, for example, we feel similar studies of poverty can make a contribution.

<sup>7</sup> Brady (2003a) calls intensity the “interval measure” to contrast with Sen's ordinal measure. We call it intensity because most are converging on this label. Brady (2003a) shows that if one analyzes poverty intensity, the ordinal measure is unnecessary since the two are very highly associated while the ordinal measure may contain greater measurement error. To understand the value of intensity, imagine societies A and B, with equal headcounts, would be equivalent. However, while A's poor cluster close to the threshold, B's poor cluster close to zero income. The headcount would be unable to detect this difference in depth. Further, if poverty in A and B were identical at one time point, the headcount would be unable to detect if A's poor suffered severe income loss, while B's poor were unchanged.

<sup>8</sup> We recognize that the working age population is often measured as, for example, Christopher et al.'s (2002) 25–54 year olds to exclude those still in school or those who retired early. Cutting the population to those between mid-20s and mid-50s may not be ideal since there is much cross-national and historical variation in schooling and retirement years. So, we follow Elmelech and Lu (2004) and treat the working-aged as 18–64.

In Appendix A, we provide descriptive statistics and sources for all variables. Data for several variables are proximately from Huber et al. (2004). For this study, we added Spain and Luxembourg. Appendix C contains a correlation matrix. Our LIS microanalyses are original, and the estimates for all country-years are available in Appendix D (or Table 1).

### 3.2. Independent variables

Our specification and operationalization of the independent variables is guided by previous research (Brady, 2003b,c, 2005, 2006; Kenworthy, 1999; Moller et al., 2003). The models start with general variables that are included for all dependent variables, beginning with three measures of the macro-economy. First, we measure *economic growth* as the three-year average ( $t$ ,  $t - 1$ ,  $t - 2$ ) of the annual rate of change in gross domestic product (GDP) of purchasing power parity (PPP) dollars. Second, we measure *productivity* as GDP in PPP per civilian employee (lagged one year). Third, we measure *manufacturing employment* as industrial employees as a percentage of the labor force. According to liberal economic and structural theories, all three should have negative effects.

Next, we incorporate three welfare state measures. *Social security transfers* as a percent of GDP includes state transfers for sickness, old age pensions, family allowances, unemployment and workers' compensation and other assistance.<sup>9</sup> *Public health spending* as a percent of total health spending summarizes all public spending on healthcare, medicine, and public health including transfers, in-kind benefits and services. *Public employment* as a percent of civilian employment measures all civilian non-military government employment as a percent of the working age population (Cusack, 2004).<sup>10</sup> Collectively, these three encompass various aspects of welfare state generosity: direct compensatory payments, the redistributiveness and socialization of services, and government jobs. Following power resources theory, each is expected to be negative.

Finally, we include two general demographic variables. *Children in single mother families* is measured as a percent of the population. The LIS staff estimates the percent of children in single mother families. Following Brady (2006), we multiplied these estimates by the percentage of the population children.<sup>11</sup> The *percent of population children* is measured as the percent of the population under 15 years old. According to structural theory, these demographic variables should have positive effects.

In addition to the general variables included for every dependent variable, we have variables that are sex-specific and sex ratios.<sup>12</sup> We calculate each for women, for men, and as a sex ratio of women to men. First, we measure the *percent of women elderly* and the *percent of men elderly* as the percentage of the population that is 65 years old and over. Then, we calculate the sex ratio of the percent women elderly over the percent men elderly. Second, we measure *female unemployment* and *male unemployment* as a percent of the labor force, and later calculate the sex ratio of those two. Third, we include *female labor force participation*, measured as the female labor force as a percent of the female population between 15 and 64 years old. We also measure *male labor force participation* in the same way, and we construct a sex ratio of the two.<sup>13</sup> According to structural and liberal economic explanations, the elderly and unemployment variables should be positive while the labor force variables should be negative.

<sup>9</sup> Of course, we recognize that transfers mean different things to different age groups (e.g. single mothers collect family assistance while elderly lone women collect public pensions). Unfortunately, the OECD does not decompose this measure and thus we cannot test which specific programs within this measure are most effective.

<sup>10</sup> For Spain and Luxembourg, Cusack's measure was unavailable. So, we substituted general government services as percent of civilian employment (See Appendix A). The two measures are highly correlated. Dropping those cases does not change the results.

<sup>11</sup> Brady, 2006 shows that this standardization results in larger and more significant coefficients than the percent of children in single mother families. We calculated the percentage of the population children from the number of children and the total population. The OECD data are actually the number of children under 15. This is somewhat problematic since the LIS rates of children in single mother families are based on children under 18. Unfortunately, however, data on those under 18 are not available. Most likely, the generated measurement error is not very damaging since this only excludes 15, 16 and 17 year olds.

<sup>12</sup> For our analyses of overall poverty, we treat these variables somewhat differently (see Appendix B).

<sup>13</sup> We also estimated models with the female/male employment rate instead of labor force participation. In models with and without unemployment, we found similar results, but the labor force participation variables had consistently larger and more significant effects.



Table 1  
Descriptive patterns in women and men's poverty across 18 affluent Western democracies in most recent Luxembourg Income Study Data

Country	Year	Headcount				Intensity				Headcount		Intensity	
		Working age women	Adult women	Working age men	Adult men	Working age women	Adult women	Working age men	Adult men	Working age ratio	Adult ratio	Working age ratio	Adult ratio
Australia	1994	11.822	15.481	9.965	11.903	7.713	10.042	6.723	8.025	1.186	1.301	1.147	1.251
Austria	1997	7.351	8.866	5.998	6.107	4.815	5.598	4.044	4.045	1.226	1.452	1.190	1.384
Belgium	1997	7.386	8.381	6.810	7.708	4.704	5.207	4.410	4.892	1.084	1.087	1.067	1.065
Canada	2000	12.163	11.317	10.143	9.294	8.085	7.414	6.767	6.168	1.199	1.218	1.195	1.202
Denmark	1992	6.884	8.245	6.786	7.058	4.636	5.406	4.618	4.736	1.015	1.168	1.004	1.142
Finland	2000	5.071	6.580	5.945	5.526	3.073	3.872	3.709	3.413	.853	1.191	.828	1.134
France	1994	8.133	8.833	6.741	6.933	4.755	5.412	4.205	4.270	1.206	1.274	1.131	1.267
Germany	2000	8.507	9.661	6.771	6.527	5.502	6.153	4.393	4.205	1.480	1.256	1.253	1.463
Ireland	2000	14.241	19.810	10.529	12.513	8.800	12.101	6.552	7.704	1.353	1.583	1.343	1.571
Italy	2000	11.696	12.846	10.774	10.692	7.858	8.374	7.255	7.065	1.086	1.201	1.083	1.185
Luxembourg	2000	5.977	5.608	4.996	4.683	3.484	3.264	2.871	2.694	1.196	1.198	1.213	1.212
The Netherlands	1999	8.745	8.055	8.602	7.967	6.096	5.565	6.112	5.615	1.017	1.011	.997	.991
Norway	2000	6.198	8.595	6.004	5.858	4.119	5.287	4.161	3.970	1.032	1.467	.990	1.332
Spain	1990	9.541	9.998	8.371	8.758	6.062	6.266	5.415	5.548	1.140	1.142	1.120	1.129
Sweden	2000	7.324	8.056	6.787	6.266	5.060	5.264	4.727	4.285	1.079	1.286	1.070	1.228
Switzerland	1992	8.686	8.708	9.338	9.062	6.822	6.658	7.356	7.045	.930	.961	.927	.945
UK	1999	10.026	13.503	8.656	9.475	6.438	8.591	5.794	6.155	1.158	1.425	1.111	1.396
US	2000	15.006	17.451	11.739	12.857	10.093	11.612	7.817	8.499	1.278	1.357	1.291	1.366

Notes. All sex ratios are female/male. "Headcount" is the percent of individuals that reside in households with incomes below 50% of the median. "Intensity" is the product of the headcount and the average depth of poverty among the poor.

Last, we treat a few variables differently. We include the *percent of women working part-time* for women's poverty and the sex ratio of poverty (expected to have positive effects). We omit this variable for men's poverty. We include two labor market institutions that are associated with gender and economic egalitarianism and in turn, expected to have negative effects. *Union density* is gross union members as a percent of the labor force. *Wage coordination* is Kenworthy's (2001) index of bargaining centralization scored 1–5 with 5 being the most centralized. *Women in parliament* is the cumulative average percent of parliamentary seats held by women since 1946 (expected to have negative effects).<sup>14</sup> These three variables are not available for Luxembourg and Spain, so are only included in supplementary analyses of 16 countries (86 cases).

Given the literature on gender inequality at work, an obvious omission is the sex pay gap. Unfortunately, quality, comparable measures are simply not available. We attempted to conduct original analyses of the LIS for the countries and years that necessary data exists (especially data on weeks and hours worked full-time). We were able to calculate a sex ratio of median full-time salary or wages. However, these measures were only available for an unrepresentative sample of seven countries (23 cases), and we doubt the quality of the estimates. In analyses available upon request, the results for these variables were unstable and mostly insignificant. Ultimately, we judge this issue as simply beyond the scope of the current study. We defer to the valuable micro-level LIS research comparing a smaller number of country-years (Christopher et al., 2002; Misra et al., 2005).<sup>15</sup>

### 3.3. Models

To evaluate the sources of poverty, we follow recent research on inequality (Alderson and Nielsen, 2002) and poverty (Brady, 2003c, 2005, 2006). We use an unbalanced panel design where the unit of analysis is a country-year. Because of the limited availability of the LIS, cases are unevenly distributed across 18 countries ( $N$ 's) and 32 years ( $T$ 's). Due to unobserved time-invariant cross-national heterogeneity, ordinary least squares (OLS) regression is inappropriate (Hsiao, 2003). Using STATA, we analyzed models with several techniques. For theoretical and methodological reasons, we present random effects (RE) models. First, RE models better facilitate estimating the effects of the independent variables on the dependent variables when *both* cross-national and historical variation are essential (Beck, 2001; Beck and Katz, 1996; Greene, 1990: 495).<sup>16</sup> It is valuable to understand why some nations have more or less poverty, *and* why poverty increases or decreases over time. In fact, the standard deviations between nations are larger than within nations for most variables. Further, the number of  $N$ 's (18) exceeds the average number of  $T$ 's (5.2). As a result, the cross-national (between) variation is arguably more important than the historical (within) variation. Second, statistical tests accept RE models.<sup>17</sup> Third, according to the econometric literature, in small and unbalanced samples with more  $N$ 's than  $T$ 's, RE models perform better than alternatives (Bhargava and Sargan, 1983; Greene, 1990: 493, 495; Hsiao, 2003; Beck, 2001). By contrast, the alternatives are often problematic in small and unbalanced

<sup>14</sup> We also estimated models with the current % of parliamentary seats held by women. None of the conclusions was different, and this alternative was smaller and even less significant.

<sup>15</sup> Of course, one could analyze the antecedents of sex pay inequality—for example, occupational segregation and/or sex differences in human capital and educational achievement. Unfortunately, even the most comprehensive sources fall short of providing sufficient data to match up with the country-years in our sample.

<sup>16</sup> Fixed effects (FE) models explain historical variation *within* nations while removing the variation between nations. FE models perform OLS after including nation-specific constants and subtracting all variables from their nation-specific means. Between-effects (BE) models explain between-nation variation while removing the variation within nations. BE models pool the values for each variable by country to calculate nation-specific means, and then model the variation across those nation-specific means. The RE model is the matrix weighted average of the within- (FE) and between-nations (BE) estimators (Greene, 1990: 488; Hsiao, 2003). RE models include country-specific error terms with the general error term and, subtract a smaller portion of the nation-specific means. Cross-national differences in poverty and the independent variables are not constant over time, but relative stability exists in the ranking of nations for many of these variables—hence, FE models effectively mask this crucial variation (see Beck and Katz's, 2001: 492). As Beck and Katz (2001: 487) explain, "Fixed effects are problematic in the presence of [the] temporally stable regressors." Further, trends in poverty are essential as well, and BE models would mask this essential within-nation variation.

<sup>17</sup> Recently, methodologists have shown that the Bayesian Information Criterion (BIC') can be used to select between these techniques (Beck and Katz, 2001: 492; Teachman et al., 2001). BIC' very strongly prefers RE over FE models. Hausman's (1978)  $\chi^2$  test accepts RE and does not require FE models, though Hausman's test is often unidentified in small samples like this. We also use BIC' to select between models below (Raftery, 1995).

samples, especially when the  $N$  far exceeds the  $T$ 's.<sup>18</sup> Finally, we estimated all models with alternative techniques and the conclusions are consistent (available upon request). Of course, it is important to acknowledge that RE models are far from perfect (Halaby, 2004). RE models assume that omitted covariates and stable country characteristics are orthogonal to included covariates.

## 4. Results

### 4.1. The extent of women's, men's and feminized poverty

In Table 1, we present estimates of women's and men's poverty across the 18 countries. Appendix D contains the estimates of adult women's and men's poverty for the remainder of our sample. In the first four columns, we show the headcount for working age women (18–64), all adult women, working age men, and adult men. In 15 of the 18 countries, headcount poverty is greater for the broader sample of adult women as opposed to the narrower sample of working age women (Canada, Luxembourg, and The Netherlands are exceptions). This pattern holds in 77 of the 93 country-years as well. In all 93 cases, the mean for adult women's headcount is significantly greater than the mean for working age women's headcount ( $t = 8.82$ ). Thus, if one confines their analysis to working age women, the extent of women's headcount poverty may be underestimated. Since elderly women are more likely to be poor than working age women, including the elderly results in a higher estimate of female poverty. Headcount poverty for adult men is greater than headcount poverty for working age men in half of the 18 countries (and 61 of 93 country-years) as well. The mean for adult men's headcount is significantly greater than the mean for working age men's headcount ( $t = 4.68$ ). Australia, Canada, Ireland, Italy, Spain, the UK and the US have at least 10% headcount poverty for women. Though always less than women's headcount, Australia, Ireland, Italy, and the US have at least 10% headcount poverty for men.

The next four columns display poverty intensity for those four groups. Intensity is greater among adult women than working age women in 14 of 18 countries (Canada, Luxembourg, The Netherlands and Switzerland are exceptions), and 75 of the 93 country-years. In all 93 cases, the mean for adult women's intensity is significantly greater than the mean for working age women's intensity ( $t = 7.70$ ). As with the headcount, half of the countries have greater intensity among adult men than among working age men (57 of 93 country-years). The mean for adult men's intensity is significantly greater than the mean for working age men's intensity ( $t = 3.49$ ). In several countries, intensity for women is greater than 10—Australia, Ireland, and the US—though no countries have intensity for men at that level. For both women and men, including the elderly in the sample of adults raises the estimates of headcount and intensity.<sup>19</sup>

The last four columns contain the sex ratios of women's to men's headcount and intensity for the working-aged and all adults. In Germany and The Netherlands only, the headcount adult ratio is smaller than the headcount working age ratio. Thus, in 16 of 18 countries, the feminization of headcount poverty is raised by including the elderly. In the entire sample, the adult headcount ratio is significantly greater than the working age headcount ratio ( $t = 7.32$ , and in 81 of 93 country-years). In Finland and Switzerland, working age women

<sup>18</sup> FE models consume a degree of freedom for every  $N$ . With 93 cases and 18  $N$ 's (average of 5.2  $T$ 's), FE models are less efficient (Beck and Katz, 2001; Hsiao, 2003: 42; Greene, 1990). Nickell (1981) shows that FE models may produce biased estimates when  $N$  far exceeds  $T$ . Population average models are problematic in small samples since they are a maximum likelihood estimator, which is designed for larger samples. An alternative is to use heteroscedasticity consistent standard errors, for example OLS with robust clustered errors. However, Long Scott and Ervin (2000) show that this popular Huber-White Sandwich estimator (HC0) produces incorrect inferences in samples with less than 250 cases. The alternative HC3, which works well even in samples as small as 25, does not allow for the clustering of errors within countries—the reason for using HC0. Finally, Beck (2001) emphasizes that OLS with panel corrected standard errors should not be used when there are less than 10 or 15  $T$ 's. Importantly, Beck (2001) draws a sharp distinction between time-series-cross-section data with more  $T$ 's than  $N$ 's, and panel data with more  $N$ 's than  $T$ 's. Beck (p 274) explains, “Panel methods [e.g. RE] are designed for and work well with very small  $T$ 's (three, or perhaps even two).”

<sup>19</sup> Smeeding (1990) has shown that while a minority of US retirees has a high income, a large percentage has an income just above the official poverty line. Also, Smeeding and colleagues (2001) show that with a threshold of 40% of the median income—which is closer to the official US threshold—the rate of elderly poverty would be much lower in the US and several other countries. This sensitivity to the chosen threshold for the rate of elderly poverty accounts for why the elderly are less likely to be officially poor than relatively poor. A headcount measure does not have to be very much higher, to get a different result, particularly for the US and the elderly.

are actually less likely to be poor than working age men. However, considering all adults, Finnish women are nearly 20% more likely to be poor than Finnish men. Switzerland is the only country where women are less likely to be poor than men. In our sample, men are more likely to be poor in only 5 of the 93 country-years. In 15 of the 18 countries, adult women are more than 10% more likely to be poor than adult men (and 83 of 93 country-years). In Australia, Austria, Ireland, Norway, the UK, and the US, adult women are more than 30% more likely to be poor than adult men (51 of 93 country-years). Including all adults instead of only the working-aged, we find that the US is not an extreme outlier in terms of feminized poverty. Women's headcount poverty is greater than men's in almost all affluent Western democracies.

The intensity ratios show similar patterns. In 15 of 18 countries, the intensity ratio is larger among all adults than working age adults (76 of 93 country-years). In Belgium, Luxembourg, and The Netherlands, the adult intensity ratio is smaller than the working age ratio; however, the differences are minute. In the other countries, the adult ratio is often more than 10% larger than the working age ratio and, in the entire sample, the adult intensity ratio is significantly greater than the working age intensity ratio ( $t = 7.00$ ). As with the headcount, Finland has a working age ratio of less than one, but the adult ratio is 1.13. The Netherlands and Switzerland are the only countries with an adult ratio of less than one, and only 6 of the 93 country-years in the full sample feature greater men's than women's intensity. Interestingly, the countries with very high intensity ratios do not match up perfectly with the countries with very high headcount poverty ratios. Austria, Germany, Ireland, Norway, UK and the US stand out with adult intensity ratios exceeding 1.3 (43 of 93 country-years).

Along with cross-national patterns, we present historical trends in the sex ratios of poverty in the US from 1974 to 2000 in Fig. 1. Panel a in Fig. 1 shows the sex ratio of headcount poverty for adults, the elderly, and the working-aged. Panel b shows the sex ratios of intensity. The patterns are consistent across headcount and intensity. In 1974 and 1979, the feminization of poverty among the elderly was lower than among the working-aged, and the adult sex ratio of poverty was about equal with the working-aged. Since 1986, however, the sex ratio of poverty has been considerably higher among the elderly. As a result, the feminization of poverty among the working-aged has been consistently lower than among all adults and we may underestimate the feminization of poverty by concentrating on the working-aged. For both headcount and intensity, the adult feminization of poverty rose from 1974 to 1979 and has modestly declined since then. Nevertheless, adult women continue to be much more likely to be poor than adult men in 2000. As well, both women's and men's poverty increased more than they declined 1974–2000 (see Appendix D). What explains the modest decline in the feminization of poverty is not the decline of women's poverty, but rather the sharper increase in men's poverty.<sup>20</sup>

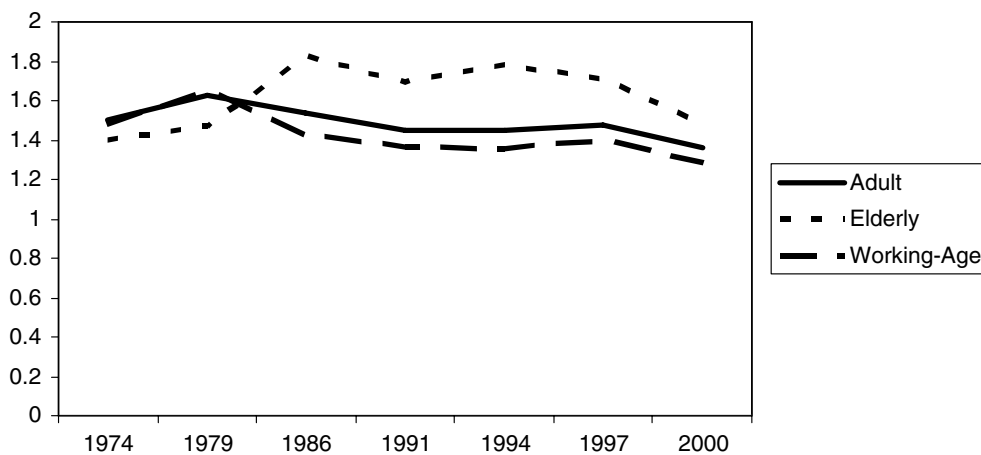
Finally, in Fig. 2, we present the trends for the feminization of headcount poverty for the six countries for which we have at least six time points (intensity trends available upon request). Though it is more difficult to discern cross- or intra-national trends here, there appears to be two important findings. First, most countries, except notably Sweden, experienced a modest decline in the feminization of poverty. Sweden previously experienced several years where the feminization of poverty was less than one. Second, there appears to be some convergence near the mean in the latter part of the period. While countries like Germany had very high feminization of poverty in earlier years, all countries were between 1 and 1.5 by the end of the period.

In Table 2, we display the descriptives for the entire sample for overall, women's and men's poverty, and the sex ratio for both headcount and intensity. For the remaining analysis, we only present adult poverty (18 years old and older).<sup>21</sup> Consistent with above, women's poverty is significantly greater than overall (headcount:  $t = 9.03$ , intensity:  $t = 1.84$ ) and men's (headcount:  $t = 13.94$ , intensity:  $t = 12.91$ ) poverty. Men's poverty is significantly less than overall poverty (headcount:  $t = -10.46$ , intensity:  $t = -12.58$ ). Hence, adult women are overrepresented among the poor and adult men are underrepresented. Table 2 also shows that the means for the sex ratios for headcount and intensity are both about 1.4: adult women's poverty is about 40% greater

<sup>20</sup> Though the LIS staff caution against claims about trends (Rainwater and Smeeding, 2004), this pattern appears in the entire sample. Using RE or FE models with no other independent variables, year has a significant negative effect on the sex ratio of headcount and intensity. Year also has a significant positive effect on men's headcount and intensity, but year does not have a significant effect on women's headcount and intensity.

<sup>21</sup> As we explain below, we replicated the analyses in Tables 2–6 for the working age population and the conclusions were consistent (see Appendix E).

**Panel a:** Headcount (H) Ratio of Women's to Men's Poverty in the U.S., 1974-2000



**Panel b:** Poverty Intensity (HI) Ratio of Women's to Men's Poverty in the U.S., 1974-2000

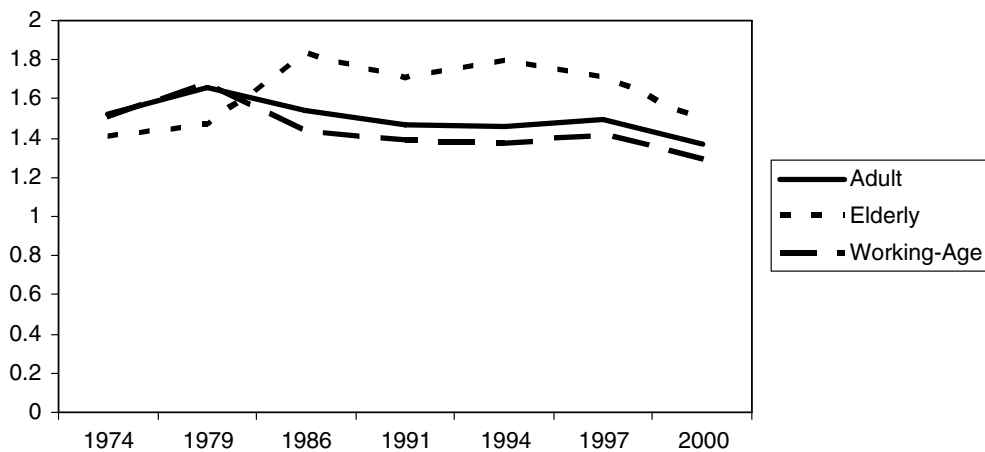


Fig. 1. A comparison of sex poverty ratios with the headcount (H) and poverty intensity (HI) measures for the adult, elderly and working age populations in the US, 1974–2000.

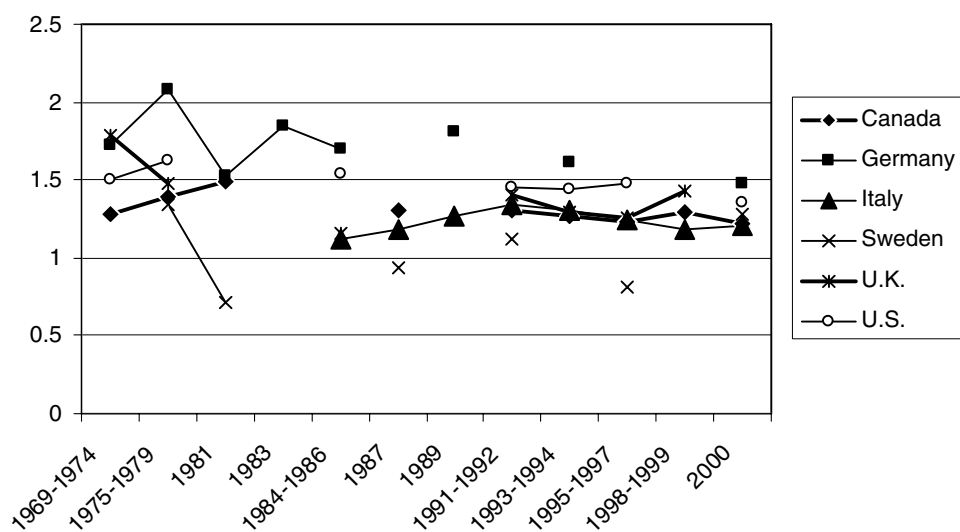


Fig. 2. Trends in the feminization of headcount poverty across six affluent Western democracies.

Table 2  
Descriptive statistics and correlation matrix of various measures of poverty ( $N = 93$ )

	Overall headcount	Overall intensity	Women's headcount	Women's intensity	Men's headcount	Men's intensity	Headcount sex ratio	Intensity sex ratio
Mean	9.510	6.583	10.549	6.768	7.773	5.096	1.397	1.374
Standard deviation	3.744	2.428	3.777	2.506	2.776	1.904	.339	.340
Overall intensity	.905							
Women's headcount	.956	.871						
Women's intensity	.964	.923	.990					
Men's headcount	.922	.877	.872	.899				
Men's intensity	.889	.889	.830	.875	.990			
Headcount sex ratio	-.059	-.139	.125	.059	-.335	-.379		
Intensity sex ratio	-.041	-.119	.133	.071	-.324	-.371	.993	
<i>After dropping cases with headcount or intensity sex ratios two standard deviations above mean</i>								
Headcount sex ratio ( $N = 88$ )	.128	.041	.269	.207	-.154	-.221		
Intensity sex ratio ( $N = 89$ )	.117	.038	.256	.196	-.173	-.237		

Notes. All sex ratios are female/male. "Headcount" is the percent of individuals that reside in households with incomes below 50% of the median. "Intensity" is the product of the headcount and the average depth of poverty among the poor.

than adult men's. In this recent cross-section (Table 1), the average headcount and intensity sex ratios are 1.25 and 1.24. Our estimates are higher than past research, which focused on the working-aged.<sup>22</sup> Overall, the feminization of poverty appears to be much greater if one considers the elderly.

#### 4.2. Coherence or divergence between dimensions of poverty?

Table 2 also shows that there is a very strong correlation between overall, women's and men's poverty. The overall headcount has a very high correlation with women's headcount and intensity ( $r = .96$ ). The overall intensity has a slightly weaker, but still very strong correlation with women's headcount and intensity as well ( $r = .87$  and  $.92$ ). The weakest correlation between the two overall measures and men's poverty is  $.89$ . Most importantly, women's and men's poverty are very highly correlated (the weakest correlation between the four is  $.83$ ). Partly because a large share of the adult population lives in couples, there is a tremendous coherence between a society's level of poverty and poverty for adult men and adult women. Societies with high overall levels of poverty tend to have high women's and men's poverty, and societies with lower women's poverty tend to have lower overall and men's poverty. There is no tradeoff between an economically egalitarian society and reducing deprivation for women or men.

However, the extent to which poverty is feminized is an entirely different matter. The headcount and intensity sex ratio are not very correlated with other measures of poverty, and are surprisingly weakly negatively associated with overall headcount and intensity. Given men's poverty is the denominator in these ratios, the headcount and intensity sex ratios are somewhat negatively correlated with men's poverty. For the inverse reason, the headcount and intensity sex ratio are weakly positively correlated with women's poverty. Nevertheless, the extent of poverty in society is simply not very associated with how much that poverty is feminized.

To be certain this conclusion was robust, we inspected the plots and reestimated the correlations after dropping cases where sex ratios were more than two standard deviations above the mean (see bottom of Table 2). After excluding such cases of extremely feminized poverty, the headcount and intensity sex ratios are still only

<sup>22</sup> For example, Christopher and colleagues' (2002) analysis of 25–54 year olds found a mean headcount sex ratio of 1.14 across eight countries in the 1990s. Casper and colleagues' (1994) analysis of 18–57 year olds found a mean headcount sex ratio of 1.18 across eight countries in the 1980s. For our entire sample, the headcount sex ratio mean is significantly greater than both of those means ( $p < .05$ ). For this recent cross-section, the headcount sex ratio mean is significantly greater than Christopher and colleagues' mean ( $p = .07$ ), but is only nearly significantly greater than Casper and colleagues' mean ( $p = .16$ ).

weakly associated with overall, women's and men's poverty. The headcount and intensity sex ratios are now positively associated with overall poverty, which on the surface seems consistent with Blau and Kahn's (1992) conclusions. But, the correlation is quite weak—especially compared to the high correlations between overall, women's and men's poverty.<sup>23</sup> Thus, the main pattern remains: the feminization of poverty in a country is not very associated with levels of overall, women's or men's poverty and is a distinct social problem. This conclusion is consistent if we confine our analyses to the working-aged.<sup>24</sup>

#### 4.3. Feminist critiques of “Similar Causes”

In Tables 3–5, we analyze the correlates of women's, men's, and feminized poverty (Appendix B displays overall poverty). In all, we first present a model with all independent variables and then a second model trimmed of insignificant coefficients. Each table contains analyses of headcount and intensity. Since our descriptive patterns demonstrate that the women's, men's and overall poverty are greater if the elderly are included, and because this results in greater feminization of poverty for most country-years, we retain the elderly in these analyses. Given the important descriptive patterns, we are analytically most interested in what country characteristics are associated with these patterns. As we explain below, our conclusions are robust if we concentrate exclusively on the working-aged. Simply for parsimony, we only show the results for all adults (except Appendix E).<sup>25</sup>

Table 3 presents models of women's poverty. In the first models for headcount and intensity, economic growth, manufacturing employment, social security transfers, public health spending, female unemployment and female labor force participation have significant negative effects and children in single mother families is significantly positive. Though significant in the first model for the headcount, female unemployment is insignificant in the second. Though significant in the first model for intensity, productivity is insignificant in the second. In order of magnitude of the significant standardized coefficients in the second model, the most important sources of women's headcount poverty are social security transfers, children in single mother families, female labor force participation, public health spending and economic growth. For intensity, the most important sources are public health spending, social security transfers, female labor force participation, children in single mother families, manufacturing employment, female unemployment and economic growth. The size and significance of some coefficients fluctuates, but a mix of liberal economic, structural and power resources variables shape women's poverty. Since the welfare state variables have such large effects, the results are consistent with research on overall poverty and mostly support power resources theory.

The insignificance of several variables warrants attention. Though others have contended public employment contributes greatly to gender equality in affluent democracies, public employment is not significantly associated with either measure of women's poverty.<sup>26</sup> While many link dependent children to the feminization of poverty, the percent of population children is insignificant. While elderly women outnumber elderly men and the elderly are disproportionately poor, the percent of women elderly is insignificant. Also, productivity is not robustly significant and the percent of women working part-time is insignificant.

Table 4 presents the models of men's poverty. In the first models for headcount and intensity, economic growth, manufacturing employment, social security transfers, public health spending and male labor force participation are significantly negative while the percent of the population children and the percent of men

<sup>23</sup> Another test of this is to estimate a RE model of the sex ratio of headcount and poverty intensity with overall headcount and poverty intensity as the only regressor. In such models (with and without outliers), overall headcount and poverty intensity never have significant effects and the sign of the coefficients are always negative.

<sup>24</sup> For example, the overall headcount correlates with the sex ratio of the working-aged at only .06. The overall intensity correlates with the sex ratio of working-aged intensity at  $-.01$ . Working-aged women's headcount correlates  $-.003$  with the sex ratio of working-aged headcount and the parallel intensity measures correlate  $-.02$ .

<sup>25</sup> Our elderly samples are not large enough for many country-years to estimate separate models of working-aged and elderly poverty. The size and details of the elderly samples are available upon request.

<sup>26</sup> If working age women's poverty is the dependent variable, public employment is still insignificant ( $t = -.77$  for headcount and  $t = -.31$  for intensity). If social security transfers and public health spending are dropped from the models, public employment is insignificant ( $t = -1.0$  for headcount and  $t = -1.3$  for intensity). If female labor force participation is dropped from the model, public employment is insignificant ( $t = -1.2$  for headcount and  $t = -1.1$  for intensity). If all independent variables are dropped, public employment is insignificant ( $t = -1.3$  for headcount and  $t = -1.4$  for intensity).

Table 3

Random effects models of *Women's* poverty in affluent Western democracies, 1969–2000 ( $N = 93$ )

	Headcount	Headcount	Intensity	Intensity
Economic growth	-.230*** <i>-.167</i> (-2.60)	-.242*** <i>-.176</i> (-2.85)	-.159*** <i>-.174</i> (-2.75)	-.156*** <i>-.171</i> (-2.77)
Productivity	-.00005 <i>-.111</i> (-1.41)		-.00004* <i>-.133</i> (-1.71)	-.00003 <i>-.089</i> (-1.22)
Female unemployment	-.198** <i>-.265</i> (-2.08)	-.125 <i>-.168</i> (-1.46)	-.119* <i>-.241</i> (-1.95)	-.101* <i>-.205</i> (-1.76)
Manufacturing employment	-.206** <i>-.309</i> (-2.29)	-.123 <i>-.184</i> (-1.55)	-.136** <i>-.306</i> (-2.35)	-.106* <i>-.239</i> (-1.91)
Children in single mother families	1.290*** <i>.349</i> (2.83)	1.300*** <i>.352</i> (2.99)	.817*** <i>.333</i> (2.78)	.760*** <i>.310</i> (2.63)
% Population children	-2.119 <i>-.016</i> (-.13)		.596 <i>.007</i> (.05)	
% Women elderly	.281 <i>.194</i> (1.28)		.206 <i>.215</i> (1.45)	
Female labor force participation	-.186*** <i>-.513</i> (-3.03)	-.119*** <i>-.327</i> (-2.88)	-.123*** <i>-.509</i> (-3.08)	-.082*** <i>-.342</i> (-3.00)
% Women working part-time	-.030 <i>-.078</i> (-.71)		-.015 <i>-.060</i> (-.58)	
Social security transfers	-.421*** <i>-.482</i> (-4.31)	-.317*** <i>-.364</i> (-4.25)	-.268*** <i>-.463</i> (-4.27)	-.205*** <i>-.353</i> (-3.95)
Public health spending	-.118*** <i>-.381</i> (-2.96)	-.098*** <i>-.319</i> (-2.82)	-.096*** <i>-.467</i> (-3.79)	-.083*** <i>-.405</i> (-3.56)
Public employment	.058 <i>.070</i> (.51)		.047 <i>.086</i> (.64)	
Constant	40.110*** (3.95)	31.897*** (5.86)	26.816*** (4.11)	24.660*** (5.85)
BIC'	-23.669	-30.259	-26.655	-29.821
R <sup>2</sup> Within	.282	.242	.290	.275
R <sup>2</sup> Between	.739	.720	.775	.734
R <sup>2</sup> Overall	.690	.664	.712	.676

Notes. For each independent variable, the unstandardized coefficient, *standardized coefficient in bold and italics*, and *t*-score in parentheses are displayed. "Headcount" is the percent of individuals that reside in households with incomes below 50% of the median. "Intensity" is the product of the headcount and the average depth of poverty among the poor.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .



Table 4  
Random effects models of men's poverty in affluent Western democracies, 1969–2000 (N = 93)

	Headcount	Headcount	Intensity	Intensity
Economic growth	–.186** –.183 (–2.54)	–.181*** –.179 (–2.61)	–.130** –.188 (–2.46)	–.135*** –.195 (–2.69)
Productivity	–.00001 –.027 (–.32)		–.00001 –.064 (–.71)	
Male unemployment	–.078 –.094 (–.83)		–.052 –.091 (–.77)	
Manufacturing employment	–.156** –.318 (–2.41)	–.118*** –.240 (–2.61)	–.107** –.318 (–2.34)	–.074** –.221 (–2.39)
Children in single mother families	–.096 –.035 (–.27)		–.097 –.052 (–.38)	
% Population children	32.612*** .345 (2.92)	30.422*** .322 (2.92)	20.824** .321 (2.59)	19.256*** .297 (2.61)
% Men elderly	.545** .346 (2.56)	.527** .334 (2.59)	.375** .347 (2.46)	.365*** .337 (2.62)
Male labor force participation	–.090** –.219 (–2.04)	–.083** –.200 (–2.02)	–.051 –.180 (–1.62)	–.044 –.157 (–1.59)
Social security transfers	–.201*** –.313 (–2.62)	–.216*** –.336 (–3.19)	–.125** –.285 (–2.30)	–.126*** –.287 (–2.68)
Public health spending	–.107*** –.472 (–3.27)	–.106*** –.467 (–3.65)	–.084*** –.541 (–3.64)	–.081*** –.523 (–4.27)
Public employment	–.026 –.042 (–.32)		–.008 –.018 (–.13)	
Constant	19.972*** (3.09)	17.622*** (3.31)	13.796*** (3.00)	11.296*** (3.07)
BIC'	–11.880	–23.604	–10.910	–22.439
R <sup>2</sup> Within	.318	.289	.294	.264
R <sup>2</sup> Between	.616	.664	.650	.693
R <sup>2</sup> Overall	.585	.604	.575	.592

Notes. For each independent variable, the unstandardized coefficient, *standardized coefficient in bold and italics*, and *t*-score in parentheses are displayed. “Headcount” is the percent of individuals that reside in households with incomes below 50% of the median. “Intensity” is the product of the headcount and the average depth of poverty among the poor.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

Table 5

Random effects models of *sex ratio* in poverty in affluent Western democracies, 1969–2000 ( $N = 93$ )

	Headcount	Headcount	Intensity	Intensity
Economic growth	.011 <b>.090</b> (.94)		.013 <b>.104</b> (1.12)	
Productivity	-.00001 <b>-.160</b> (-1.38)		-.00001 <b>-.149</b> (-1.32)	
Sex ratio of unemployment	-.133 <b>-.179</b> (-1.19)		-.092 <b>-.123</b> (-.86)	
Manufacturing employment	.014 <b>.235</b> (1.56)		.013 <b>.223</b> (1.57)	
Children in single mother families	.166*** <b>.501</b> (2.72)	.125** <b>.376</b> (2.40)	.174*** <b>.524</b> (2.96)	.117** <b>.352</b> (2.48)
% Population children	-3.347* <b>-.290</b> (-1.74)	-1.532 <b>-.133</b> (-.91)	-2.914 <b>-.252</b> (-1.62)	
Sex ratio of % elderly	.740* <b>.275</b> (1.76)	1.251*** <b>.465</b> (3.72)	.853** <b>.317</b> (2.14)	1.385*** <b>.513</b> (4.51)
Sex ratio of labor force participation	-1.209** <b>-.429</b> (-2.09)	-1.092** <b>-.388</b> (-2.49)	-1.261** <b>-.447</b> (-2.31)	-.994*** <b>-.351</b> (-2.86)
% Women working part-time	-.003 <b>-.101</b> (-.75)		-.003 <b>-.099</b> (-.81)	
Social security transfers	-.028** <b>-.352</b> (-2.51)	-.025*** <b>-.323</b> (-2.67)	-.027** <b>-.344</b> (-2.58)	-.023*** <b>-.293</b> (-2.63)
Public health spending	.006 <b>.220</b> (1.32)		.006 <b>.200</b> (1.29)	
Public employment	-.002 <b>-.024</b> (-.13)		-.003 <b>-.034</b> (-.20)	
Constant	1.625 (1.19)	.785 (.95)	1.356 (1.05)	.171 (.36)
BIC'	2.112	-7.075	-.627	-24.957
R <sup>2</sup> Within	.276	.153	.272	.159
R <sup>2</sup> Between	.545	.481	.620	.537
R <sup>2</sup> Overall	.413	.342	.451	.371

Notes. For each independent variable, the unstandardized coefficient, *standardized coefficient in bold and italics*, and *t*-score in parentheses are displayed. All sex ratios are female/male. “Headcount” is the percent of individuals that reside in households with incomes below 50% of the median. “Intensity” is the product of the headcount and the average depth of poverty among the poor.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

elderly are significantly positive.<sup>27</sup> Except for male labor force participation, these variables are significant in the second models. In order of magnitude of the significant standardized coefficients in the second model, public health spending, social security transfers, percent of men elderly, percent of population children, manufacturing employment, male labor force participation and economic growth influence men's headcount poverty. In order of magnitude, public health spending, percent of men elderly, percent of population children, social security transfers, manufacturing employment and economic growth influence men's intensity.

Like women's poverty, men's poverty is shaped by a combination of liberal economic, structural and power resource variables. Again, power resources theory appears to receive the most support. For both men's and women's poverty, the welfare state (combining social security transfers and public health spending) is most influential. Like women's poverty, public employment does not affect men's poverty. There are a few differences in the structural variables affecting men's and women's poverty. While children in single mother families has a relatively large effect on women's poverty, it is insignificant for men's poverty. While the percent of population children has a relatively large effect on men's poverty, it is insignificant for women's poverty. While the percent of men elderly significantly increases men's poverty, the percent of women elderly is insignificant for women's poverty. By analyzing the correlates of women's and men's poverty separately, we gain a better understanding of the correlates of each.

Table 5 presents models of the sex ratio of headcount and intensity. Social security transfers, children in single mother families, the sex ratio of the percent elderly, and the sex ratio of labor force participation are significant in both models for both dependent variables. In the first model for the headcount ratio, the percent of population children is significant, but it is insignificant in the second model or in either model for intensity. The other variables are not significant, though several are near significant. As with women's, men's and overall poverty, public employment does not significantly affect the headcount or intensity ratio.<sup>28</sup> Despite liberal economic claims about its importance for overall poverty, the general economic climate—embodied by economic growth, productivity, and unemployment—does not influence the feminization of poverty. Rather, the feminization of poverty is only influenced by social security transfers, children in single mother families, the sex ratio of the percent elderly and the sex ratio of labor force participation. Each of the four variables has a sizable effect, as shown by standardized coefficients.

The sources of the feminization of poverty have some similarities with the sources of women's, men's and overall poverty. Power resource and structural variables both play a role, though structural variables appear to be most important. The three most important variables are the sex ratios of the percent elderly and labor force participation and children in single mother families. Though significantly negative, social security transfers has the fourth largest effect. Thus, this is an important departure from the sources of overall, women's and men's poverty. Arguably, those three dimensions of poverty are best explained by power resources theory. But, the feminization of poverty may be best explained by structural theory. In these ways, the feminist critiques of "similar causes" is supported.

There are some other interesting differences in the sources of the dependent variables. While public health spending—and the social services and redistributiveness it embodies—has the most powerful effects on men's and overall poverty (and among the largest effects for women's poverty), it does not affect the feminization of poverty. Rather, social security transfers is the welfare state variable that influences the sex ratio of poverty. Children in single mother families affects all dependent variables except men's poverty. Thus, greater sex ratios in poverty are partly related to increasing single motherhood.

One way to interpret Table 5 is to counterfactually simulate how much of a change in the independent variables would be necessary to produce gender equality in poverty. For example, in the US in 2000, the head-

<sup>27</sup> Since female labor force participation significantly reduces overall poverty (Appendix B), one could include female labor force participation as a predictor of men's poverty. In analyses available upon request, we found it does not significantly affect men's poverty (with or without male labor force participation in the model).

<sup>28</sup> If social security transfers and public health spending are dropped from the models, public employment would not have a significant effect ( $t = -.2$  for the headcount ratio and  $t = -.3$  for the intensity ratio). If the sex ratio of female labor force participation is dropped, public employment is insignificant for the headcount ratio ( $t = -1.5$ ). If all variables are dropped, public employment is insignificant ( $t = -.7$  for the headcount ratio and  $t = -1.1$  for the intensity ratio). The only exception is that public employment would be significantly negative ( $t = -1.76$ ) at the .10 level for the sex ratio of poverty intensity if the sex ratio of labor force participation is dropped in the third model of Table 5.

count ratio would have to decline by 1.05 standard deviations and the intensity ratio would have to decline by 1.08 standard deviations for the ratios to reach an equal 1.0. This could be accomplished with a standard deviation increase in social security transfers, a standard deviation decline in children in single mother families and a standard deviation increase in the sex ratio of labor force participation (summing the standardized coefficients, headcount would decline 1.09 standard deviations and intensity would decline 1.0). Basically, the US could have gender parity in poverty if social security transfers increased from the actual 12.65% of GDP to 17, children in single mother families declined from 4.17% of the population to 3.15, and the sex ratio of labor force participation increased from .83 to .95.<sup>29</sup>

Some readers might be concerned that our results are misleading because we analyze the entire adult population. Conflating elderly and working age poverty could be problematic, and as noted above, focusing on the working-aged may enable a more precise analysis of micro-level mechanisms. While we contend that examining the entire adult population is defensible, we conducted sensitivity analyses to be sure our results were robust. As mentioned above, we replicated the analyses in Tables 2–6 for the working age population and the conclusions were consistent. In Appendix E, we display the full models for women's and men's poverty and the sex ratio in poverty for the working age population. Appendix E shows that the sex ratio in poverty among the working-aged has the same significant correlates as the sex ratio of the entire adult population. This should not be surprising given the high correlations between the sex ratio of headcount and intensity for all adults and the working-aged ( $r = .85$  for headcount and  $r = .86$  for intensity). Our conclusions about the sources of the feminization of poverty are robust.<sup>30</sup>

In Table 6, we present a final set of supplementary analyses of feminized poverty. Our models contain the significant variables from Table 5 and three additional variables for which we have more limited data: union density, wage coordination and women in parliament. Data on these variables are unavailable for Luxembourg and Spain, so the sample is 16 countries and 86 cases. Table 6 reveals that union density, wage coordination and women in parliament do not significantly affect the sex ratio of headcount or intensity.<sup>31</sup> The two egalitarian labor market institutions do not appear to influence the feminization of poverty, which is somewhat surprising given the attention they have gained for reducing gender inequality and overall poverty (Blau and Kahn, 1992; Brady, 2003c). While often considered a measure of women's political power, women in parliament does not influence the feminization of poverty.<sup>32</sup> In these models, the sex ratio of poverty continues to be significantly affected by social security transfers, children in single mother families, the sex ratio of the percent elderly and the sex ratio of labor force participation. In some regards, these results further undermine power resources theory as an explanation of the feminization of poverty. According to power resources theory, labor market institutions and women in parliament are important because they pressure for an expansion of the welfare state (Huber and Stephens, 2001). But, these variables are not associated with the feminization of poverty.

## 5. Discussion

Based on the largest sample for a study of this kind, we contribute new evidence for understanding macro-level variation in women's, men's and feminized poverty. Our empirical analysis addresses three questions. First, what is the extent of women's, men's and feminized poverty in affluent Western democracies? Second,

<sup>29</sup> With these counterfactual values, social security transfers would be .43 standard deviations above the mean for the entire sample, children in single mother families would be about a standard deviation above the mean, and the sex ratio of female labor force participation would be slightly more than two standard deviations above the mean.

<sup>30</sup> We also estimated the models trimmed of insignificant coefficients, and the betas and the conclusions were robust. It is interesting that a few of the liberal economic and structural variables are significant for either adult or working age women's or men's poverty, but not the other (cf. Appendix E). We reestimated our final models on this recent cross-section of countries using OLS (details available upon request) and the main conclusions are consistent.

<sup>31</sup> In analyses available upon request, we estimated separate models including the significant variables from Table 4 with each of these three additional variables one at a time. These three were not significant in any of those models.

<sup>32</sup> Measures of women in parliament are very highly associated with leftist control of parliament. Past research shows leftist parties influence the welfare state, and indirectly influence overall poverty through the welfare state (Brady, 2003c). Thus, social security transfers might mediate the effect of women in parliament. Nevertheless, after dropping social security transfers from the first two models, women in parliament remains insignificant.

Table 6  
Supplementary random effects models of *sex ratio* in poverty in limited samples of affluent Western democracies, 1969–2000

	Headcount	Intensity
Children in single mother families	.123** <b>.385</b> (2.17)	.121** <b>.381</b> (2.38)
% Population children	–.840 –.076 (–.46)	
Sex ratio of % elderly	1.057*** <b>.413</b> (3.05)	1.178*** <b>.461</b> (3.79)
Sex ratio of labor force participation	–1.131* –.381 (–1.92)	–1.064** –.360 (–2.29)
Social security transfers	–.023** –.312 (–2.19)	–.022** –.295 (–2.31)
Union density	–.0005 –.038 (–.27)	–.0004 –.028 (–.21)
Wage coordination	.031 <b>.139</b> (.95)	.032 <b>.144</b> (1.05)
Women in parliament	.003 <b>.045</b> (.23)	.0002 <b>.003</b> (.01)
Constant	.837 (.90)	.418 (.81)
BIC'	–2.054	–12.894
R <sup>2</sup> Within	.130	.141
R <sup>2</sup> Between	.604	.658
R <sup>2</sup> Overall	.375	.401
N of countries	16	16
N of cases	86	86

Notes. For each independent variable, the unstandardized coefficient, *standardized coefficient in bold and italics*, and *t*-score in parentheses are displayed. All sex ratios are female/male. “Headcount” is the percent of individuals that reside in households with incomes below 50% of the median. “Intensity” is the product of the headcount and the average depth of poverty among the poor.

\*  $p < .10$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

do overall, women’s, men’s and feminized poverty cohere or diverge across affluent Western democracies? Third, do women’s, men’s and feminized poverty have “similar causes?” At the outset, we suggested our study informed literatures on poverty, gender inequality and the intersection of gender and class. By addressing these questions, we aim to contribute to each of these literatures.

First, we provide recent estimates of adult women’s and men’s poverty and the ratio of women’s to men’s poverty with two different measures. Compared to past international research on the working-aged, we propose that the feminization of poverty is much greater if one incorporates the elderly. While there are very legitimate reasons for focusing on the working-aged, we conclude that the feminization of poverty may be worse than previously estimated. The US is not an extreme outlier, as many countries have very feminized poverty. Indeed, the feminization of poverty is nearly universal across affluent Western democracies, 1969–2000.

Second, we show that women's and men's poverty and poverty in the overall population are highly associated. Countries with high levels of overall poverty tend to have high women's as well as men's poverty. Thus, countries that are successful at reducing poverty overall tend to be successful at reducing both women's and men's poverty. While women's, men's and overall poverty cohere with each other, the feminization of poverty diverges from those dimensions of poverty. The poverty sex ratio is weakly associated with women's, men's or overall poverty. Thus, our research challenges the view that overall economic inequality can account for gender inequality. Similar to McCall (2001), we conclude that one cannot simply reduce the gender inequality in poverty to overall poverty. The feminization of poverty is a somewhat distinct social problem.

This conclusion raises an interesting theoretical question for inequality scholars: Is it preferable to have a society with lower women's poverty or a society with less feminized poverty? As mentioned above, the weak association between women's poverty and the sex ratio of poverty shows that no such tradeoff exists. However, this non-association also suggests women's and feminized poverty do not necessarily go together. For example, in Table 1, Norway has a relatively low headcount poverty for adult women (8.6), but has the second highest adult headcount sex poverty ratio (1.5). By contrast, Italy has a moderate adult headcount sex poverty ratio (1.2), but has a much higher headcount poverty for adult women (12.9). It is important that Norway maintains a high sex poverty ratio, but it is also important that Italy has a high rate of poverty for women. Ultimately, this finding may illustrate some of the limitations of concentrating exclusively on measures like our sex poverty ratio. The level of women's poverty may be just as important as how much poverty is feminized.

Third, while many of our conclusions are descriptive, we also examine the factors associated with these dimensions of poverty. We find that women's, men's and overall poverty share some of the same correlates, though some are distinct to women or men's poverty. Economic growth, manufacturing employment, social security transfers, public health spending and labor force participation significantly influence both women's and men's poverty. Children in single mother families and female unemployment affect women's poverty, but those variables do not influence men's poverty. The percent of the population children and the percent of men elderly affect men's poverty, but not women's poverty. Most of these significant variables also influence overall poverty. Some of our findings were surprising. Notably, public employment does not significantly affect women's, men's, overall poverty, or the feminization of poverty. In contrast to the several symmetries in the sources of men's and men's poverty, the feminization of poverty has somewhat distinct sources. It is influenced exclusively by social security transfers, single motherhood and the sex ratios of the elderly and labor force participation. Our supplementary analyses suggest labor market institutions and women's presence in parliament do not significantly influence the feminization of poverty. Other demographic factors that we did not examine, but should be investigated in the future, are rates of marriage, divorce and cohabitation and how the changing patterns in these may be influencing men's, women's and feminized poverty.

Thus, one can judge the correlates of women's, men's and feminized poverty in comparison to liberal economic, structural and power resources explanations as evidence for feminist critiques of "similar causes." Like overall poverty, women's and men's poverty appear to be best explained by power resources theory. The welfare state is very powerful in reducing poverty for these three dimensions. Women, like men and the overall population, benefit from welfare generosity and this may not be consistent with some readings of the feminist critiques of "similar causes." However, unlike overall, women's and men's poverty, the feminization of poverty appears to be best explained by structural theory. Labor market and demographic variables have greater influence on the feminization of poverty, though social security transfers does play a role. In this way, the feminist critiques of "similar causes" are definitely supported.

If a society with low overall, women's and men's poverty is desirable, and reducing the feminization of poverty is considered worthwhile, one can read this paper optimistically or pessimistically. Optimistically, the feminization of poverty has modestly declined in the US since 1979, and in several other countries in recent years. Efforts to reduce overall poverty will most likely result in less poverty for both women and men. Finally, it is encouraging that the most basic welfare state measure—social security transfers—significantly reduces overall, women's, men's and feminized poverty. Generous welfare transfers (e.g. public pensions, poverty and unemployment assistance and family allowances) provide one very effective means to attack all dimensions of poverty in affluent Western democracies.

Pessimistically, poverty is feminized in almost all affluent democracies from 1969 to 2000, and feminization is higher in many countries than previously established. Women's poverty remains high relative to men's, though men's poverty appears to be rising while women's poverty appears stable. Even more troubling, reducing the

feminization of poverty will not naturally result from reducing overall poverty since the two are not very associated. Unlike past research that showed a strong association between gender pay inequality and overall pay inequality, the feminization of poverty does not correspond with overall poverty. Since several of the correlates are distinct, reducing overall, women's or men's poverty will not necessarily reduce the feminization of poverty. Overall, the feminization of poverty appears to be a nearly universal, but somewhat distinct social problem.

## Appendix A

Descriptive statistics and sources for variables ( $N = 93$ )

	Mean (SD)	Sources
<i>Dependent variables</i>		
Women's headcount	10.549 (3.777)	Luxembourg Income Study (LIS) <a href="http://www.lisproject.org">www.lisproject.org</a> , Authors' Calculations
Women's intensity	6.768 (2.506)	See above
Men's headcount	7.773 (2.776)	See above
Men's intensity	5.096 (1.904)	See above
Sex ratio headcount	1.397 (.339)	See above
Sex ratio intensity	1.374 (.340)	See above
LIS headcount poverty	9.510 (3.744)	LIS key figures, accessed at <a href="http://www.lisproject.org/keyfigures.htm">http:// www.lisproject.org/ keyfigures.htm</a> (December 2004)
Poverty Intensity	6.583 (2.428)	Brady (2003a); LIS
<i>Independent variables</i>		
Economic growth	2.600 (2.740)	OECD-Eco Sante Health <i>CD-Rom</i> (2003)
Productivity	48106.190 (8500.042)	OECD labor force <i>statistics</i>
Manufacturing employment	27.692 (5.692)	See above
Social security transfers	15.139 (4.328)	See above
Public health spending	75.431 (12.234)	OECD-Eco Sante Health <i>CD-Rom</i> (2003)
Public employment	11.771 (4.556)	Huber et al. (2004); OECD <i>labor force statistics</i>
Children in single mother families	2.139 (1.023)	LIS "Key Figures" (December 2004); OECD labor force <i>statistics</i>
% Population children	19.840 (2.939)	OECD labor force <i>statistics</i>
% Women elderly	16.238 (2.611)	See above
Female unemployment	8.291 (5.058)	See above
Female labor force participation	58.585 (10.399)	See above
% Women working part-time	27.975 (9.928)	OECD-Eco Sante Health <i>CD-Rom</i> (2003)
% Men elderly	11.347 (1.762)	OECD labor force <i>statistics</i>
Male unemployment	6.540 (3.342)	See above

(continued on next page)

**Appendix A** (continued)

	Mean (SD)	Sources
Male labor force participation	84.084 (6.735)	See above
Sex ratio elderly	1.433 (.126)	See above
Sex ratio unemployment	1.288 (.457)	See above
Sex ratio labor force participation	.698 (.120)	See above
Union density	51.989 (25.646)	Huber et al. (2004); N = 86
Wage coordination	3.047 (1.471)	Kenworthy (2001); N = 86
Women in parliament	7.505 (5.362)	Huber et al. (2004); N = 86

Notes. All sex ratios are female/male. “Headcount” is the percent of individuals that reside in households with incomes below 50% of the median. “Intensity” is the product of the headcount and the average depth of poverty among the poor.

**Appendix B**

Random effects models of overall poverty in affluent Western democracies, 1969–2000 (N = 93)

	Headcount	Headcount	Intensity	Intensity
Economic growth	-.246*** -.180 (-3.29)	-.256*** -.187 (-3.54)	-.195*** -.220 (-3.50)	-.183*** -.207 (-3.50)
Productivity	-.00002 -.055 (-.82)		-.00001 -.046 (-.57)	
Unemployment	-.175 -.174 (-1.63)	-.138 -.137 (-1.40)	-.085 -.130 (-1.19)	
Manufacturing employment	-.239*** -.361 (-2.81)	-.213*** -.323 (-2.82)	-.073 -.170 (-1.36)	
Children in single mother families	1.075*** .294 (2.73)	1.138*** .311 (2.98)	.625** .263 (2.36)	.656*** .276 (2.70)
% Population children	3.481 .027 (.26)		.743 .009 (.08)	
% Population elderly	.477** .271 (2.05)	.397** .225 (2.12)	.145 .127 (.92)	
Female labor force participation	-.133** -.370 (-2.44)	-.137*** -.381 (-3.10)	-.074** -.315 (-2.06)	-.020 -.086 (-1.04)
% Women working part-time	-.016 -.041 (-.38)		.014 .056 (.62)	
Social security transfers	-.314*** -.363 (-3.60)	-.305*** -.352 (-3.96)	-.146*** -.260 (-2.62)	-.121*** -.215 (-3.06)



## Appendix B (continued)

	Headcount	Headcount	Intensity	Intensity
Public health spending	-.122*** - <b>.398</b> (-3.31)	-.122 - <b>.397</b> (-3.65)	-.123 - <b>.622</b> (-5.61)	-.110*** - <b>.552</b> (-5.72)
Public employment	-.045 - <b>.055</b> (-.44)		.064 <b>.120</b> (.95)	
Constant	32.092*** (3.77)	30.745*** (6.09)	21.463*** (3.91)	16.842*** (9.68)
BIC'	-26.964	-34.895	-29.713	-41.731
R <sup>2</sup> Within	.343	.326	.162	.115
R <sup>2</sup> Between	.722	.732	.846	.841
R <sup>2</sup> Overall	.714	.715	.733	.721

Notes. For each independent variable, the unstandardized coefficient, *standardized coefficient in bold and italics*, and *t*-score in parentheses are displayed. All sex ratios are female/male. "Headcount" is the percent of individuals that reside in households with incomes below 50% of the median. "Intensity" is the product of the headcount and the average depth of poverty among the poor.

\* $p < .10$ .

\*\* $p < .05$ .

\*\*\* $p < .01$ .

**Appendix C**

Correlation matrix for variables ( $N = 93$ )

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
(1) Women's headcount																								
(2) Women's intensity	.990																							
(3) Men's headcount	.872	.899																						
(4) Men's intensity	.830	.875	.990																					
(5) Sex ratio headcount	.125	.059	-.335	-.379																				
(6) Sex ratio intensity	.133	.071	-.324	-.371	.993																			
(7) Economic growth	-.087	-.106	-.234	-.251	.240	.250																		
(8) Productivity	.229	.214	.246	.212	-.081	-.069	.056																	
(9) Manufacturing employment	-.141	-.154	-.295	-.302	.372	.395	-.074	-.281																
(10) Social security transfers	-.620	-.581	-.444	-.392	-.236	-.237	-.105	-.275	-.035															
(11) Public health spending	-.611	-.664	-.553	-.564	.030	-.003	-.090	-.189	.210	.270														
(12) Public employment	-.200	-.197	-.116	-.085	-.100	-.156	-.193	-.107	-.158	.075	.411													
(13) Children in single mother families	.479	.494	.376	.379	.061	.052	.084	.109	-.397	-.271	-.458	.263												
(14) % Population children	.443	.430	.360	.326	.045	.058	.022	.013	-.078	-.547	-.241	-.046	.315											
(15) % Women elderly	-.486	-.485	-.409	-.376	-.015	-.045	-.122	-.099	.255	.549	.431	.287	-.216	-.790										
(16) Female unemployment	.034	.034	.220	.198	-.372	-.357	-.193	.080	-.289	.229	-.081	-.340	-.354	-.087	-.068									
(17) Female labor force participation	-.056	-.038	-.021	.016	-.113	-.154	.007	-.111	-.330	-.021	.005	.680	.594	-.158	.262	-.505								
(18) % Women working part-time	-.037	-.013	-.065	-.018	-.021	-.044	.126	-.185	-.046	-.042	-.071	-.076	.197	-.004	-.009	-.341	.203							
(19) % Men elderly	-.322	-.321	-.157	-.128	-.216	-.260	-.188	.019	.016	.400	.413	.428	-.058	-.632	.852	.007	.355	.104						
(20) Male unemployment	.160	.143	.302	.270	-.320	-.318	-.146	-.094	-.457	.130	-.090	-.165	.058	.138	-.159	.748	-.166	-.215	-.075					
(21) Male labor force participation	-.116	-.123	-.199	-.193	.199	.200	.219	.166	.155	-.300	.145	.166	.111	.131	-.068	-.664	.249	.218	-.060	-.535				
(22) Sex ratio elderly	-.392	-.389	-.528	-.515	.351	.365	.076	-.231	.456	.360	.108	-.178	-.299	-.397	.410	-.160	-.094	-.208	-.125	-.186	-.015			
(23) Sex ratio unemployment	-.171	-.143	-.052	-.039	-.199	-.177	-.039	.115	.085	.216	-.033	-.357	-.583	-.287	.073	-.553	-.520	-.209	.090	-.086	-.314	-.030		
(24) Sex ratio labor force participation	-.031	-.010	.040	.074	-.195	-.236	-.065	-.161	-.407	.106	-.045	.620	.553	-.218	.300	.071	.920	.098	.380	.115	-.145	-.069	-.406	

## Appendix D

Estimates of adult women and men's poverty across 18 affluent Western democracies in LIS Data 1969–1998

	Year	Women's H	Women's HI	Men's H	Men's HI
Australia	1981	14.413	9.024	8.876	5.698
Australia	1985	13.611	8.411	8.191	5.249
Australia	1989	13.958	8.783	8.157	5.190
Austria	1987	10.141	6.135	3.231	1.954
Austria	1994	9.599	6.210	7.071	4.786
Austria	1995	10.146	6.995	8.696	5.956
Belgium	1985	5.026	3.131	4.232	2.635
Belgium	1988	5.194	3.201	4.213	2.610
Belgium	1992	6.061	3.606	4.776	2.936
Canada	1971	18.542	12.539	14.444	9.856
Canada	1975	16.796	11.115	12.073	8.011
Canada	1981	14.582	9.503	9.789	6.377
Canada	1987	11.492	7.371	8.775	5.720
Canada	1991	10.706	6.835	8.231	5.311
Canada	1994	11.051	7.054	8.725	5.643
Canada	1997	11.865	7.755	9.587	6.383
Canada	1998	13.083	8.555	10.127	6.742
Denmark	1987	12.821	7.999	10.115	6.512
Finland	1987	6.811	4.136	5.194	3.292
Finland	1991	8.124	4.935	5.059	3.196
Finland	1995	4.795	2.872	4.833	2.919
France	1979	8.964	5.771	7.195	4.746
France	1981	6.758	4.555	5.181	3.465
France	1984	12.458	8.972	11.475	8.456
France	1989	10.116	6.819	8.063	5.637
Germany	1973	9.527	6.207	5.514	3.562
Germany	1978	10.017	6.286	4.824	2.980
Germany	1981	7.357	4.614	4.834	3.099
Germany	1983	7.749	4.658	4.192	2.506
Germany	1984	9.651	6.253	5.665	3.613
Germany	1989	7.792	5.205	4.292	2.840
Germany	1994	9.592	6.145	5.933	3.883
Ireland	1987	13.404	8.477	11.480	7.385
Ireland	1994	12.884	7.524	8.335	4.798
Ireland	1995	13.747	8.080	9.395	5.663
Ireland	1996	14.122	8.410	8.588	5.078
Italy	1986	10.567	6.600	9.439	5.946
Italy	1987	11.377	7.372	9.671	6.420
Italy	1989	10.399	6.340	8.186	5.032
Italy	1991	10.891	6.635	8.130	4.997
Italy	1993	14.104	9.180	10.773	7.201
Italy	1995	14.271	9.279	11.504	7.760
Italy	1998	14.227	9.423	12.053	8.060
Luxembourg	1985	6.170	3.661	4.279	2.532
Luxembourg	1991	6.085	3.434	2.557	1.451
Luxembourg	1994	4.781	2.827	2.550	1.450
Luxembourg	1997	5.949	3.489	4.053	2.441
The Netherlands	1983	4.040	2.987	3.350	2.450
The Netherlands	1987	4.426	3.370	4.365	3.350
The Netherlands	1991	6.022	4.241	5.377	3.776

*(continued on next page)*

**Appendix D** (continued)

	Year	Women's H	Women's HI	Men's H	Men's HI
The Netherlands	1994	8.442	5.893	7.639	5.448
Norway	1979	5.591	3.781	4.230	2.863
Norway	1986	11.192	6.657	5.043	3.147
Norway	1991	9.115	5.426	4.381	2.939
Norway	1995	9.706	5.989	5.913	3.963
Spain	1980	12.459	7.971	11.389	7.293
Sweden	1975	8.908	5.524	6.658	4.364
Sweden	1981	4.582	2.992	6.407	4.221
Sweden	1987	8.239	5.510	8.847	6.106
Sweden	1992	8.131	5.472	7.288	5.132
Sweden	1995	6.939	4.989	8.516	6.235
Switzerland	1982	9.887	6.345	7.523	5.019
UK	1969	6.431	3.754	3.597	2.115
UK	1974	12.022	7.051	6.748	3.972
UK	1979	10.913	6.572	7.378	4.598
UK	1986	8.372	5.655	7.213	5.099
UK	1991	15.498	9.560	11.074	7.020
UK	1994	11.109	6.869	8.619	5.554
UK	1995	12.444	7.925	9.955	6.658
USA	1974	16.657	11.305	11.112	7.437
USA	1979	17.387	11.663	10.691	7.054
USA	1986	18.048	12.144	11.709	7.887
USA	1991	17.488	11.714	12.050	7.987
USA	1994	17.811	11.955	12.3111	8.186
USA	1997	17.415	11.619	11.775	7.774

Note. Cases were excluded from this table that were included in Table 1.

**Appendix E**

Random effects models of *working age* poverty in affluent Western democracies, 1969–2000 ( $N = 93$ )

	Women's poverty		Men's poverty		Sex-ratio in poverty	
	Headcount	Intensity	Headcount	Intensity	Headcount	Intensity
Economic growth	-.260 <sup>***</sup> (-3.43)	-.183 <sup>***</sup> (-3.34)	-.187 <sup>***</sup> (-2.71)	-.133 <sup>**</sup> (-2.56)	.003 (.31)	.003 (.38)
Productivity	-.00003 (-.92)	-.00003 (-1.22)	-.000004 (-.15)	-.00001 (-.56)	-.000002 (-.51)	-.000002 (-.48)
Female/male/sex ratio of unemployment	-.073 (-.85)	-.050 (-.83)	-.016 (-.18)	-.016 (-.24)	-.056 (-.67)	-.050 (-.58)
Manufacturing employment	-.292 <sup>***</sup> (-3.60)	-.198 <sup>***</sup> (-3.44)	-.228 <sup>***</sup> (-3.55)	-.150 <sup>***</sup> (-3.16)	.011 (1.59)	.010 (1.44)
Children in single mother families	.309 (.76)	.212 (.73)	-.195 (-.55)	-.144 (-.56)	.121 <sup>***</sup> (2.64)	.130 <sup>***</sup> (2.77)
% Population children	30.868 <sup>**</sup> (2.10)	21.331 <sup>**</sup> (2.02)	24.101 <sup>**</sup> (2.24)	15.517 <sup>*</sup> (1.93)	-.931 (-.66)	-.890 (-.61)
Sex ratio of % elderly	.508 <sup>***</sup> (2.61)	.361 <sup>***</sup> (2.61)	.605 <sup>***</sup> (2.88)	.420 <sup>***</sup> (2.70)	.559 <sup>*</sup> (1.80)	.593 <sup>*</sup> (1.86)

Appendix E (continued)

	Women's poverty		Men's poverty		Sex-ratio in poverty	
	Headcount	Intensity	Headcount	Intensity	Headcount	Intensity
Sex ratio of labor force participation	-.069 (-1.27)	-.057 (-1.47)	-.043 (-.99)	-.026 (-.81)	-1.203*** (-2.82)	-1.282*** (-2.93)
% Women working part-time	-.021 (-.51)	-.008 (-.29)			.001 (.18)	-.001 (-.15)
Social security transfers	-.212** (-2.42)	-.148** (-2.37)	-.129* (-1.69)	-.086 (-1.53)	-.016** (-2.00)	-.016* (-1.92)
Public health spending	-.138*** (-3.72)	-.109*** (-4.22)	-.121*** (-3.64)	-.093*** (-3.83)	.004 (1.25)	.004 (1.16)
Public employment	-.080 (-.77)	-.023 (-.31)	-.031 (-.38)	-.005 (-.08)	-.002 (-.21)	-.003 (-.28)
Constant	23.453** (2.55)	17.065*** (2.62)	18.109*** (2.82)	12.959*** (2.73)	1.010 (1.00)	1.041 (1.01)
BIC'	-38.933	-40.493	-30.091	-26.704	-2.845	-3.276
R <sup>2</sup> Within	.411	.391	.481	.426	.288	.284
R <sup>2</sup> Between	.654	.682	.566	.592	.551	.563
R <sup>2</sup> Overall	.633	.640	.577	.561	.460	.462

Notes. For each independent variable, the unstandardized coefficient and *t*-score in parentheses are displayed. All sex ratios are female/male. "Headcount" is the percent of individuals that reside in households with incomes below 50% of the median. "Intensity" is the product of the headcount and the average depth of poverty among the poor. If one removes the sex ratio of % elderly, the other results are consistent. To make the models symmetrical with Table 5, we retained this variable.

- \* *p* < .10.
- \*\* *p* < .05.
- \*\*\* *p* < .01.

Appendix F

Stata program for computing women's and men's poverty in the LIS (with example of US 1974)

```
#delimit;

program define person;
gen women=0;
replace women = 1 if psex==2 & page > 17;
gen men=0;
replace men=1 if psex==1 & page > 17;
gen ewomen=0;
replace ewomen=1 if psex==2 & page > 64;
gen emen=0;
replace emen=1 if psex==1 & page > 64;
gen awomen=0;
replace awomen=1 if psex==2 & page > 17 & page < 65;
gen amen=0;
replace amen=1 if psex==1 & page > 17 & page < 65;
end;

program define setup;
drop if d5==3;
drop if dpi==.;
drop if dpi==0;
drop if dpi==-1;
drop if hweight==.;
```

(continued on next page)

**Appendix F** (*continued*)

---

```

#delimit;
replace hweight=0.01 if hweight==0;
generate ey=(dpi/(d4^0.5));
generate pwt=hweight*d4;
qui sum ey [w=pwt];
gen botlin=0.01*_result(3);
replace ey=botlin if ey < botlin;
qui sum dpi [w=pwt], de;
gen toplin=10*_result(10);
replace ey=(toplin/d4^0.5) if dpi > toplin;
qui sum ey [w=pwt], de;
qui gen povl=_result(10)*.5;
gen pov=0;
replace pov=1 if ey < povl;
gen povg = r(p50)-ey if pov==1;
gen stpovg=povg/(povl*2);
end;
program define sexw;
gen wweight = hweight*women;
gen mweight = hweight*men;
gen ewweight = hweight*ewomen;
gen emweight = hweight*emen;
gen awweight = hweight*awomen;
gen amweight = hweight*amen;
end;
program define povrate;
display "Women Poverty";
sum pov [aweight=wweight];
display "Men Poverty";
sum pov [aweight=mweight];
display "Elderly Women Poverty";
sum pov [aweight=ewweight];
display "Elderly Men Poverty";
sum pov [aweight=emweight];
display "Working Age Women Poverty";
sum pov [aweight=awweight];
display "Working Age Men Poverty";
sum pov [aweight=amweight];
end;
program define stpovg;
display "Women Gap";
sum stpovg [aweight=wweight];
display "Men Gap";
sum stpovg [aweight=mweight];
display "Elderly Women Gap";
sum stpovg [aweight=ewweight];
display "Elderly Men Gap";
sum stpovg [aweight=emweight];
display "Working Age Women Gap";
sum stpovg [aweight=awweight];
display "Working Age Men Gap";
sum stpovg [aweight=amweight];
end;
use $us74p, clear;
keep casenum page psex;
sort casenum;
save $mydata\us74p.dta, replace;
person;
save $mydata\us74p.dta, replace;

```

**Appendix F** (*continued*)

---

```
#delimit;
```

```
use $us74h;
```

```
keep casenum hweight d4 d5 dpi;
```

```
setup;
```

```
sort casenum;
```

```
save $mydata\us74h.dta, replace;
```

```
merge casenum using $mydata\us74p.dta;
```

```
sexw;
```

```
display "US 74";
```

```
povrate;
```

```
stpovg;
```

---

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