

# Beyond the Big Picture: Gender Influences on Disaggregated and Domain-Specific Measures of Social Spending, 1980–1999

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Three issues are central to, but underdeveloped in, theoretical debates about the welfare state. First, the array of welfare services is of equal, or greater, importance than welfare transfers; second, spending varies across substantively different domains; and third, the welfare state is profoundly shaped by gender. While a comprehensive body of research has provided many claims and critiques on these points, their potential for empirical examination has not been fully realized. This article addresses these points by analyzing development according to substantively disaggregated measures of welfare spending, as well as theorizing and testing explicit gender-relevant influences alongside established indicators. Results from cross-sectional and fixed-effect models indicate that established factors are particularly relevant for transfer spending, and much less so for services. Notably, gender measures emerge as strong determinants of services spending generally, but the specific impact of gender varies according to both the substantive spending domain and the aspect of gender being measured. The findings, overall, show strong support for the broader inclusion of gender, and the utility of moving beyond programmatic generalist approaches.

I thank the anonymous reviewers, Edwin Amenta, David Brady, Clem Brooks, Ann Hironaka, David John Frank, David Meyer, Patricia McManus, Brian Powell, Robert Robinson, Evan Schofer, and members of the UCI Gender, Work, and Family colloquium and the UCI International and Comparative Sociology workshop for their comments on earlier drafts.

Published by Cambridge University Press 1743-923X/11 \$30.00 for The Women and Politics Research Section of the American Political Science Association.

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doi:10.1017/S1743923X10000553

## INTRODUCTION

An important body of literature has comprehensively studied the trajectory of social spending cross-nationally, and concluded that a variety of demographic, economic, and political characteristics determine differences within and between industrialized Western democracies. In the bulk of these models, spending is aggregate and gender is implicit. However, none of the theoretical underpinnings of prior work, including the insights gained from historical, qualitative, and feminist analyses, suggests that social spending is monolithic or gender neutral. In fact, there is strong reason to believe that determinants of spending, and variation between nations in spending, differ according to types of spending, policy domains, and levels of gender equality. Building on previous empirical and theoretical work, this article offers a gender-relevant, over-time, comparative approach to modeling welfare state spending, with attention to cash and services portions and substantive domains (namely, family, health care, and old age benefits). Simultaneously, two main questions arise: (How) does it matter if spending is disaggregated and treated as domain specific? And why and how might gender matter in particular for such an approach?

The potential advantages of considering spending from a disaggregated and domain-specific perspective are highlighted by the theoretical importance of women's growing equality to men in politics and the economy, and women and men's changing family roles. These changes are a potential influence on spending within nations and a way of understanding variation across nations. The incorporation of explicit gender-relevant measures is anticipated by a variety of prior theory and research. When gendered measures in full models of varying forms of spending are competitively tested, results suggest that gender equality may be central in shaping the scope and generosity of spending.

## CONCEPTUALIZING WELFARE STATE SPENDING

Understanding variation in welfare state spending matters because spending has far-reaching effects on a variety of social issues and problems. Indeed, questions over the expansion (or contraction) of welfare states are central to other fields, such as democratic politics and globalization. Debates over cuts to, or the expansion of, programs often

revolve around spending, carrying high political stakes (Brooks and Manza 2007; Pierson 2001). Spending has been commonly used to indicate national priorities to public social programs and policies (Castles 2004; Huber and Stephens 2001; Wilensky 1975), and the decision by Western industrialized democracies to commit funding to social programs exerts an impact directly on poverty and inequality (Brady 2005). Spending has even been characterized as a means of protecting civil and political rights, since destitute citizens are less capable of engaging politically and lack vested ownership in the economy (Bussemaker and van Kersbergen 1994; Esping-Andersen et al. 2002). Programs funded by the state intervene in many life-course events that used to be the sole domain of church, family, or neighborhood, and provide payments and services related not just to employment but also to child care, health care, job training, disability, elder care, and sickness. Thus, to the extent that we understand where and why nations differ in their spending, we gain insight into the capacity of states to influence a variety of social issues.

Past quantitative studies of welfare state spending have typically been situated in a market-centered rationale, and many studies focus on cash transfer benefits as a norm. This obscures qualitative differences in types of spending, specifically in terms of services and social domains of influence (Castles 2002; Huber and Stephens 2000; Jensen 2008); underestimates the scope of the welfare state (Fraser and Gordon 1994); and undervalues the importance of gender differences in welfare state engagement (Adams and Padamsee 2001; Gornick, Meyers and Ross 1997; Orloff 1993a). Indeed, the problems addressed by spending are qualitatively diverse. Facing aging populations, declining fertility rates, and destabilizing global markets, many nations have restructured their social spending (Pennings 1999; Pierson 2001). Scholars of gender and the welfare state point out that gender inequality may matter differently across policy areas, and least for spending on well-established (and traditionally male life course oriented) programs, such as pensions. Acknowledging these diverse needs and varying influences demands greater attention to domain-specific models of social spending (see also Jensen 2008).

### Cash Transfer versus Social Services Spending

Cash (employment-related) benefits formed the beginnings of the modern welfare state, while expansion into services was often a secondary effort. However, the politics of, and influences on, welfare state creation are different from those of welfare state persistence, meaning there is further

reason to expect that the two types of benefits may be influenced differently (Brooks and Manza 2007; Esping-Andersen 1996; Pierson 2001). More specifically, cash transfer spending is typically an employment-dependent privilege. The eligibility, amount, and duration of such benefits, like pensions, depend on how consistently and effectively a citizen participated in the formal labor market. Based on these characteristics, such benefits are likely less helpful to women regardless of the domain. Women are more likely to be single mothers, experience financial hardship following a divorce, and be doubly burdened with caring for the youngest and oldest generations; each of these experiences weakens labor market ties (Esping-Andersen 2002; Kilkey and Bradshaw 1999). Additionally, women are more likely to be employed intermittently and work in “bad” jobs that are part time and/or provide few to no benefits, making it difficult for women to accrue pensions, unemployment benefits, and sick leave (O’Connor, Orloff and Shaver 1999; Orloff 1993b; Sainsbury 1996). Furthermore, cash transfers may also be used to insulate traditional family arrangements, explicitly encouraging women to forgo employment for caring responsibilities (Morgan and Zippel 2003; van Kersbergen 1995). For example, although family cash allowances are not necessarily employment dependent, they may support expectations of women’s underemployment. Indeed, the original purpose of core employment insurance programs was to protect the role of male breadwinners as the custodians of dependent wives and children.

Social services are generally framed as citizenship rights that are available regardless of employment; national health care, day care, state-run nursing homes, and job training serve as a handful of examples. Services are a major proportion of all spending, but such spending is qualitatively different from cash transfer spending (Huber and Stephens 2000). In comparison to transfer benefits, the universal nature of social services may benefit women, in particular, given their weaker labor market ties (Esping-Andersen 2002; Huber and Stephens 2000; Sainsbury 1994). It also may strengthen women’s ties to the labor market and access to cash transfer benefits by removing obstacles such as child care. Such nontransfer spending often acts as a human capital investment, providing a potential competitive advantage for nations with high amounts of social services (and spending in general) (Esping-Andersen et al. 2002).<sup>1</sup>

1. Of course, not all services are universally available, and the United States in particular provides mainly means-tested services that are stigmatized and regulated. Nevertheless, these are primarily used by women, while men disproportionately benefit from the more generous and accepted employment-related benefits.

## Social Spending Domains

In addition to overall differences in cash versus service spending, there may be differences within substantive domains. Specifying areas of particular interest better addresses theoretical concerns, such as debates over the nature of welfare state regress or austerity, qualitative differences between nations that spend similar amounts, and more careful attention to hypotheses forwarded by gender and feminist literatures. For example, parental policies can represent multiple spending configurations. If states financially subsidize child-care services rather than families directly, such as in Sweden, then the state takes responsibility from the individuals and passes it onto society at large. In this case, the aggregate spending level may be high, but it is focused on family service provision and not cash benefits. Alternatively, a state may significantly subsidize a parent (usually the mother) to stay home with children, such as in Germany, prioritizing traditional family forms over the market or government provision of child care (Morgan 2003). This may lead to similarly high levels of family spending overall, but little service provision.<sup>2</sup> In this comparison, a focus on aggregate spending on family policies would mask important differences in spending priorities.

Notably, gender and feminist scholarship suggests that the influence of gender on welfare state development is domain specific. On average, women are shown to have different interests in, and potential benefits from, various types of social spending (Hernes 1987; Pateman 1988 [1970]; Sainsbury 1994). The social construction of gender and the life-course events experienced by women tend to link more strongly to family responsibilities. These experiences also tend to create weaker labor market ties for women as compared to men (Bem 1993; Gornick and Meyers 2005; Orloff 1993a; Sainsbury 1994). Family obligations directly undermine women's participation in the labor force. They often drop out of the labor force to provide family care (Bielby 1992; Esping-Andersen 2002; Leira 2002), work shorter hours in order to make meals or run family errands (O'Connor, Orloff and Shaver 1999; Rosenfeld and Birkelund 1995), and relocate in order to improve a husband's career (Bianchi, Casper and Peltola 1999; Bielby and Bielby 1992). Thus, women lose equal access to the broad spectrum of citizenship

2. A further consideration, beyond the scope of this article, is that national approaches to services provision may also differ substantially in the gender expectations undergirding them, and their utility for women's labor force participation (Morgan 2003).

rights and benefits that are linked to employment (Lister 2003). The impact may be heightened by efforts of national governments to subsidize women as family caregivers (Morgan and Zippel 2003). Alternatively, government provision of services, such as child care, expanded access to health care, and services for the elderly, could reduce women and men's dependence on traditional roles (Gornick and Meyers 2005) and enable more androgynous life-course patterns for both (Haas 1990; Rønsen and Sundström 2002).

## GENDER INFLUENCES ON WELFARE STATE SPENDING

Welfare state spending research can benefit from explicit theoretically informed, gender-relevant measures. The importance of gender for welfare state development is not "new," especially considering that established measures in quantitative research have historically been biased toward traditional gender expectations and men's role therein (particularly men's claims as "breadwinners") (Orloff 1993a). In general, the organization and provision of benefits is inherently intertwined with assumptions regarding gender differences, patriarchy, and biological essentialism (Bem 1993; Haney 1996). Including measures of women's equality simply makes gender an explicit (rather than implicit) factor. The theoretical importance of gender is implicated by a wide range of established research and feminist and gender literatures (Adams and Padamsee 2001; Hobson and Lindholm 1997; Koven and Michel 1993; Skocpol 1992). I borrow and build upon these insights to focus on gender in three aspects: market, family, and state (O'Connor, Orloff and Shaver 1999). While the gender measures utilized here speak mainly to women's equality, it is important to note that gender is an inherently relational concept (Adams and Padamsee 2001). In referring to these measures as "equality," I acknowledge historical patterns that have systematically excluded women from formal economic and political power and family autonomy. Thus, as women make gains in these areas, I frame these gains as increasing gender equality relative to men.

Of course, even as the measures used here represent a more inclusive approach, limitations remain. Namely, for each area of women's equality, prior theory and research outline *multiple* potential mechanisms that link measures of changing gender equality to spending (Bem 1993; Haney 1996; Orloff 1993a; Sainsbury 1996). Women and

men are internally varied groups, and so any aggregated analysis necessarily underestimates the extent to which goals and interests vary among them. In this analysis, I cannot distinguish completely which particular mechanisms might operate or how specific variations in state interventions and the construction of gender matters for these mechanisms. What follows, therefore, is a *conservative* test of potential gender influence. Finding that a measure of gender influence is significantly linked to some forms of spending, however, confirms the importance of such changes for spending outcomes and provides a good basis for the continuing inclusion of such measures in quantitative models. Importantly, this overcomes the tendency by prior research to consider women only as the objects of policy (policy takers) and underestimate the potential for women to exert influence as policymakers or shapers (Sainsbury 1996).

### Women's Economic Participation

One of the most dramatic social and economic changes in the past 50 years has been the large-scale entrance of women into the labor force. The percentage of employed women has continued to increase and with it, the characteristics of employed women have also changed. While the 1970s saw primarily single women employed, many working women today are married and/or are mothers, with a great deal of employment growth among women with very young children (Drobnic, Blossfeld and Rohwer 1999; Mason and Jensen 1995). Women retain increasingly strong commitments to their careers and aim for higher prestige and power positions (Stier, Lewin-Epstein and Braun 2001). All of these changes have implications that reverberate through multiple sectors of society, and may in turn increase use of family policy, affect participation, and reshape electoral loyalties.

Prior research suggests two complementary causal mechanisms that may link women's employment to service spending outcomes (Bolzendahl 2009; Huber and Stephens 2000). First, there is the expectation that women's employment fuels demands for help in balancing work and family life, creating direct pressure for increased parental and child-care leave policies (Bolzendahl and Olafsdottir 2008; Morgan and Zippel 2003) and influencing outcomes such as family wages, marital subsidies, and child benefits (Kilkey and Bradshaw 1999; Montanari 2000; Stier, Lewin-Epstein and Braun

2001). To the extent that women have been underemployed, the struggle is not for increased employment-based benefits per se but, rather, for services directly provided (O'Connor, Orloff and Shaver 1999). Such demands may be increased by the changing nature of the workplace; shifts from an hourly to a "performance"-based evaluation of employment do not give women the flexibility to excel, but merely reify male employment advantages (Van Echtelt et al. 2009). We would expect women's employment to be linked to the expansion of spending on services that protect work/family balance, such as family, health-care, and elderly services.

Second, as suggested by power resource theorizing, there is political power behind women's labor force participation (Huber and Stephens 2000). To the extent that employed women are able to mobilize as a group and develop a set of politically viable interests and demands (Iversen and Rosenbluth 2008), they have the capacity to influence social spending more broadly. In particular, women's employment is typically different from men's, with women more often employed part time and in service industries, government bureaucracies, health care fields, and clerical positions (Charles 1992; Gornick and Jacobs 1998; O'Connor, Orloff and Shaver 1999; Rosenfeld and Birkelund 1995).<sup>3</sup> Thus, as both beneficiaries and as current and future employees of government agencies and service providers, women may advocate the expansion of welfare state spending on services in general.

On the basis of prior theory and research, I propose the *Women's Economic Equality Hypothesis*: As women's economic participation increases, nations will spend more on social policy as a whole, with the most consistent positive relationships found for spending on family, health-care, and elderly services, and weak positive or insignificant relationships to cash benefit spending.

### Women's Family Autonomy

Debates over the role of traditional family forms within modern society have been some of the most contentious in recent years. They include

3. It is further important to note wide variation in women's employment characteristics across nations, an issue this analysis cannot directly test. For example, in some nations (e.g., Sweden and the Netherlands) part-time work is prevalent for women, and these women are also less likely to be employed in financial industries or in top business positions as compared to women in liberal democracies (Orloff 2002); O'Connor, Orloff, and Shaver 1999; Rosenfeld and Birkelund 1995).



concerns over morality, fertility, productivity, sexuality, agency, and equality, with policies providing contradictory “solutions” often based on gendered assumptions (Montanari 2000; Morgan 2003; Morgan and Zippel 2003). Certainly, the well-documented movement away from nuclear, marital, heterosexual families with relatively high rates of fertility has been a major change in gender relations (Mason and Jensen 1995; Powell et al. 2010).<sup>4</sup> Overall, the informal and unpaid work of home and caring, which has primarily been women’s responsibility, is increasingly contested (Korpi 2000). While the pace of change has been slow in comparison to women’s employment, women (and men) are increasingly opting out of rigid gender roles in the home (Blossfeld et al. 1995; Fuwa 2004; Hook 2006).

The main mechanism linking family change to spending is women opting out of traditional family expectations by forgoing (or delaying) marriage, children, or both. Traditional family forms have pressured women into the provision of private, unpaid social work (cleaning, caring, nursing, child rearing), with such expectations shaping state policy (Morgan 2003). Married women may have less egalitarian views on family responsibilities (Kane and Sanchez 1994) and thus be more likely to forgo career opportunities and economic advantage in the interests of husbands, children, and/or parents (Bianchi, Casper and Peltola 1999; Bittman et al. 2003).<sup>5</sup> Therefore, as traditional family forms decrease, this may signal the need for, or use of, more provision vis-à-vis the state, because women no longer provide welfare services privately and freely. Nations with a greater percentage of citizens in traditional family forms should depend less on a variety of services, and family services in particular, because these remain the private, unpaid provision of families. In these nations, however, there should be more spending on cash transfer benefits, which enable women to remain caregivers (e.g., family cash allowances) and protect the breadwinner role of men (e.g., pensions).

Hence, I propose the *Traditional Family Dependence Hypothesis*: The more reliance on traditional family forms within a nation, the less that

4. Indeed, issues of delayed or forgone marriage, trends toward cohabitation, and declining fertility are major concerns for most Western democracies (Esping-Andersen, et al. 2002).

5. Women’s economic opportunities are, of course, related to their autonomy in relationship formation and dissolution and in fertility rates. Dual-earner families have less time for unpaid household work, child rearing, and caring work, creating higher levels of work–family conflict, and women’s entry into marriage may be increasingly related to their earning potential.

nation will spend on social services, particularly family services, and the more it will spend on cash benefits.

### Women's Political Representation

Spending decisions are ultimately political decisions, shaped by lawmakers who form committees, develop legislation, and respond differentially to constituent demands (Pierson 2001). Women's access to political power shapes their collective capacity to influence government policymaking directly in translating demographic and economic pressures related to gender relations into public policy change; it also frames women as policymakers (Hernes 1984; Sainsbury 1996). Theory and scholarship in this area offer a variety of reasons why there should be a relationship between women's political power and spending outcomes. Prior research has examined women's political influence through a variety of approaches, including access to bureaucratic power (O'Connor, Orloff and Shaver 1999; Stetson and Mazur 1995); through movements and issue organizations (Katzenstein 1987; Klein 1994; Koven and Michel 1993; Roth 2007); and via a combination of both (Chappell 2002). Perhaps the most direct measure of women's political power over social spending is the extent to which they are elected to public office. Notably, all of these measures are theoretically intertwined, leading to a variety of potential mechanisms that would cause women's presence in national legislatures to influence spending.

The role of female legislators in influencing spending outcomes may be traced back to broader theoretical considerations regarding the meaning of representation and, particularly, to the question of whether descriptive representation leads to substantive representation. A variety of research suggests that it does. First, researchers find that female legislators are more invested in, and vocal about, spending tied to important welfare state issues such as health care, family benefits, education, and childhood development than are their male counterparts (Bratton and Ray 2002; Bystydzienski 1992; Waring, Greenwood and Pintat 2000; Welch 1985). In part, women elected to office may represent the institutionalization of goals forwarded by women's movements and organizations, including efforts to increase and improve women's political representation (Caiazza 2004; Campbell 2004; Carroll 2001; Swers 1998). This work would suggest that women are beholden to particular issues defined as "women's interests," thus indicating that their political power matters only for "women-friendly" policies, such as those related to family benefits (Bratton and Ray 2002; Misra 2003; Schwindt-Bayer and Mishler 2005).

Yet research also points to the potential for indirect mechanisms at work. Specifically, greater awareness of gender discrimination and inequalities, and support for women's entry into nontraditional lifestyles may have changed men's and women's expectations regarding female candidates and shaped greater support for the types of social goals often linked to women's equality (Paxton and Kunovich 2003). The election of women to legislatures and support for policies that encourage women's equality may go hand in hand. Finally, changes in women's employment, family formation, and gender attitudes also shift electoral landscapes, leaving citizens without a clear partisan camp and potentially opening new constituencies for female legislators (Iversen and Rosenbluth 2008). In this case, women might be elected as part of a broader push for an expanded commitment to social spending.

On the basis of these studies, I propose two additional hypotheses. First, the *Women's Political Equality Hypothesis*: In nations where women hold more formal political policymaking power, there will be more spending on all social policy outcomes. Alternatively, the *Women's Political Interest Hypothesis* states: In nations where women hold more formal political policymaking power, there will be more spending on social services and no relationship to spending on cash benefits.

## DATA AND MEASURES

I specify welfare state spending in terms of overall spending, but also create measures of spending on cash transfers versus services as a whole and cash and services spending among substantive domains. In general, spending measures have been central to established welfare state research (Brooks and Manza 2006; Castles 2004; Huber and Stephens 2001; Wilensky 1975), though this research has not fully considered the importance of gender-relevant influences and disaggregated outcomes. Theoretically, a focus on government spending evaluates national priorities in *public* outlays (necessarily excluding *private* or tax-based approaches to the provision of social goods). Placing GDP in the denominator transforms these priorities in relative terms, recognizing that states may vary in terms of overall economic productivity. Finally, this measure represents a crucial improvement over some earlier (and continuing) welfare state research that only predicts spending or policy developments among social insurance/cash transfer measures (Brooks and Manza 2007, p. 38),

at the expense of excluding the *overall* commitment of states to social spending, such as the many services governments provide that may be particularly relevant to gender equality (Huber and Stephens 2001; Sainsbury 1996).<sup>6</sup>

I theorize and measure major gender influences on welfare state development, collecting and assembling data from secondary sources. All spending measures are from the OECD Social Expenditures Database. Data for measures of established welfare state development influences are taken from the Comparative Welfare State data set (Huber et al. 2004), with updates of these incorporated from the OECD databases.<sup>7</sup> Twelve capitalist democracies are included: Australia, Canada, Denmark, Finland, France, Germany, Great Britain, Italy, the Netherlands, Norway, Sweden, and the United States.<sup>8</sup> Given the difficulty of putting together complete data across measures and over time, these 12 nations maximize data availability and represent a balance of nations across the broadly recognized welfare regime classifications.

Data are from 1980 to 1999.<sup>9</sup> Descriptive statistics for the dependent variable measures are available in Table 1. (See Appendix Table A for country-specific means in spending, changes in levels of spending over time, and changes standardized by mean levels.) In general, spending commitments correspond to those nations with the most generous welfare state, and the social democracies tend to spend the most (e.g., Sweden and Norway), followed closely by, and often overlapping with, conservative democracies (e.g., Germany and the Netherlands). The least comprehensive liberal market democracies spend far less (e.g., the United States and Australia).

6. Using programmatic indicators, other researchers have explored issues of welfare state austerity, retrenchment, generosity, realignment, and commitment to (racial/immigrant/ class/gender) equality — issues that are related to, but separate from, this analysis. Specifically, questions of overall government social spending commitment are separate from questions of social spending goals or outcomes (Bussemaker and van Kersbergen 1994). Finally, even programmatic measures contained in the Social Citizenship Indicators Project (Korpi and Palme 2008) and Welfare State Entitlement (Scruggs 2004) data sets exclude information on services, making them less useful for examining gender issues.

7. Updates of OECD data are extracted from the following OECD databases: National Accounts, Main Economic Indicators, and Labour Force Statistics (available at <http://www.oecd.org>).

8. Notably, the United is somewhat unique in that it relies so little on public spending, so heavily on tax expenditures, and even services often not universal, but means tested and strictly regulated. However, as indicated in the following, excluding the United States did not influence the results.

9. Several of the nations are missing data on the dependent variables in 1999. Furthermore, individual spending measures vary in the number of missing values, leading to some variation in number of observations across models. When spending within domains is aggregated (e.g., total family spending), the observations necessarily drop to that of the smallest constitutive measure (i.e., N = 213 for family services, thus N = 213 for total family spending).

Table 1. Welfare state spending outcome measures, means, and standard deviations

<i>Welfare State Spending</i>	<i>As a Proportion of GDP...</i>	<i>Mean (SD)</i>
<b>Total spending</b>		
Total social spending	Public expenditures on all social provision	23.26 (6.08)
<b>Cash and services<sup>a</sup></b>		
Cash transfer spending	Public expenditures on selected cash transfer benefits	12.27 (3.74)
Social service spending	Public expenditures on selected social services	8.68 (2.90)
<b>Spending domains</b>		
Family cash benefits	Public expenditures on family cash benefits	1.40 (.65)
Family services	Public expenditures on family services	.78 (.69)
Health cash benefits	Public expenditures on cash sickness and disability benefits	2.39 (1.63)
Health care services	Public expenditures on health care	6.15 (.98)
Old age cash benefits	Public expenditures on old age cash benefits	6.84 (2.28)
Old age and disability services <sup>b</sup>	Public expenditures on old age and disability services	1.07 (1.05)

<sup>a</sup>Cash benefits include spending on old age, sickness, family, and unemployment benefits. Services include spending on old age and disability, family, active labor market programs, and health care.

<sup>b</sup>Spending on disability services cannot be distinguished from spending on old age services as provided by the OECD. Cash benefits for the disabled are included in health cash benefits. Canada is missing for old age and disabled services.

## Measures of Social Spending

The first dependent variable is *total social spending*, measured as all public spending on both cash transfer benefits (e.g., unemployment and pensions) and social services (e.g., state-funded child care and elder care) (OECD 2004). In order to adjudicate the impact of changing gender resources on the nature of welfare state development, I separated total social spending into *cash transfers* and *social services*. Both are measured as a proportion of GDP. These measures are balanced to ensure that each includes spending on matched components. More specifically, the measurement of cash transfers includes data for spending on old age and disability, sickness benefits, family spending, and unemployment. The measure of social services is comprised of spending on services for the elderly and disabled, health care, family services, and active labor market programs. The three domains analyzed include *family*, *health*, and *old age* spending. Each is further divided into cash and service portions. All domain spending data are from the OECD Social Expenditures Database (OECD 2004). These areas reflect data availability and

completeness, and the ability to adjudicate between both cash and services oriented spending within theoretically and substantively relevant social programs.<sup>10</sup>

## Influences on Welfare State Spending

Based on previous research, a number of established influences on welfare state development must be included, and all controls are presented in Table 2. I also include three explicit measures of gender-relevant influences. Finding theoretically appropriate measures of these influences that are available over time and cross-nationally is difficult. The influence of women's economic, familial, and political equality is here converted into specific measures that act as a proxy for the theoretical concepts reviewed previously. Thus, while historical and case-study approaches provide much of the theoretical background for the inclusion of gender, the operationalization of gender influences cannot completely replicate these fine-grained approaches.

First, using the same one-year lagged measure as provided by the Comparative Welfare States Dataset (CWS) (Huber et al. 2004) and recent work (Brooks and Manza 2007; Huber and Stephens 2000; 2001), I expect a positive relationship between *women's labor force participation* and overall welfare state spending, particularly of services spending. On average, over the time period, women's employment has increased by more than 10% (from 56% to 66%).

Second, I include a proxy for traditional family formation: the *number of marriages per 1,000 persons* obtained from the United Nations Demographic Yearbooks.<sup>11</sup> Higher marriage rates are used to represent a greater dependence on the traditional breadwinner-homemaker household pattern, suggesting that women continue to be financially dependent on a male employee who receives the bulk of employment policy benefits, while the wife provides unpaid social care privately. In other words, higher marriage rates should be linked to lower levels of spending on services, and potentially a greater reliance on cash benefits.

10. The following categories of spending were excluded from cash/services measures because they did not clearly fit in either category, could not be divided into consistent domain measures, and/or had substantial amounts of missing values: occupational injury and disease, survivors' pensions and benefits, housing benefits.

11. Based on prior theory, some additional aspects of gender related to parenthood and the division of household labor would also be relevant. However, these are not available at the country level, for all countries, and/or for all time points.

Table 2. Welfare state spending influence measures, means, and standard deviations

<i>Welfare State Spending Influences</i>	<i>Measure</i>	<i>Mean (SD)</i>
<b>Gender measures</b>		
Economic resources	Percent working age women in the labor force as a proportion of all women <sub>t-1</sub>	62.86 (10.68)
Family autonomy	Marriage Rates per 1,000 pop.	6.00 (1.49)
Political resources	Percent women in national legislature	17.88 (11.86)
<b>Established measures</b>		
Trending	Year	—
Economic structure	Standardized unemployment rate	7.40 (2.84)
	Percent of population 65 and older	13.83 (2.12)
	Per capita gross domestic product in thousands of U.S. dollars	20.01 (3.30)
State-centered	Additive Scale of Constitutional Structure/Veto Points ( $\alpha = .56$ )	2.26 (1.80)
Power resources ( <i>ref: center, liberal parties</i> )	Percent left party seats	35.75 (40.82)
	Percent right party seats	32.47 (40.29)
	Percent religious party seats	14.42 (27.16)

Over the time period, marriage rates have declined from about 6.6 to 5.4 per thousand.

Finally, as established in previous research (Bolzendahl and Brooks 2007), the *percent of women in national legislature* is expected to exert a significant increase on social spending. Over the time period, this measure has more than doubled in the sample, from about 12% to 24% of women in legislature. These data were collected from country-specific sources as well as secondary sources (Katz and Mair 1992). In addition to the previous positive effect on increasing total levels of spending, women's political representation may be particularly important for increasing services spending as a whole and across domains. If female legislators are more supportive of the welfare state as a whole, however, then their effect on spending may be more consistently positive across the disaggregated measures.

Established theories of welfare state development, including modernization, power resources, and state-centered approaches, suggest a variety of influential measures to include as controls. All of the controls discussed here reflect prior theory and are standard to models of welfare state spending (Amenta 1993; Brooks and Manza 2007; Hicks and Misra 1993).

These are listed at the bottom of Table 2. These measures were obtained from CWS (Huber et al. 2004), with updates from the OECD. I include a measure of demographic pressures through a variable for the *elderly population*,<sup>12</sup> and macroeconomic factors through the *unemployment rate* and *per capita gross domestic product* (GDP). Increases in the elderly population have been found to increase total spending, but I also expect a significant positive relationship with spending on pensions, old age services, and health care in particular. Higher unemployment rates are generally linked to higher levels of spending overall and employment-related transfer benefits, but may only matter indirectly and weakly for increased services spending. For every measure, higher levels of GDP are expected to increase spending, as an indicator of greater resources available to the government.

To consider the internal organization of states, I include a measure of the *constitutional structure*, or the number of governmental “veto” points. This is obtained through an additive scale of the degree of federalism: the presence of a presidential or parliamentary system, the strength of bicameralism, and the presence of judicial review (Hicks and Misra 1993). A country’s government structure may strongly influence the frequency and nature of policies introduced and implemented, the partisan character of governments such that more veto points will suppress spending (Hicks and Misra 1993) regardless of domain and type of spending.

I control for the partisan character of government as an influence on social policy developments (Hicks and Misra 1993; Huber and Stephens 2000), measuring the degree of *left*, *right*, and *religious party control* in each nation (the reference is liberal, center, and nontraditional parties) (Castles and Mair 1984; Gabel and Huber 2000).<sup>13</sup> Overall, left party strength should be linked to higher levels of spending, especially on services. Religious party strength, however, may also be linked to overall higher levels of spending due to the high levels of cash transfer benefits provided (Huber and Stephens 2001).<sup>14</sup> It is important to note that the

12. Given that women form a larger portion of the elderly population, a related measure of the proportion of elderly women in the population was tested but found to add no additional explanatory power; thus, the standard measure of percent elderly (men and women) is used.

13. Political parties are coded into party families following the method employed in the Comparative Welfare States data set (CWS), and work by Francis Castles and Peter Mair (1984) and Matthew Gabel and John Huber (2000). Also following the CWS data set, the political variables for party cabinet control are coded as 1 for each year that these parties were in government alone; and as a percentage of overall control in cases of coalition governments. Further, data provided by CWS were supplemented and updated with independent data collection from nation-specific sources, such as from national parliamentary library online archives.

14. For all OLS-PCSE models, a five year cumulative measure was tested. Measures that cumulate left party strength over the entire time period of interest must rely on theoretical and empirical assumptions



effect of the configuration of party power may be declining in significance in these advanced welfare states. Current research suggests that the popularity of welfare state programs has made them difficult to dismantle, regardless of the party in power, since they have developed entrenched constituencies that do not necessarily correspond to political cleavages (Pierson 2001). Other research suggests that as these nations move into postmaterialist politics, new issues are emerging (e.g., identity, the environment) that may not correspond to traditional political parties (Kitschelt 1994). Finally, I also include a linear measure of *year*, an important control for trending in welfare state cross-sectional panel data and the tendency of spending to increase over time.

## ANALYTIC TECHNIQUES

The data have many advantages, including high-quality comparative measures over a long period of time collected from multiple nations. I rely on cross-sectional time-series data observed at the country level. In other words, each nation has one observation per year on any given measure. Results indicate significant relationships, but it would be an ecological fallacy to assume that significant relationships can accurately describe the historical and comparative trajectory of any one nation.

I analyze the data with two methods. First, to address issues of heteroskedastic and autocorrelated errors, I use Prais-Winsten regressions with panel-corrected standard errors and an AR1 parameter that is constant across countries (hereafter referred to as OLS-PCSE) (Beck and Katz 1995).<sup>15</sup> This technique has the advantage of explaining variation both between and within countries, taking advantage of the large

regarding the long-term effects of historical levels of representation that are difficult to validate across countries, over time, or in comparison to other influences. Theoretically, it is difficult to assume that societal-level mechanisms of welfare spending change depend on cumulative party power effects, while other measures, such as unemployment rates, are not cumulative in their impact. Empirically, the large size of one cumulative measure in an overall modest sample is generally found to suppress other effects in the model, even when it is not significant itself. Given the risk of unduly weighting or inaccurately measuring the effect of a single factor, a more parsimonious model of contemporaneous measures is preferred.

15. These models were also tested by including a five-year lagged measure of the dependent variable as a right-hand side variable, dropping theoretically influential cases (e.g., the United States, Germany, and Sweden), and testing lagged gender measures (by 1 and five years), respectively. Differences were minor and are noted in the text that follows.

amount of variation that exists between the nations (as seen in Appendix A). Across the different dependent variables, between-nation variation ranges from 68% to 93% (83% on average). Theoretically, insights that characterize differences in spending *among* nations are as important as processes *within* nations.

Some might argue, however, that concerns over omitted variable bias and causality within nations preclude the use of OLS-PCSE or similar models and, rather, require fixed-effects (FE) models that limit the variation explained to that within nations (Halaby 2004). Within-nation variation tends to be quite low, ranging from 7% (health cash spending) to 32% (health services spending), with an average of 17%. Beyond this, there are a number of problems with a fixed-effects approach (Nelson and Stephens 2008). More specifically, it eliminates variation in the dependent variable that is due to time-invariant factors such as constitutional structures, greatly reduces the coefficients of factors that vary mainly between countries, eliminates any differences in the dependent variable due to differences at  $t_1$  in the time series, and “*completely absorb[s]* differences in the level of the independent variables across the units” (Plümper, Troeger, and Manow 2005, pg. 330–334). A partial solution to the problem of estimating time-invariant measures has been offered by Thomas Plümper and Vera Troeger (2007), who developed a three-stage procedure called a “fixed effects vector decomposition” (FEVD) model. The first stage obtains unit effects through a standard fixed-effects model. The second stage separates the unit effects into parts explained by time invariant variables (in this case, constitutional structure) and an error term. Finally, the third stage reestimates the first stage by a pooled ordinary least squares approach that includes time-invariant variables and the error term from stage 2, accounting for the unexplained part of the unit effects (p. 124). Given the theoretical importance of constitutional structure for models of welfare spending, I use FEVD models, rather than the standard FE models. Importantly, while the FEVD approach allows the inclusion of time-invariant variables, the small amount of variation to be explained within nations over time is problematic, and results should be interpreted cautiously and retested when a longer time series becomes available. While OLS models with panel-corrected standard errors (PCSE) models explain both between and within variation, given the far greater proportion of the between variation, I refer to results from these models as mainly explaining differences between or among nations.

## RESULTS

### Total, Cash Transfer and Social Services Spending

I first compare spending across measures of total, cash transfer, and social services spending (see Table 3). For total spending, in both PCSE and FEVD models, higher percentages of women in the legislature are linked to more spending, and higher marriage rates are linked to less spending. Since marriage rates are generally declining, this is interpreted as boosting spending both within and across countries. The approaches differ in the effect of women's employment. In other words, nations with more women employed tend to spend more than other nations, but *within* a given nation, more women employed does not lead to more spending. The finding becomes clearer when spending is disaggregated.

The patterns found for marriage rates and women in legislature largely remain consistent for both cash and services spending. More women in the labor force does not equate with more cash benefit spending, and, on average, within a given nation, increases in employed women lead to less spending on cash benefits. Both within and across nations, however, women's employment is significantly positively linked to greater spending on services.

Established measures largely behave as expected across all three measures of spending. The percent elderly in the population and unemployment rates positively influence spending. Neither left nor right party strength measures, however, are significant. While finding no effect of left party strength may seem odd, recent research often mirrors this result, which may typify spending patterns among established post-golden age welfare states (Bolzendahl and Brooks 2007; Brooks and Manza 2007; Pierson 2001).<sup>16</sup> Notably, a five-year cumulative left party strength measure indicates a significant positive effect on services, but not cash benefits or total social spending. Finding a positive relationship between religious party strength and spending conforms to previous research (Huber and Stephens 2001). Finally, nations whose constitutional structures are characterized by more veto points tend to have lower welfare state spending (Hicks and Misra 1993).

16. Along these lines, research suggests that the initial goals forwarded by left parties that led to increased social welfare spending have been assimilated by broader coalitions of citizens within states and among political parties (Brooks and Manza 2007; Kitschelt 1994; Pierson 2001). Thus, left parties may have become less distinctive contemporary influences on absolute spending levels, per se.

Table 3. OLS-PCSE and FEVD models of total, cash transfer and social services spending in 12 industrialized democracies, 1980–1999

	<i>Total Social Spending</i>		<i>Cash Transfer Spending</i>		<i>Services Spending</i>	
	<i>PCSE<sup>a</sup></i>	<i>FEVD<sup>b</sup></i>	<i>PCSE</i>	<i>FEVD</i>	<i>PCSE</i>	<i>FEVD</i>
Gendered influences						
Women in labor force <sub><i>t-1</i></sub>	.07* (2.17)	-.05* (-2.43)	-.02 (-.85)	-.09** (-5.99)	.11** (7.29)	.07** (8.41)
Marriage rate	-.15* (-2.00)	-.27* (-2.36)	-.04 (-.76)	-.16+ (-1.84)	-.09+ (-1.83)	-.10* (-2.17)
Women in legislature	.13** (4.63)	.08** (4.74)	.06* (2.28)	.03* (1.97)	.08** (6.81)	.02** (3.54)
Established influences						
Year	.24* (2.50)	.24** (5.27)	.26** (3.29)	.28** (7.86)	-.02 (-.62)	-.09** (-5.62)
Unemployment	.34** (4.69)	.42** (8.27)	.17** (3.16)	.19** (4.70)	.08* (2.36)	.21** (1.73)
Per capita GDP	-.61** (-4.02)	-.24** (-2.78)	-.58** (-4.98)	-.39** (-5.78)	-.08 (-1.18)	.30** (9.28)
Percent elderly	.81** (5.51)	.56** (6.97)	.39** (3.54)	.29** (4.67)	.41** (6.28)	.26** (8.51)
Left party	<.01 (.02)	<.01 (.09)	>-.01 (-.02)	<.01 (.64)	<.01 (1.01)	>-.01 (-.89)
Religious party	.03** (3.00)	.03** (3.74)	.01* (2.45)	.02* (2.59)	.01** (3.13)	.01** (3.63)
Right party	>-.01 (-.93)	<.01 (.56)	>-.01 (-.89)	.01 (1.54)	>-.01 (-.04)	>-.01 (-1.62)
Constitutional structure	-.45* (-2.06)	-1.33** (-11.55)	-.19 (-.86)	-.68** (-7.63)	<.01 (.04)	-.65** (-13.06)
Residuals						
Constant	13.51 (3.34)	1.00 (22.22)	15.23 (4.46)	1.00 (19.98)	-3.75 (-2.27)	1.00 (24.46)
N	221	221	221	221	221	221
R-squared	.83	.95	.71	.91	.81	.97

Note: *t*-statistics in parentheses; +*p* < .10; \**p* < .05; \*\**p* < .01; two-tailed tests; in cases where coefficient size is between .01 and -.01, this has been denoted with a < or > sign.

<sup>a</sup>Models are corrected for first-order autocorrelation and employ panel-corrected standard errors.

<sup>b</sup>Fixed-effects vector decomposition model with a three-stage estimation allowing inclusion of time-invariant variables (constitutional structure).

## Family Spending

Table 4 presents the results for total cash benefit and social services spending in the family domain. Total family spending is obtained by adding cash and services spending, and is used to illustrate the diverse effects of influences across spending measures. In other words, this demonstrates how the effects found for total spending can be driven by one aspect of spending or obscure additional relevant findings.

Marriage rates are most weakly associated with family spending, but behave as expected when significant. Namely, across nations (PCSE) they are linked to less family spending overall and in regard to family services. They have little effect within a given nation. Women's presence in national legislatures is nearly always positively linked to spending, both within and across nations, except in regard to family services spending within a given nation. The contrary pattern for women's labor force involvement continues, such that women's employment is positively linked to total and services spending when one nation is compared to another (PCSE). On average, within a given nation, women's employment is negatively related to spending.

## Health Care Spending

The results for all models of health care spending are presented in Table 5. The percent of women in the labor force positively relates to total health spending and services spending in both PCSE and FEVD models. On average, however, within a nation, women's employment is negatively related to cash spending. When significant, marriage rates are negatively related to spending as expected. Nations with the highest percentage of women in legislature seem to spend more on health care overall and through cash transfers. Yet, on average, within a given nation, women's presence in the legislature is linked to lower spending.

## Old Age Spending

Table 6 presents models of old age spending. Nations with higher percentages of women in the labor force spend more on old age services and less on cash benefits than other nations. Similarly, nations with high levels of women in legislature also spend more on services. Within a given nation, women's labor force participation is linked to less spending

Table 4. OLS-PCSE and FEVD models of spending on family programs in 12 industrialized democracies, 1980–1999

	Total Family Spending		Family Cash Transfers		Family Services	
	PCSE <sup>a</sup>	FEVD <sup>b</sup>	PCSE	FEVD	PCSE	FEVD
Gendered influences						
Women in labor force <sub>t-1</sub>	.03** (5.03)	-.05** (-6.43)	.01 (1.17)	-.04** (-7.87)	.03** (5.84)	-.01** (-2.94)
Marriage rate	-.04* (-1.98)	.01 (.21)	-.02 (-.77)	-.01 (-.28)	-.02** (-2.90)	.01 (1.05)
Women in legislature	.02** (3.31)	.07** (13.80)	.01+ (1.79)	.07** (14.15)	.01** (3.46)	<.01 (.85)
Established influences						
Year	.03** (2.66)	-.04** (-3.85)	.04** (3.19)	-.03** (-3.76)	-.01+ (-1.71)	-.01* (-2.01)
Unemployment	>-.01 (-.03)	.05** (3.81)	-.01 (-.55)	.04** (4.51)	<.01 (.63)	.01 (1.27)
Per capita GDP	-.12** (-4.18)	.08** (3.32)	-.13** (-3.91)	.05* (2.56)	>-.01 (-.13)	.04** (3.80)
Percent elderly	.08** (4.71)	.14** (7.18)	.02 (.66)	<.01 (.29)	.07** (4.63)	.13** (13.60)
Left party	>-.01 (-.49)	>-.01 (-.20)	>-.01 (-.63)	<.01 (.66)	<.01 (.82)	>-.01 (-1.01)
Religious party	<.01 (.15)	<.01* (2.11)	>-.01 (-.42)	<.01** (2.65)	<.01 (1.09)	<.01 (.49)
Right party	>-.01 (-1.13)	>-.01 (-.74)	>-.01 (-.44)	<.01 (.14)	>-.01 (-.73)	>-.01 (-1.28)
Constitutional structure	-.05 (-1.32)	-.17** (-5.78)	-.01 (-.20)	-.06* (-2.59)	-.03 (-1.10)	-.13** (-8.47)
Residuals						
Constant	1.05 (1.87)	1.00 (16.99)	2.85 (4.61)	1.00 (18.80)	-1.75 (-4.84)	1.00 (19.32)
N	213	213	221	221	213	213
R-squared	.59	.91	.45	.84	.48	.94

Note: *t*-statistics in parentheses; +*p* < .10; \**p* < .05; \*\**p* < .01; two-tailed tests; in cases where coefficient size is between .01 and -.01, this has been denoted with a < or > sign.

<sup>a</sup>Models are corrected for first-order autocorrelation and employ panel-corrected standard errors.

<sup>b</sup>Fixed-effects vector decomposition model with a three-stage estimation allowing inclusion of time-invariant variables (constitutional structure).

Table 5. OLS-PCSE and FEVD models of spending on health care programs in 12 industrialized democracies, 1980–1999

	<i>Total Health Spending</i>		<i>Health Cash Transfers</i>		<i>Health Services</i>	
	<i>PCSE<sup>a</sup></i>	<i>FEVD<sup>b</sup></i>	<i>PCSE</i>	<i>FEVD</i>	<i>PCSE</i>	<i>FEVD</i>
<i>Gendered influences</i>						
Women in labor force <sub><i>t-1</i></sub>	.03 + (1.74)	.05** (4.64)	-.01 (-.56)	-.03** (-5.05)	.04** (5.37)	.07** (13.68)
Marriage rate	-.04 (-1.28)	-.23** (-4.31)	<.01 (.02)	-.05 (-1.61)	-.06** (-2.69)	-.18** (-4.97)
Women in legislature	.06** (4.67)	-.03** (-3.32)	.04** (4.34)	-.01 + (-1.83)	.01 (.81)	-.02** (-4.74)
<i>Established influences</i>						
Year	-.02 (-.66)	-.09** (-4.58)	-.03 (-.96)	.01 (.92)	<.01 (.08)	-.10** (-9.04)
Unemployment	.01 (.41)	.05 + (1.89)	>-.01 (-.27)	-.02 (-1.23)	.03 (1.28)	.06** (4.73)
Per capita GDP	-.05 (-.86)	.18** (4.46)	-.01 (-.23)	-.01 (-.59)	-.04 (-.97)	.19** (8.47)
Percent elderly	.15* (2.42)	.43** (1.59)	.01 (.33)	.17** (7.36)	.15** (3.86)	.25** (11.51)
Left party	<.01 (1.41)	>-.01 (-1.48)	<.01 (1.40)	<.01 (.80)	<.01 (.24)	>-.01** (-3.45)
Religious party	.01** (3.90)	.01** (3.59)	.01** (2.63)	.01** (4.84)	.01** (3.27)	<.01 (1.06)
Right party	>-.01 (-.87)	-.01** (-2.76)	>-.01 (-.59)	>-.01 (-.52)	>-.01 (-1.08)	>-.01** (-4.34)
Constitutional structure	-.29** (-2.82)	-.55** (-1.28)	-.39** (-5.22)	-.48** (-14.56)	.07 (1.29)	-.07* (-2.37)
Residuals		1.00 (18.98)		1.00 (27.74)		1.00 (15.81)
Constant	5.42 (3.14)	.15 (.15)	3.09 (2.26)	3.65 (6.33)	2.05 (2.48)	-3.49 (-5.77)
N	221	221	221	221	221	221
R-squared	.81	.90	.53	.94	.84	.85

Note: *t*-statistics in parentheses; + *p* < .10; \* *p* < .05; \*\* *p* < .01; two-tailed tests; in cases where coefficient size is between .01 and -.01, this has been denoted with a < or > sign.

<sup>a</sup>Models are corrected for first-order autocorrelation and employ panel-corrected standard errors.

<sup>b</sup>Fixed-effects vector decomposition model with a three-stage estimation allowing inclusion of time-invariant variables (constitutional structure).

Table 6. OLS-PCSE and FEVD models of spending on old age programs in 12 industrialized democracies, 1980–1999

	<i>Total Old Age Spending</i>				<i>Old Age Cash Transfers</i>				<i>Old Age Services</i>			
	<i>PCSE<sup>a</sup></i>		<i>FEVD<sup>b</sup></i>		<i>PCSE</i>		<i>FEVD</i>		<i>PCSE</i>		<i>FEVD</i>	
Gendered influences												
Women in labor force <sub>t-1</sub>	-.02	(-1.42)	-.08**	(-7.88)	-.05**	(-2.70)	-.06**	(-6.22)	.03**	(5.77)	-.01	(-1.57)
Marriage rate	-.04	(-1.08)	-.14*	(-2.38)	-.01	(-.42)	-.08	(-1.45)	-.02	(-.59)	-.02	(-1.01)
Women in legislature	.01	(.44)	.02*	(2.05)	-.02	(-.92)	-.03**	(-4.33)	.04**	(7.37)	.04**	(14.58)
Established influences												
Year	.22**	(4.57)	.39**	(14.07)	.27**	(5.47)	.33**	(15.04)	-.04**	(-3.11)	.01	(1.16)
Unemployment	.03	(.77)	-.09**	(-3.21)	-.03	(-.89)	-.10**	(-4.26)	.04**	(3.46)	.07**	(7.67)
Per capita GDP	-.34**	(-4.49)	-.57**	(-11.16)	-.44**	(-5.78)	-.46**	(-11.24)	.06*	(2.33)	.03 +	(1.82)
Percent elderly	.51**	(5.07)	.14*	(2.57)	.38**	(4.31)	.21**	(4.89)	.06*	(1.97)	-.16**	(-8.71)
Left party	> -.01	(-.97)	<.01	(.60)	> -.01	(-.43)	<.01	(.41)	<.01	(1.53)	<.01**	(2.90)
Religious party	<.01 +	(1.86)	<.01	(.48)	<.01 +	(1.78)	> -.01	(-.08)	<.01*	(2.06)	<.01*	(2.13)
Right party	> -.01 +	(-1.76)	<.01	(1.61)	> -.01	(-.98)	<.01*	(2.26)	<.01	(1.37)	<.01*	(2.32)
Constitutional structure	.12	(.83)	.06	(1.03)	.28 +	(1.70)	.11*	(2.10)	-.12**	(-3.70)	-.23**	(-11.06)
Residuals												
Constant	6.43	(3.36)	19.48	(14.27)	1.54	(5.05)	15.02	(14.60)	-3.14	(-5.03)	2.13	(4.34)
N	202		202		221		221		202		202	
R-squared	.71		.92		.65		.92		.67		.95	

Note: *t*-statistics in parentheses; +*p* < .10; \**p* < .05; \*\**p* < .01; two-tailed tests; in cases where coefficient size is between .01 and -.01, this has been denoted with a < or > sign.

<sup>a</sup>Models are corrected for first-order autocorrelation and employ panel-corrected standard errors.

<sup>b</sup>Fixed-effects vector decomposition model with a three-stage estimation allowing inclusion of time-invariant variables (constitutional structure).



on old age cash benefits. Higher marriage rates are negatively related to total old age spending within, but not across, nations. Finally, within nations, on average, the percentage of women in the legislature drives overall old age spending, but this positive effect is limited to services since the measure is negatively related to cash transfers. Thus, there is some further evidence that women's equality pushes the expansion of services but the contraction of cash transfers.

## SUMMARY AND DISCUSSION OF EFFECTS

Given that the results cover 12 dependent variables and 24 models, Table 7 presents a summary. In most cases, results from PCSE and FEVD approaches are similar. PCSE results are stronger and more consistent, likely reflecting the greater amount of variation to explain. Where the two models differ, the summary indicates that significant influences between the countries are different from influences within the countries. This is most clearly the case when the influence of women's labor force participation is examined.

In regard to women's economic participation, I hypothesized that gains in women's employment would be linked to more spending overall, but specifically to services and not to cash benefits. Indeed, in terms of total spending measures (overall and domain specific), I find that the nations spending the most have higher percentages of employed women, but *within* a given nation, the effect is nearly always negative. A further breakdown of spending shows this negative effect to be largely in regard to cash benefits. But women's employment is nearly always linked to more services spending, as expected. This contrary pattern found in FEVD models may be due to several mechanisms that work together and/or variously among nations.

First, women's employment provides fewer opportunities for cash benefits because the work is more often part time and marginal (Gornick and Jacobs 1996; Gornick, Meyers and Ross 1998; O'Connor, Orloff and Shaver 1999; Rosenfeld and Birkelund 1995; Stier, Lewin-Epstein and Braun 2001). Moreover, changes in workplace organization place more burdens on the worker (e.g., Van Echtelt et al. 2009). Second, increases in employed women may not place the same demands on employment benefits that men's employment did in earlier eras, contrary to implicit and explicit discrimination against women by employers who see them as less stable

Table 7. Summary of results from PCSE and FEVD models of social spending

		<i>Gendered Influences</i>		
		<i>Women in Labor Force</i>	<i>Marriage Rate</i>	<i>Women in Legislature</i>
Total spending	PCSE	+	–	+
	FEVD	–	–	+
Total cash benefits	PCSE	n.s.	n.s.	+
	FEVD	–	–	+
Total social service	PCSE	+	–	+
	FEVD	+	–	+
Family total spending	PCSE	+	–	+
	FEVD	–	n.s.	+
Family cash benefits	PCSE	n.s.	n.s.	+
	FEVD	–	n.s.	+
Family services	PCSE	+	–	+
	FEVD	–	n.s.	n.s.
Health total spending	PCSE	+	n.s.	+
	FEVD	+	–	–
Health cash benefits	PCSE	n.s.	n.s.	+
	FEVD	–	n.s.	–
Health services	PCSE	+	–	n.s.
	FEVD	+	–	–
Old age total spending	PCSE	n.s.	n.s.	n.s.
	FEVD	–	–	+
Old age cash benefits	PCSE	–	n.s.	n.s.
	FEVD	–	n.s.	–
Old age services	PCSE	+	n.s.	+
	FEVD	n.s.	n.s.	+

employees (Rosenfeld, Van Buren and Kalleberg 1998; Sorensen 1990). Third, the entry of women into the labor force may outpace the ability of a nation to fund needed policy. Finally, the cutbacks that have been made regarding the welfare state have been a tightening of eligibility for employment benefits (e.g., raising the age of retirement or lengthening working time before being eligible for unemployment compensation) and a reduction in replacement ratios (e.g., sickness benefits cut from 90% to 80% of wages). This means that women's more marginal employment is even less likely to be covered over time, and thus women's increased labor force participation may exert no effect due to overall austerity (Anderson 2001; Esping-Andersen 1996; Pierson 2001).

I expected traditional family formation to be negatively associated with services spending. My proxy measure, marriage rates, when significant, was always negatively linked to services spending. In general, nations with higher marriage rates spend less than other nations on a number of spending measures. Within a given nation, higher marriage rates are linked to lower overall spending. Since marriage rates are declining, this means that nations are experiencing pressures to spend more on social policy. Marriage rates, however, were not positively linked to cash benefits as expected, suggesting little evidence that cash benefits were used in this period to directly enhance traditional family formation, and may also reflect the fact that “marriage rates” are a fairly oblique measure of traditional family.

Finally, prior research suggested that women’s presence in national legislatures might be linked to more spending overall, or just toward spending framed as being in “women’s interests,” namely, services. The evidence is mixed. Female politicians support all aspects of social spending. And nations that spend more on health care have more women in legislature than do other nations. But within a nation, women’s political presence is negatively linked to spending. Women in legislature seem to boost spending on old age services and not cash transfers. Given that women are more often the caregivers for elderly parents, this pattern may suggest that women in legislature are advocating for increased resources to benefit women in particular.

## CONCLUSION

Not all social spending is equal. Cash transfer programs are typically employment-based privileges. Social services, while not a panacea for all social ills, are directly provided to citizens as rights. Substantively, previous research has also demonstrated the importance of examining a variety of programmatic areas (e.g., Gauthier 1998; Huber and Stephens 2000; Montanari 2000). Large and often increasing amounts are being spent in each area, and by approaching each domain separately, we arrive at a better overall understanding of cross-national approaches to state-mediated inequality — economically, socially, and politically. Furthermore, more recent work has theorized gender processes and developed hypotheses, arguing that women can affect welfare state development by shaping policy discourses, mobilizing in various

women's organizations, and gaining power in economic and political spheres (e.g., Berkovitch 1999; Hobson 1993; Huber and Stephens 2001; Sainsbury 1994). Few hypotheses, however, have been evaluated using quantitative data; thus, these results add to this body of research by testing measures of changing gender equality.

Overall, the results confirm the utility of a disaggregated approach that includes cash versus services provision measures, as well as special attention to substantive domains. Comparing models of total spending to those of disaggregated cash and services spending across all models reveals that established welfare state influences have larger explanatory power when it comes to these traditional employment-insurance programs upon which initial models were developed (Amenta 1993; Hicks and Misra 1993; Wilensky 1975). Gender-relevant influences matter more strongly for services spending, and may even be pressures for states to spend more on services and less on cash transfers. The results cannot fully disentangle the mechanisms and policy feedbacks inherent to this process, but they do help fill in a more nuanced picture of the sources of social spending change and variation. The two modeling approaches used provide different insights into the relationship between gender and spending. Patterns among nations (PCSE) do not always mirror patterns within nations (FEVD). The use of fixed-effects variance decomposition (FEVD) models is relatively new to the field, and in this data set the amount of variation to be explained in such models is quite low, together suggesting that results be interpreted cautiously. Cases of difference between these two modeling approaches, however, suggest interesting possibilities for parsing out influences that matter within versus among nations over time.

An advantage of this analysis is the recognition that gender is not a one-dimensional influence. Depending on whether attention is given to family, economic, or political aspects, the influence of gender across domains varies. Women's labor force participation is a large influence on overall social services provision, even larger than women in legislature. But it is unrelated to cash transfer spending among nations and negatively within nations. Higher marriage rates are negatively related to overall spending levels, and consistently so in fixed-effects models, suggesting that as marriage rates decline, nations spend more on cash transfers and services. The overall effect was weak, yet it may be that the movement away from traditional family structure is only beginning to take effect. The significant effect of women's political resources suggests that women's political power matters in general, but also varies across domains. Such

results may provide insights into the mechanisms by which women in legislature influence policy outcomes. Because the impact of women in legislature is not limited to family or services provision, perhaps female legislators are more interested in the “social project” as a whole than in “women’s interests” more narrowly defined.

The results suggest patterns that, on average, are found among advanced Western welfare states in this period, though these should not be taken as describing any one country’s spending or development. We can speculate about how these patterns fit with our current understanding of variation among states in the sample. For example, the most generous and comprehensive welfare states (i.e., social democracies such as Sweden and Norway) tend to be most equal in measures of women’s economic and political power and family autonomy. Where women’s equality is more uneven, however, so is the development of spending programs. Nations such as the United States and Canada have high levels of women’s employment, but they lag in other areas. Italy and France place a greater emphasis on traditional family and particularly on women’s family roles, but they have seen their citizens eschew marriage and fertility. Without strong gains in women’s employment and political presence, there may have been fewer pressures from women to develop the programs needed to balance work and family.

Though compelling, it should be noted that these analyses are only the beginning for research at the intersection of gender and spending. This article has examined changes across 12 nations and 20 years, but social policy change has a much wider and longer trajectory. As data continue to be collected and time passes, we must assess whether the findings hold for other nations, including those in Eastern Europe and Latin America. Future research would benefit especially from more nuanced measures of gender relations and equality. Measures like marriage rates may be a proxy for traditional family formation, but they tell us little about behaviors within families or trends toward cohabitation and single parenthood. With high levels of women in the labor force, better data must be collected that distinguish among qualitative aspects of employment, including part-time, industry-specific, and levels of authority. Political power is also difficult to account for fully, both in terms of informal participation by citizens and in how political parties respond to pressures within mature social provision systems. It is encouraging that new, more inclusive indicators of welfare state generosity are being developed (Castles 2002; Korpi and Palme 2008; Scruggs and Allan 2006). And while these indicators focus on only a

subset of programs, and/or utilize aggregations, the potential for new insights in this area may productively tie together several strands of research.

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## Appendix A

Country-specific means, change in values between 1980 and 1998, and change as a percent of mean Value

	<i>AUL</i>	<i>CAN</i>	<i>DEN</i>	<i>FIN</i>	<i>FRA</i>	<i>FRG</i>	<i>ITA</i>	<i>NET</i>	<i>NOR</i>	<i>SWE</i>	<i>UKM</i>	<i>USA</i>
Total spending												
Mean	14.67	17.64	29.9	25.81	26.29	23.19	22.70	27.36	25.67	31.70	22.47	14.02
Δ 80–98	6.49	4.77	.75	8.03	7.68	7.01	6.65	−3.36	8.42	1.98	6.51	1.46
Mean stdzed. %	44%	27%	3%	31%	29%	30%	29%	−12%	33%	6%	29%	10%
Cash spending												
Mean	7.21	7.16	14.88	14.26	14.31	12.99	13.85	17.02	12.58	14.73	12.28	7.00
Δ 80–98	3.1	2.28	−1.28	5.32	3.87	3.05	5.50	−4.28	3.48	1.26	5.77	−.45
Mean stdzed. %	43%	32%	−9%	37%	27%	23%	40%	−25%	28%	9%	47%	−6%
Service spending												
Mean	6.25	6.93	13.30	9.53	8.66	8.66	6.20	7.98	11.58	14.2	6.94	5.45
Δ 80–98	3.05	1.37	.77	1.93	3.75	3.87	.70	1.71	5.04	.37	.68	2.08
Mean stdzed. %	49%	20%	6%	20%	43%	45%	11%	21%	44%	3%	10%	38%
Family cash												
Mean	1.51	.66	1.32	1.85	2.11	1.38	.71	1.36	1.99	1.95	1.80	.30
Δ 80–98	1.25	.11	.46	.85	−.72	.33	−.41	−1.19	.98	−.12	−.05	−.24
Mean stdzed. %	83%	17%	35%	46%	−34%	24%	−58%	−88%	49%	−6%	−3%	−80%
Family service												
Mean	.23	.10	1.93	1.26	.53	.57	.23	.43	1.08	2.18	.46	.28
Δ 80–98	.36	−.11	.47	.63	.95	.36	.18	−.13	.82	−.56	−.03	−.04
Mean stdzed. %	157%	−110%	24%	50%	179%	63%	78%	−30%	76%	−26%	−7%	−14%
Health cash												
Mean	1.14	.53	2.74	3.62	1.58	1.27	1.67	5.98	4.00	3.93	1.91	1.00
Δ 80–98	.28	.14	−1.28	.28	−.21	.04	.34	−3.69	.94	−.99	1.9	.06
Mean stdzed. %	25%	26%	−47%	8%	−13%	3%	20%	−62%	24%	−25%	99%	6%

*Continued*

Appendix A. Continued

	<i>AUL</i>	<i>CAN</i>	<i>DEN</i>	<i>FIN</i>	<i>FRA</i>	<i>FRG</i>	<i>ITA</i>	<i>NET</i>	<i>NOR</i>	<i>SWE</i>	<i>UKM</i>	<i>USA</i>
Health service												
Mean	5.22	6.38	7.29	5.81	6.71	6.79	5.73	5.91	6.58	7.63	5.29	4.92
Δ 80–98	1.65	1.26	–1.21	.25	1.47	1.78	–.14	.42	1.12	–1.81	.70	2.19
Mean stdzed. %	32%	20%	–17%	4%	22%	26%	–2%	7%	17%	–24%	13%	45%
Old age cash												
Mean	3.33	4.32	6.33	6.67	9.18	9.22	1.46	6.72	5.65	7.47	7.44	5.22
Δ 80–98	1.12	2.28	1.03	2.29	3.00	1.81	5.46	–.30	1.43	.82	4.66	.17
Mean stdzed. %	34%	53%	16%	34%	33%	20%	374%	–4%	25%	11%	63%	3%
Old age service												
Mean	.45	– <sup>a</sup>	2.84	1.23	.67	.45	.21	.63	3.04	2.4	.61	.06
Δ 80–98	.63	– <sup>a</sup>	.27	.64	.04	.46	–.02	.76	2.2	1.99	.27	–.08
Mean stdzed. %	140%	– <sup>a</sup>	10%	52%	6%	102%	–10%	121%	72%	83%	44%	–133%

<sup>a</sup>Canada is missing values for this indicator.