

Explaining Female Legislative Representation: Welfare to Work?

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Abstract

This paper uses statistical and case study analysis to examine the reasons for cross-national variation in female political representation. We confirm the findings in the existing literature that women are more likely to be elected to legislative office under high district magnitude rules, and as female labor force participation increases, and supply an argument for how these political and labor market institutions matter. High levels of female public sector employment are responsible for strong female legislative representation by not only countervailing the negative effects of welfare state policies on female labor market participation, but in addition by creating a highly motivated pool of voters with a stake in policies that allow them to continue to balance family and career.

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1. Introduction

The under-representation of women in the world's legislatures has become one of the core questions in the study of elections and representative democracy. Women hold fewer than fifty percent of seats everywhere, but there is wide variation over time and place. Even limiting the focus to advanced industrial democracies and the present day, the share of female legislators ranges from 7.1% in Japan to 14.3% in the U.S. to 45.3% (near parity) in Sweden. And whereas Iceland shot up from 1.9% in 1946 to 34.9% in 1999, France's increase was only from 5.6% in 1945 to 10.9% in 1999. The female share of Belgium's MPs increased only from 1.5% in 1946 to 12.0% by 1995, but then jumped to 23.3% in the 1999 election, a much more sudden rise than in most countries.

A great volume of work has been devoted to explaining this variation, and consensus seems to exist on some of the determining factors. Various scholars have shown that among the favorable conditions for women to enter parliament are proportional representations (PR) electoral rules, high district magnitude, high levels of female participation in the paid workforce, the seat share of left-of-center political parties, and such cultural attributes as Protestantism, post-materialist values, and, somewhat more problematically, a general societal egalitarianism.

Some level of consensus notwithstanding, the mechanisms that link women's seat shares to the supposed explanatory factors are still poorly understood. While we have a better idea than twenty or thirty years ago as to what conditions *predict* women's entry into parliament, we are less sure as to explanations. Why exactly does PR help? There are competing theories. Are open lists or closed lists better for women? Why does female employment lead to political candidacy, and ultimately, incumbency? How can we discuss egalitarianism without succumbing to tautology or drowning in ambiguities of measurement and timing? More concretely, why do the Scandinavian parliaments (Sweden, Norway, Denmark, and Finland) appear to be high-end outliers even when all systematic influences are accounted for? Naturally, scholars have offered theories and speculations to explicate the links between causes and effects, but to date, there is less consensus about the mechanisms than about correlates.

In this paper, we do not pretend to answer all of these questions, nor do we aim to refute the existing findings as to institutional or cultural factors. Instead, we offer a theory to link determinants to outcomes, and an explanation of some of the hitherto unexplained variance in the shares of women in parliament (WIP), especially in Scandinavia. Specifically, we find that higher female representation in Scandinavia does indeed have its roots in a larger female labor force participation starting in the 1960s, the rapid expansion of jobs in the *public sector* has an impact beyond the increase of women in the workforce more generally

Here is a sketch of the logic: The costs to private sector employers of hiring women are higher in countries strong with union bargaining and wage compression¹ because career interruptions on account of child bearing and rearing rob companies of their investment in human capital (Mincer 1958; Pollachek 1975, 1978, 1981, 1985; Estevez-Abe 1999). In this labor market environment,

¹ Wage compression refers to narrowing the gap between lowest and highest wage earners through wage agreements that raise the minimum wage and lower wages at the upper end.

public service jobs where wages are at least partly independent of labor productivity, including costs of career interruption, tend to draw in disproportionately large numbers of women. Once in the labor market, women value the employment opportunities in the public sector, the socialization of family work that supported their income (i.e., the services that the expanding welfare state provided) and their greater freedom to balance work and career in typically “general skills” jobs (Iverson and Rosenbluth 2003), and so working women became ardent supporters of the welfare state, and a strong source of support for social democratic parties.

The problem for parties on the left wanting to capitalize on the female vote is partial incompatibility with the interests of their core voters, the predominantly male union membership. Unions might reasonably fear that extending union membership and benefits to women, who require flexibility and compensation for time spent with children, might lead employers to respond by reducing the average male wage and benefit package. We would expect countries with the largest public sectors to be best able to smooth over this possible incompatibility between male and female workers by absorbing women into public sector jobs. When working women make up a sufficiently large percentage of the voting public – i.e., when the public sector is big – we can expect parties to woo them with female legislators, other things equal.

Both female labor force participation and high district magnitude are important for female legislative representation, but only the Scandinavians have both. PR rules provide the high district magnitude that is most conducive to female representation, but PR also promotes labor markets that stunt female participation in the labor force (Iverson and Rosenbluth 2003). The Scandinavian solution, of spending and creating public sector jobs for women, cuts the Gordian Knot but has other consequences of its own. These other consequences of welfare spending include creating a gender gap in policy preferences – in Scandinavia and elsewhere. To signal their commitment to helping women in the workforce, parties on the left may increase the percentage of women on the party lists. In some cases, Scandinavia included, parties on the right then had to respond with lists of women of their own (as Matland 1998 notes in his study of the Norwegian case).²

The rest of the paper is organized as follows. In section two, we review the existing literature on female representation to identify its accomplishments and its remaining puzzles. Section three lays out our argument in greater detail, and section four puts it to a statistical test. Section five checks our logic by tracing the sequence of events in two countries, Sweden and Germany. Section six concludes.

2. Existing Explanations for Variation in Female Parliamentary Representation

So much interesting work exists on women and politics, and specifically on the question of women in parliament, that we cannot hope to review it all (see, e.g., Reynolds 1999; Norris 2004 for excellent summaries of past findings). Here, we intend only to highlight a few points of consensus and a few areas where more work is needed.

² And occasionally, as we show in the Swedish case study below, the rightist parties even act preemptively.

The first class of arguments concerns electoral rules. A number of scholars have noted that proportional representation systems seem to be more hospitable to female representation than district-based systems with low district magnitude (Rule 1981, 1987; Norris 1985, 1987, 2004; Matland 1998; Kenworthy and Malami 1999; Reynolds 1999; Salmond 2004). Dividing electoral systems in this way does provide substantially different averages: 25.6% for PR and high district magnitude systems against 18.7% for single member districts.³ This generalization holds true within countries that use different systems for different types of elections (e.g., upper versus lower houses of parliament) and across the two tiers in so-called mixed-member systems (as in the systems currently in use in Germany, Italy, Japan, and New Zealand).

But while PR-based systems consistently outpace plurality-based systems on average, there is still substantial unexplained variation among countries within each regime type, as well as change over time. Moreover, while the correlation between PR and women in parliament (WIP) seems robust, we know less about the underlying causal mechanism. The literature offers three (possibly complementary) explanations for the positive effect of PR on female parliamentary representation. The first is that voters are more willing to elect women when the stakes are lower – that is, seeing women listed along with men on a list does not make the decision to vote for a female such a stark one, whereas nominating a woman (or, indeed, a minority candidate) for a single seat in a winner-take-all system is risky because some percentage of the electorate is automatically alienated (Norris 1985, 1987, 2004; Matland 1998). There is probably something to this argument, though it cannot help us explain the variation we observe within each regime type (PR and plurality-based systems, respectively). More likely, the prospects for gender-balancing and the lower thresholds for election created by the higher district magnitudes typical of PR systems (and the higher the better), *allow* for greater female representation, but do not guarantee it.⁴

The second possible link between PR and WIP focuses on the viability of numerous small parties in large-magnitude (and hence low-threshold) systems. If one or more of those small parties make gender balance a political issue, and can credibly threaten to draw voters (especially female voters) away from larger parties, then those larger parties might be obliged to follow suit (Rule 1987). This is a variation on what Duverger terms the “blackmail potential” of small parties in multiparty systems. On the other hand, Matland (1993) argues that if thresholds are too low and too many small parties emerge, this may reduce WIP. His logic is that this causes “big” parties win to fewer seats (lower “party magnitudes”), and since most or all parties (even small ones) are led by men, that means fewer slots for women over all. Women, according to Matland, win more seats in parliament when there are fewer parties with longer lists, other things equal.

The third proposed link between PR and WIP, and one closer to our argument below, is the greater likelihood of producing left-of-center governments under PR (Iversen and Soskice 2004),

³ These averages are calculated as at 2001 for the 23 advanced industrialized democracies that are under the microscope in this study. Systems with a district magnitude greater than one, including all mixed systems, were counted in the PR category.

⁴ Note that this is similar to Cox’s reformulation of Duverger’s hypothesis about party system size (Cox 1997) – that PR allows for more parties than plurality (raises the feasible upper limit), but something else (e.g., ethnic diversity) has to drive the formation of those extra parties.

which in turn are more likely to favor the socialization of family work that many women voters care about. The desire of working women to be protected from the costs of career interruption is consistent with the left's preference for a large public sector and for at least partially removing the costs of child care and elderly care from the family unit. Leftish governments, aware of the popularity of their platform with working women, might signal this by nominating more females as candidates. We might therefore expect female representation to correspond with left legislative strength. The pairwise correlation between PR and leftism in parliament in our dataset is 0.38, with a p-value of zero, but we find many instances of left leaning legislatures, particularly but not exclusively in SMD countries, where female representation remains low. Since 1985, there have been parliaments in Greece, France, Spain, Portugal, Italy, Belgium Japan and the UK where over 32% of the seats leftists filled but women filled fewer than 10%. This suggests that there is something about PR systems beyond leftism that affects women's election to legislative office.

Electoral rules aside, a second set of arguments about WIP looks to the opportunities for women in the paid workforce, with the idea that higher levels of female labor force participation (FLFP) should lead naturally into higher numbers in parliament. Again, the underlying mechanism is underspecified, but one possibility might be that paid employment somehow prepares people for politics by fostering managerial skills and a broader world view than is available in the household (Vianello and Moore 2000). This is not a gender-based effect *per se*, but it would follow that the more women there are who develop the requisite skills and attitudes, the greater the pool of potential female politicians.⁵ This also cannot be a stand-alone explanation. Table 1 presents the broad electoral rules, and levels of female representation in the labor force and the legislature for 23 advanced industrialized countries. A country such as the U.S., with a relatively high percentage of women in managerial positions in the public sector, falls substantially behind Germany in female legislative participation despite the small number of German women in managerial positions (Anker 1998). So, again, while there might be something to the supply-side argument about FLFP, it is a partial explanation at best.

A third class of arguments – and this is probably the conventional wisdom – centers on the idea that cultural values vary across countries and within countries over time (Esping Andersen 1999; Inglehart and Norris 2003), and that countries with more female MPs are those that are simply more egalitarian than countries with fewer WIP. In this formulation, higher FLFP would be another effect of egalitarianism, not an independent cause of higher WIP. While we accept that social norms can pervade attitudes and shape voting behavior, we find it more useful to think about how values come to be accepted in the first place, and the conditions under which one set of values trumps another. Cultures are not static. While it is true, for example, that Scandinavian parliaments include more women than anywhere else in the world, WIP numbers in the 30-40 percent range are a relatively recent phenomenon – the increase began in the 1970s. So if culture is the key, we need to explain cultural change as well. Indeed, Bystydzienski (1994) tells us that after women's groups in Norway took advantage of somewhat flexible party lists to get more women elected in the mid 1970s, party leaders responded immediately by

⁵ We can eliminate the possibility high FLFP is merely an effect of PR systems because we know that PR systems are no more likely to promote FLFP than district based systems ($\rho = -0.025$, $p\text{-value} = 0.676$). We also know that countries with high percentages of working women fall at both the high and low ends of female political representation.

making those lists less flexible, in an effort to forestall a recurrence (Sainsbury 2004; Krook 2002; Caul 1997; Friedenvall 2003). This hardly seems an example of a cultural predisposition to gender equality. Even in to the 1980s, scholars were much less impressed with the actual indicators of gender equality in the Nordic countries than with the rhetoric surrounding it (e.g., Skard and Haavio-Mannila 1984). If Nordic politics are in fact more egalitarian as regards gender and politics, then this is something to be explained, not an exogenous determinant of WIP.⁶

As we have shown, the three main explanatory variables in the literature focus on institutions (the electoral rules), the “supply” of viable female candidates in the paid workforce, and cultural attitudes toward gender equality. We agree that all three of these explanations ring true at least in part, but theory seems to lag behind empirics for all three. We know that these variables are correlated with WIP, but we don’t necessary know why. Moreover, the first two admit of anomalies, such as low-magnitude-high WIP New Zealand, the high FLFP-low WIP United States, and the still-higher-WIP-than-expected Nordic cases, while the third – cultural – explanation suffers from severe measurement problems and the pervasive risk of tautology. How do we know a gender-egalitarian society other than by measuring outcomes such as WIP or FLFP, or attitudes toward such outcomes? This is not to say that culture does not matter, just that its independent effect is devilishly tricky to nail down.

The next section of this paper lays out our contribution to this explanation. We focus on the implications for WIP of the nature and extent of the welfare state. We find that the variations in welfare state size and employment patterns affect women very differently than they affect men, and that this creates first a change in gender roles in the economy, then a gender gap in political attitudes, and finally a change in the representation of women in parliaments. While culturalists might call the comprehensive welfare states of Scandinavia yet another result of deeply rooted egalitarianism, we see both basic economic motivations for welfare state expansion (labor shortages, for one) *and* sharp political disagreements over their ramifications for traditional gender roles. If Scandinavians are gender-egalitarian now, it is a recent phenomenon, and not a basic cultural predisposition. We suggest that gender egalitarianism is as much an effect of changes women have brought about in both the economy and politics as a cause of those changes.

3. The Key to Scandinavian Exceptionalism: The Welfare State as Provider and Employer

In this section, we argue that the reason Scandinavian parliaments include so many more women, and the key to explaining why other countries with similar electoral systems lag behind, is another Scandinavian claim to fame – the comprehensive welfare state. While others have referred to the welfare state as further evidence of egalitarianism in these countries, we focus

⁶ If people accept as common sense those ideas that seem societally stable and are reinforced by individual experience, it should be possible to see if political incentive structures under-gird certain types of behavior and perceptions. We leave it for others to determine how much of voting behavior is conscious and how much instead is reflexively norm-driven. Our point is rather that norms themselves can be in part a collective response to accumulated incentives, and this points to the importance of political factors creating those incentives. Culture, in other words, may be an important intervening variable, but we would like to know if politics has anything to do with how it got there.

here on the direct effect of the welfare state on women's employment, which creates both the motive and the opportunity for women to enter politics in large numbers. Doing so allows us to explain the changes over time within Scandinavia, and to explain female parliamentary representation in other advanced democracies without having to measure and compare relative levels of egalitarianism across time and place. If the origins of the Scandinavian "cradle-to-grave" welfare state, in contrast, say, to the more marginal "safety net" approaches in places such as the United States and Japan, are themselves attributable to cultural factors, so be it. But we hope to make the link to economy and politics more explicit in the remainder of this paper.

As Norris (1987) and others (Inglehart and Norris 2003, 2001, Wolfers 2001, Iversen and Rosenbluth 2004; Burgoon and Hiscox 2004) have shown, a gender voting gap has emerged in most industrialized countries, with women becoming a few percentage points more likely to vote on the left than men. This trend is all the more remarkable because as recently as the 1960s, a voting gap existed in the opposite direction: women were more likely to vote conservatively, on behalf of family and community values. The shift in female voting to the left tracks fairly closely the growth in female labor force participation, so it is important to explore variation in female labor force participation rates over time and across countries.

Exploring this variation cross nationally turns up an interesting pattern and shows that the welfare state can have a potentially dark side for women. In the weak welfare states such as the U.S. (sometimes known as Liberal Market Economies) the absence of wage protections has the effect of helping women get hired and promoted to managerial positions by spreading labor market mobility and career interruptions more evenly across the sexes. By making male workers more insecure, women have more opportunities to compete with men, resulting in relatively high female labor force participation and relatively low gender wage gaps.

In stronger welfare states, by contrast, although wage compression reduces the gender wage gap by raising the wage floor on service sector jobs occupied disproportionately by women (Blau and Kahn 1996), wage compression and other forms of worker protection also have unintended consequences detrimental to women. Employers who face legal obstacles to dismissing workers have an incentive to invest in the human capital of these workers. For employers who make the most productive use of labor in this way, career interruptions mean more costly human capital investments. They compensate by avoiding the hiring of people expected to leave their jobs permanently or temporarily – usually women. Economists call this "statistical discrimination" (Mincer 1958, 1966, 1978, 1985; Polachek 1978, 1981; Estevez-Abe 1999, 2002). In other words, the reason many women take these low paying service sector jobs in the first place is precisely because they have a harder time breaking into the more remunerative career tracks. Job protections for unionized (mostly male) workers result in fewer women in the workforce, a greater gender wage gap, and lower profile careers (Estevez-Abe 1999, Estevez-Abe, Iversen, and Soskice 1999, Iversen and Rosenbluth 2004).

This is where Scandinavian exceptionalism comes in. Although Scandinavian countries also have the specific skills economies that increase the cost of career interruption, they have made up for the private sector bias against women by absorbing a large percentage of women into public sector jobs. Governments with an unstinting commitment to a large public sector assuaged the concerns of formerly male dominated unions that including women into the union fold would not

dilute their benefits or security. As we detail in the case studies in Section 5, this represents a stark contrast with other European countries such as Germany.

Scandinavian welfare states are comprehensive and universal, guaranteed as a birthright. Esping-Anderson (1990, 1999) points to the de-linking of citizens' roles as workers from their economic privileges as citizens, and he notes that this "de-commodification" has gone furthest in Scandinavian countries. With health, housing, and education no longer dependent upon income, or even current employment status, workers are free to choose more leisure over more work, and to take extended leaves for family concerns.

Women have benefited even more than men from the "cradle-to-grave" support of the comprehensive welfare state, for two principal reasons. First, because the state has, in effect, taken over many of the functions left to the family in more traditional liberal economies, women, as the traditional primary care providers for children and the elderly, are able to leave the household in favor of paid employment in the formal sector.

Second, and just as importantly, the welfare state, in order to provide these health, education, and welfare services, has itself become a major employer. Insofar as most of the new jobs are welfare state jobs, women tend to enter the workforce through the public sector. As Table 2 shows for a sampling of OECD countries (constructed from data received from The Luxembourg Income Study and the Luxembourg Employment Study Database), the female share of the public sector is significantly higher than women's share of overall employment in all but two cases (Ireland and Luxembourg). And the difference is particularly striking for Sweden, where nearly 3 in 4 public sector employees are female, compared to just under half of overall employment.⁷

[Table 2 About Here]

The Scandinavian-style, comprehensive welfare state not only frees women from household labor by "socializing" formerly housewife-dominated services, it also creates jobs that are more likely filled by women. Kolberg (1991:140) shows that the net effect of Scandinavian public sector expansion in the 1970s and 1980s was not simply an increase in jobs for women, but that this increase, to some degree, came at the expense of jobs for men: while female employment rose by 14%, 11%, 33%, and 21% in Denmark, Finland, Norway, and Sweden, respectively, the concomitant changes in male employment were -8%, -4%, -1%, and -5%, respectively.⁸

Working women value the government subsidies of child care, elderly care, and school programs that free them from family responsibilities and that make their work in the market place possible. One result of this is a gender voting gap alluded to above. When a large number of those working women are employed by the welfare state, they also, of course, value those jobs. This deepens the gender voting gap, as the usual battle over the how much the state should substitute for the market in the provision of services is leavened by the tradeoff between men's jobs in the

⁷ Hagen (1991:68) reports that in the early 1980s, women comprised 74-80% of "welfare state employees" in Denmark, Norway, and Sweden, although the figures for all public employment in Table 2 show slightly lower shares.

⁸ Interestingly, the biggest differences were among people over age 55. Older men, apparently, are now free to retire earlier, but older women are opting to work.

private sector and women's jobs in the public sector. Working women come to support social democratic parties that champion state spending and state employment, and become an interest group worth targeting.

But how does the gender voting gap lead to an increase in female legislative representation? If the gender gap were seen to be irrevocable, and women could be treated as a "captured vote" by social democrats (and as unavailable for rightist parties), then one might think that there would be no incentive for parties to up the ante by nominating women to office. The story would end at the gender gap. However, when FLFP rates reach near half the workforce, and when there are several parties to compete for female voters, there is every reason for women to be offered not just policies, but representation.

As we discussed in section 2, this is where we think the electoral system comes into play. Because PR allows small, geographically dispersed parties to survive, and because large district magnitudes allow for the nomination of female candidates alongside male candidates (and not so blatantly "in place of" male candidates), there is both room for women's political organizations to play one party off against another, and for parties to accommodate them through nomination. In New Zealand, for example, the large parties were obliged to nominate more women after a small, leftish party had made gender equality an issue (McLeay 2000; Hill and Roberts 1990). In others, e.g., Norway, there is evidence that women's groups themselves forced the issue by exploiting the preference voting and large magnitudes of (Bystydzienski 1994) allowed there in the early 1970s.

This shows that electoral rules, and the party systems they engender, matter. But, as we have argued, a key prerequisite to women being nominated and, eventually, elected, is the demand for policies that comes from the move of women into the workforce. Where that move is through public sector jobs, the gender gap over issues is reinforced by a feminization of the traditional battle over big versus small government, and parties compete to show their allegiance to working women by offering them more and better places on the ballot. By contrast, where women's welfare is linked first and foremost to their husbands' income, or where women's own income is not facilitated by state-provided jobs, the gender gap is smaller, other things equal, and working women have few special demands that are worth pursuing to political parties.⁹

⁹ One anomaly in this formulation is the United States, where the gender gap has been large since about 1980, but has not induced parties to nominate more women for political office. We see three possible explanations, two of which are beyond the scope of our present paper, but are worth pursuing in future work. The first of those is the non-economic part of the gender gap in the U.S., namely big differences between men and women over such issues as abortion and the death penalty. These became important aspects of the partisan cleavage in the U.S. with the advent of the Reagan Administration. Second, we suspect that federalism might play a part here. Insofar as the issues that women value more highly than men, or that divide opinion by gender are those handled by local government, then it makes more sense that we would see changes in local, not national politics. We do know that female representation is higher in the U.S. local politics than at the national level, but at this point the impact of federalism is purely a speculation on our part. The third reason that the gender voting gap in U.S. politics has not translated into WIP (at the national level) is precisely the plurality electoral system and two-party system that has been cited so often in the literature. Even in the UK, Canada, and pre-1994 New Zealand, all plurality systems, there have always been small third and fourth parties, but the U.S. has remained steadfastly two-party, which lowers the incentives of either to nominate women in all but the safest partisan districts.

In the section that follows, we explore this model statistically, before turning to detailed case studies of Sweden and Germany to see if the sequencing of events there supports or undermines the correlations that turn up in the large n test.

4. A Statistical Test

The Dependent Variable

Our dependent variable is a non-linear transformation of the percentage of seats in a nation's lower house that are occupied by women. Most previous research in this field has used this dependent variable in its untransformed state. Aside from the obvious objection to linear modeling of a percentage – namely that linear predictions aren't bounded at zero and 100 whereas percentages are, leading eventually to impossible predictions from a linear model – we believe that rises in female legislative representation really are non-linear.

To justify the transformation detailed below, we draw on Matland's (1993, 746-750) insights about the growth of female representation in Norway's *Storting*. Matland finds that the first steps away from a totally male dominated legislature were difficult to take and took place over a large number of years. He describes the first women in the *Storting* as "giants among men" fighting on the basis of their individual prowess against all forms of cultural discrimination to gain their seats. These women won representation *despite* being women. Matland notes that this state of affairs later gave way to a "one is enough" policy at the regional level, where party lists were drawn up and then re-drawn after some enterprising party official noticed "By jove – we haven't got a woman!" (Matland 1993, 747). Women were thus placed on the ballot partly because of their gender, but there was no guarantee that they would be given an electable position. This is quintessential tokenism. Thereafter followed a steep rise in the level of representation, as parties engaged in a concerted effort to select and elect capable women to the *Storting*. Once representation reached levels of 30% and above, however, the pace of growth slowed, perhaps following a decline in the salience of women's demands for further increases in representation.

Salmond (2004) provides evidence that a similar process took place in Germany, Canada and New Zealand, in which the first steps away from hegemony and the last steps to equality are much harder to take than the intermediate strides. The slowing rate of growth during the 1990s in many of the high representation countries such as Finland and Denmark adds further empirical weight to this idea that the growth of female representation is not linear. It appears to be very slow, then fast, then slow again as a nation approaches gender parity. The growth of women's representation in legislatures appears not to be linear over time, but S-curved (see Figure 1).

[FIGURE 1 ABOUT HERE]

The theory behind this S-curved model of representation is that broad social change requires a near consensus that a problem exists in society and that it needs to be solved. In the case of women's representation, it may take time to develop the consensus that it is unfair that women are absent from parliaments, but a short time to break the consensus that more work still needs to

be done. Thus most of the growth in women’s representation appears to be concentrated over a short period, buttressed on either side by periods of little change.

We therefore transform the dependent variable to model the growth of women’s representation as S-curved rather than linear over time. Specifically we use the log odds of a given legislator being a woman, rather than the percentage. Using the percentage as a starting point, the log odds are calculated using following:

$$LogOdds = \ln\left(\frac{[constraint]}{[percentage]} - 1\right)$$

In this equation, the ‘constraint’ represents an ex-ante researcher-imposed limit on the level to which the predicted value of the percentage can rise. Note that this is different from any constraint on LogOdds. In this paper, the value of the constraint is set at 50%, because this level of representation approximates gender parity in the legislature – the almost universally agreed goal in this area of the feminist project. Our results, however, are in no way dependent on this choice of constraint level.¹⁰ The S-shaped model as outlined above is only useful in a cross-national study if one assumes that all countries in the sample started giving women representation at the same time. This is clearly false, so a variable giving the time since suffrage was granted to women is used to control for the time at which a society started to confer political rights on women.

One consequence of the transformation is that it changes the “natural” signs for each of the independent variables in the system. If we expect a variable to be associated with an *increase* in the percentage of legislators who are women, we would expect that variable to be associated with a *decrease* in the log odds of the percentage. In order to compensate for this effect, we perform a simple linear transformation on the log odds, which has the effect of restoring the “natural” sign for each of the independent variables’ estimated coefficients. It does not affect the coefficients (except the constant) in any other way. The dependent variable for the statistical tests is therefore:

$$DepVar = 1 - \left[\ln\left(\frac{[constraint]}{[percentage]} - 1\right) \right]$$

Independent Variables

The two “new” independent variables that we bring to this literature are government spending as a percentage of GDP, and a measure of civilian government employees as a percentage of the workforce.

¹⁰ Robustness checks are performed on model 4 of Table 3 in order to ensure that this choice of upper bound is not driving the results. The model is re-run with the constraint set at 30%, 40%, 60%, 70%, 80%, 90% and 100%. All the models with constraints other than 50% have a lower R² than the 50% model. In none of the alternative specifications any variables switch signs or gain or lose statistical significance.

The government spending variable is taken from the World Bank's World Development Indicators (World Bank 2000). It is intended to measure (roughly) the size of a nation's welfare state. This is, of course, an imperfect measure of the welfare state given that other expenditures such as military spending are included. More precise measurements are not as widely available as overall government expenditure, however, and we are confident that total expenditure is strongly correlated with welfare expenditure (broadly defined to include, for example, public healthcare, education and childcare expenditure in addition to traditional welfare payments). We expect that higher levels of government expenditure should be better for women's representation in legislatures because welfare state policies that free women from previously held family duties provide increased opportunities for women to work outside the home in any field. Such policies also induce women to involve themselves in politics in order to protect the broad gender equity gains that welfare state policies achieve. Large welfare state policies thus provide the motive and opportunity for women to enter legislative politics.

Note that we do not expect this government expenditure variable to matter because of female *employment* in the public sector – only through the *policies* of the welfare state. To test our argument about employment, we introduce a variable measuring the size of the (non-military) public sector workforce as a percentage of the total. We would have liked to use the female public sector workforce as a percentage of the total workforce, but data points are few and far between. We expect this public sector employment variable to be positively associated with levels of representation because (1) women in public sector jobs are shielded from the statistical discrimination against hiring women in specific-skills economies that are typical of PR countries; and (2) public sector employees have a greater stake in defending the welfare state which is the source of their employment.

In section 3, we argued that welfare states are good for women's representation and that welfare states are especially good for representation levels when the welfare state itself employs a lot of women. These two variables allow us to empirically test those two theoretical contributions.

The other independent variables are the established covariates of female representation. Most have been examined thoroughly in previous literature on this topic, and so are not subjected to extensive description here. Others have noted that the electoral system, leftism, the assembly size, dates of suffrage, and FLFP have impacts on levels of women's representation, and we include variables to capture each of these. The complete set of variables is as follows:

The dependent variable is the logged odds of the percentage of lower house parliamentarians who are women.

Independent variables

"Left" measures the percentage of seats in the lower house that are controlled by leftist parties. The Castles and Mair (1984) research, supplemented by Swank, provide the coding for leftist parties.

"Log(Assembly size)" is the natural log of the number seats in the lower house of parliament or congress.

"Log(DM)" is the logged value of the average district magnitude across the country.¹¹ This variable acts as our measure of electoral systems.

"Year of suffrage" measures the year in which full voting rights were extended to women. This ranges from 1893 in New Zealand to 1971 for Switzerland.

"Gov't expenditure" measures total government spending as a percentage of GDP.

"Female labor force" is the percentage of the total labor force who are women, as collected by the World Bank. Again, and in line with the existent literature on this topic, increased female participation in the labor force should lead to increased legislative representation.

"Public sector workforce" is the percentage of the workforce employed in the public sector (excluding the military).

Methods

Most earlier studies on this topic use purely cross-sectional data and linear estimation methods. We discuss above why the assumption of linearity is troubling, and how and why we adopt a non-linear S-curve model of female legislative representation. Cross-sectional data is also inferior in this context, and in this study we rely on a panel dataset covering up to 166 elections in 21 advanced industrialized countries.¹² This allows us to test causal mechanisms while controlling for the autocorrelation caused by factors such as incumbency advantage and cultural acceptance. The cross-sectional studies in this field are unable to account for this important phenomenon. Finally, we use panel-corrected standard errors in our estimations, along with a common-pool correction for autocorrelation (Beck and Katz 1995, 1996).

Results

The results of our analyses are reported in Table 3. Notice first that model one replicates (albeit with panel data) a common regression from earlier studies in this area. Our dataset provides very similar results, with high district magnitudes, leftism, and high levels of female labor force participation all being associated with high levels of women in parliament.

[TABLE 3 ABOUT HERE]

Models 2 through 4 introduce our new variables. Both variables perform well, reaching statistical significance in the expected direction in all models where they are included.

¹¹ For two-tier PR systems, a weighted average of the two tier's district magnitudes is used. For mixed member systems, the DM of the higher tier was used because the overall length of the electable party list is the most important thing for women's representation. See Matland's (1993) discussions of party magnitude on this point.

¹² We collected data on levels of female representation for 366 elections in 23 countries since World War II, but the availability of some independent variables, particularly those collected by the World Bank, is very limited prior to 1970. These restrictions are what produce the smaller sample.

Increases in government expenditure are consistently associated with increases in female legislative representation. Note that this result controls for leftism and labor force participation, suggesting that there is something more to the explanation than these variables alone. Our theory provides that “something.” Note also that the inclusion of the government expenditure variable knocks out the significance of the leftism variable, a “usual suspect” in much of the previous research on this subject. We will return to this later in this section.

The results on the government expenditure variable therefore lend support to our proposition that countries with large welfare states have more female politicians. The size of the public sector *workforce* also appears a significant predictor of female representation in parliament. We have argued that the size of the public sector workforce mattered for women’s representation because the incentives that public sector employment provides for women to enter politics are stronger than exist when women are employed in the private sector. The way we have operationalized our model, with separate measures of the employment and policy implications of welfare states, isolates the job-protection mechanism that we argue leads from high public sector employment to high representation levels. The results presented in Table 3 provide support for this job-protection hypothesis.

Table 3 also shows that all of the “usual suspects” from previous literature perform well, with the notable exception of leftism. Electoral systems with large district magnitudes perform significantly better than those with small district magnitudes. Countries with high levels of female participation in the labor force enjoy higher levels of female legislative representation than others. These patterns are consistent across all four models in the table.¹³

The weak results on leftism appear at odds with conventional wisdom (although it should be noted that Matland 1998 also found no results on this variable), but it is more of a clarification than a refutation. First, since leftism loses its significance when we control for government spending, we show that the primary mechanism by which left governments have an effect on female representation is by way of egalitarian public policy and employment of women in the public sector, rather than a greater likelihood of leftist parties nominating women *per se*. Earlier studies that included a leftism (or rightism) variable but excluded any measure of the welfare state conflated these two effects.

Second, the direct (not policy contingent) leftism effect is, at least in theory, transitory. Matland (1993) details how the leftist parties in Norway led the charge in terms of nominating women to their party lists and how other parties, fearful of losing votes on the “women issue,” followed suit after varying delays. If Matland’s story is applicable more generally, then it seems that in equilibrium every party will eventually produce a gender-balanced list. Remember also that the equilibrium before feminism was that no party had any women on its list. Purely cross sectional studies (especially those using data from the period between the two equilibria) may find large

¹³ Another consistent result, and one that previous theorizing on this subject would not predict, is that larger parliaments tend to do worse in terms of representing women than smaller parliaments. Further analysis shows that the impact of the assembly size is not simply indicative of a population size effect. Because of the unexpected nature of this result, we re-ran the main analysis without the assembly size variable to check the robustness of our main findings. Both the government expenditure variable and the public employment variable retained their sign and size, and were significant at conventional levels.

but inflated results for leftism. The more nuanced analysis that this study's panel dataset allows, however, shows the over-time weakness of the effect.

To check the robustness of our results, we re-ran model 4 of Table 3 forty-six times, each time excluding one country or one year. This procedure helps to ensure that the results are not being driven only by a small subset of the observations. In all cases both the public sector workforce variable and the government expenditure variable retained their sign, size and significance. These robustness checks, in conjunction with the robustness checks using different specifications of the dependent variable as reported in footnote ten, together provide strong support for our main results.

5. Case Studies: Electing Women in Sweden and Germany

The statistical analysis shows that, in aggregate, public spending and public employment are both strong predictors of female political representation. In this section, we examine the sequence of events in two countries, Sweden and Germany, to see if the link holds up under a micro-analytical lens. The cases add credibility to our claim that public sector employment allowed the Swedish social democrats to smooth the conflict of interest between its core male union membership and working women in a way that was not available to their German counterparts.

We begin in the early postwar period when female labor force participation in Sweden and Germany were at comparably low levels. Around 1960, 54.2% of working age women were in the workforce in Sweden compared to 49.3% in West Germany, both of which were notably higher than the US rate of 42.6% (Mosesdottir 2000: 197). But most of these were young women who were expected to quit working upon giving birth, or women who had come back into the workforce after their children were older. Gender norms in both countries stigmatized employment on the part of married women, particularly those with young children (Lesthaeghe 1995). In the words of one member of the Swedish parliament, “[children’s] welfare is promoted best if the child is able to keep hold of his mother’s apron strings. . . . We do not want certain individuals to be educated to take care of children as soon as the mothers want to abandon them” (Hwang and Broberg 1992: 32).

Given the low female labor force participation in both countries, it is not surprising that female representation in labor unions was also low. In 1960, only 22% of the members of the LO, the main Swedish labor confederation, were women. Likewise, a few years later, in 1968, women workers’ rate of organization, 56%, was substantially below men’s, 78% (LO website: www.lo.se/english/pdf/union.pdf). While these figures would rise dramatically in coming decades, they suggest that in the 1960s women were not particularly mobilized and not especially powerful within the Swedish labor movement. In short, there is little to suggest that Swedish policies favoring maternal employment emerged endogenously as a result of pressure from an existing strong feminist movement within the Social Democratic Party or the LO. We need to look elsewhere for the differences that were to emerge between the two countries.

Sweden

The extent of social democratic hegemony in Sweden is indicated by the fact that the party held power without interruption for four decades from the mid-1930s to the mid-1970s. The main features of the social democratic regime, based on the “historic compromise” reached in the town of Saltsjobaden in 1938 between the LO and the SAF (the Swedish Employers’ Confederation), were its commitment to radically redistributive social welfare programs and collective bargaining at the national level in exchange for a guarantee that private ownership of enterprises would not be disturbed (Stephens 1996). Another important feature of Swedish social democracy was its commitment to wage compression. Wages in high-productivity sectors of the economy were restrained in order to promote the international competitiveness of Swedish business. Workers in less productive industries and the service sector benefited from this “solidaristic wage policy” in the form of higher wages and social benefits. Finally, while sheltering such workers, the Swedish government also made efforts to move the economy in the direction of high-productivity, and hence high-skill, production (Stephens 1996: 40-41). All these features of social democratic rule would play an important role in the integration of women into the Swedish labor force.

By 1970, the governing social democrats confronted a tight labor market in which unemployment was negligible and the overwhelming majority of employed men belonged to a labor union (Sweden 2000). In response to the prevailing labor shortage, there were two options: stepping up recruitment of immigrant workers or bringing more women—which inevitably meant more married women and mothers—into the labor force. In the end, Sweden recruited extensively from both groups, in a way that was intended to guarantee that these new workers would be organized into the labor unions and mobilized as left voters.

The social democratic government enacted a number of laws which, together, made employment much more attractive to women. First, in 1971 separate taxation of married couples was made mandatory. Combined with high marginal tax rates, this reform made a second paid worker in the family more desirable. In addition, in 1974 a system of parental insurance was introduced, which pays women for lost salary rather than giving them flat-rate maternity benefits (Lewis and Astrom 1992). Before modest retrenchment in the 1990s, the duration of the allowances was increased from 180 days in 1974 to 450 days in 1989 (National Insurance Board, Statistics Sweden). The impact of this policy was to create a strong incentive for a woman to establish herself in the labor force before having a child in order to gain eligibility for the parental allowance benefit. In 1995, Sweden became the first EU country to introduce a parental leave benefit targeted mainly at fathers, the so-called “daddy month” of paid leave which can only be taken by the parent who has not consumed the rest of the statutory parental leave (Rubery et al. 1999:162). Finally, Sweden gradually set up one of the world’s most elaborate and lavish systems of low-cost publicly provided day care. A series of laws and policy changes (the Public Pre-school Act of 1975, the Child Care Act of 1977, the initiation of a “full needs coverage” policy in 1986) resulted in an enormous influx of children into formal day care arrangements, mostly public. From 10,000 day care places in 1966, the number rose to 80,000 (1976), 211,000 (1980), and 400,000 (1995). In 1994, 60 percent of pre-school children (under 7 years of age) had some kind of care outside their own home, with the state supplying 83% of all places (Kjulin 1995; Sundstrom 1993). To put these figures in perspective, public day care is now as large an industry as agriculture, accounting for 2% of Sweden’s GDP. It is also heavily subsidized.

Parental fees cover only 10% of the total cost of providing public day care service. The remaining 90% is covered by the central government or by municipalities (Gustafsson and Kjulin 1995).¹⁴

With some of their family burdens lifted from their shoulders, Swedish women moved into the workforce in large numbers. But even publicly subsidized childcare does not completely even out the cost to an employer of hiring a woman. Employers were obligated by law to pay some wages during parental leave and to allow a woman to reduce her hours until her youngest child reached eight years old. However conscientiously the courts might try to enforce equal employment legislation, firms facing higher costs of hiring women would find ways to put some of the costs back onto women by hiring or promoting them less frequently. It is no wonder that Swedish women were drawn instead into the public sector jobs, typically in education, healthcare, and social work. Figure 2 shows that the growth in female labor force participation moved in lock-step with growth in the Swedish public sector.

[FIGURE 2 ABOUT HERE]

However derisively social conservatives might regard the government's payment of women to look after each other's children, it enabled women in a specific skills economy to find stable and flexible employment that did not penalize them for family-related career interruptions. And by shouldering some of the burdens of family work, the government created a strong gender preference for a large public sector.

[FIGURE 3 ABOUT HERE]

Figure 3 shows that female political representation followed the increase in female labor force participation. We do not posit that this was an automatic response, and that women's groups did not have to work very hard to achieve this outcome. Our point is rather that the movement of women into the labor force created a pool of voters who had a large stake in public policies enabling them to work, and women moving in the *public sector* employment had a further stake in protecting their own jobs. Parties had an interest in wooing these women, whose votes were no longer tethered to their husbands' votes, and to signal their women-friendliness by placing women on the ballot. As early as 1972, the Liberal Party announced that it would reserve 40% of all party positions for women, forcing the social democrats to follow suit (Sainsbury 2004). The two parties ratcheted up their representation of women to near parity with men by the early 1990s.

It is not as ironic as it first seems that the first call for greater female political representation should have come from the Liberal Party, a centrist party not part of the social democratic coalition. The Social Democrats struggled with resistance from within its own ranks: the male dominated manufacturers' unions worried about the effects of wage compression on Sweden's

¹⁴ This influx of Swedish children into formal day care has been endorsed by studies suggesting that day care does not damage children's development, at least for children over the age of a year (Hwang and Broberg 1992:49-51). Coincidentally, this finding also corresponds neatly with Swedish policies of parental leave followed by day care. The production of such studies at this particular historical moment suggests that public attitudes concerning maternal employment do not drive political decision making; rather, public opinion seems to follow what is "normal."

export strength, since paying high wages to public service jobs would come out of corporate and other taxes that would raise the costs of manufacturing. In the early 1990s Metall, the largest manufacturing union, “joined forces with employers calling for restrictive monetary policy and EU membership” (Swensen and Pontusson 2000: 98) while women disproportionately opposed EU membership on grounds that government debt targets and other homogenizing criteria would reduce the security and remuneration of public sector jobs. This tension was at least part of the reason for the decentralization of wage bargaining that delinked wages in the private and public sector.

Germany

Compared to Sweden, Germany is a coordinated market economy in which women find it more difficult to manage both family and career. From a base in the 1960s similar to Sweden’s, the labor force participation of German women reached only 50% in 1986, and 60% by the early 1990s (Engelbrech 1997). Before the 1970s, as few as 40% of married women between 30 and 49 years of age worked, only about 10 percentage points above the level at the turn of the last century (Klauder 1994). As Figures 2 and 3 show, female public sector employment and female political representation are both substantially lower than in Sweden.

What is the connection between relatively low female employment in Germany and its muted female representation? We suggest the explanation lies in inability of the German Social Democrats to maintain high public sector employment given the alternation in office with the Christian Democrats. The total vote share in Germany for center/right parties was not so much greater than in Sweden, but the fact that the conservative parties managed to coalesce into a single party in Germany while they remained fragmented and more often than not, out of government in Sweden seems to have made a significant difference in the policy environments in these two countries.¹⁵

Gottfried (2000) argues that German unions colluded with the government to defend a male monopoly on employment and to consign women to unpaid tasks of social reproduction. While there is some truth to that, we put on it a different spin: the unions’ strategies were more constrained than Swedish unions by what they perceived as possible outcomes. Instead of pursuing an aggressive strategy of expanding their support in the female population, German unions followed a more defensive line of protecting the interests of their current constituents, the core male labor force.

The German solution to labor shortages was to use guest workers and part time female workers as a buffer labor force that could be dismissed in economically hard times. Unions were powerful enough to prevent the use of non-union labor at low wages, but not powerful enough (as in Sweden) to insist that the new immigrant workers become future voting citizens who might well support the main party of the left. Moreover, Germany seems to have created a less extensive public service sector in order to steer clear of inflation. Employing guest workers rather than married women or mothers keeps the social wage private, not a charge on the public purse. Whereas in Sweden the public sector accounts for half of the larger cohort of women in

¹⁵ Esping-Andersen and Korpi 1984. See Carles Boix (1999) for an illuminating discussion about the historical circumstances and electoral consequences of coordination problems among various constituency groups.

the labor force, in West Germany the proportion of women employed in the public sector was under 6%.

The German Social Democrats have always been somewhat more supportive of working women than the center-right Christian Democrats (CDU/CSU), but the Social Democrats have been internally divided. To the extent that the party has had to choose between the interests of potential female supporters and those of actual (male) union-members, it has stayed with the sure thing. They lacked the Swedish social democrats' political room for maneuver to pursue the more radical strategy of supporting mothers' part-time employment and the social benefits necessary to support it.

Unable to transfer the costs of family work onto the public purse, the German unions went along with this policy to defend the interests of the male labor force. While Germany, like most European countries, has a system of family allowances, the amounts paid out do not even approach the cash costs of rearing a child, let alone the opportunity cost for a full-time mother—employment. Indeed, as late as 1986, the CDU/CSU government replaced paid maternity leave for employed mothers with a simple stipend for any parent, employed or not, taking care of a child (Huber and Stephens 2001:268). This move exemplifies the first part of the basic approach toward maternal employment in Germany: modest subsidies for parents, combined with structural constraints on women's employment. Despite the enactment by the Bundestag in 1992 of a nominal right to childcare between the age of 3 and the first year of school (usually at age 6), only 54% of German 3- and 4-year old children are in day care, and among smaller infants the proportion is only 8% (Bundesministerium fuer Bildung und Forschung 2001). In addition, even where care is available, it is provided for only a few hours per day. This pattern is repeated in the vast majority of German elementary and secondary schools, where children are dismissed – without lunch – at noon or 1:00. In summary, the childcare that is provided in Sweden at public expense is provided in Germany privately – by mothers at home.

In 1986, the Green Party began a competitive bidding process for the working woman's vote by adopting a 50% quota for women on party lists. In 1988, the Social Democrats followed suit, though with the lower targets of 25% in 1990, 33% in 1994, and 40% in 1998. In response, the Christian Democrats adopted a one-third quota in 1996 (Meyer 2003). But until government policy enables higher female labor force participation, either by public sector employment or by equalizing the cost to employers of hiring women by imposing mandatory paternity leave, it is hard to foresee parity in legislative participation in Germany.

To summarize, both Sweden and Germany have private sector labor markets that are relatively hostile to female participation because job protection and wage compression raises the costs to employers of hiring employees who will interrupt their careers to take care of the family. But in Sweden, social democratic hegemony has allowed the government to nationalize much of the service sector and to subsidize the costs of career interruption of the women it hires. This has not only enlarged the female labor force, but has created a pool of working women with strong attachment to the public sector spending that enables them to balance family and career. The resulting gender preference gap presents an opportunity for political parties to target with female representation that does not exist to the same degree in Germany or, if we are right, in countries with substantially lower levels of public sector employment of women.

6. Conclusion

Our statistical analysis suggests, and case studies seem to confirm, that female political representation increases in response to political competition for the female vote. As long as women were housewives, parties counted on them to vote with their husbands, more or less. As women have moved increasingly into the workforce, and in particular the public sector workforce, the distinctive challenges that women face in balancing family and career have given rise to a gender voting gap, and have given parties a reason to signal their commitment to female interests by running female candidates.

This story is broadly true across rich democracies, but female representation varies considerably on account of the balance between labor market institutions that inhibit female labor force participation and the countervailing government policies that promote it. The gender preference gap is smaller, and political incentives to appeal directly to women are weaker, when women depend on their husbands' income for their livelihood than when women have their own set of priorities to juggle.

We are not arguing, however, that female labor force participation is the whole story behind the gender preference gap and that public sector employment is only instrumental in achieving it. If that were true, the public sector coefficient would drop out once we control for working women. Women employed in the public sector enjoy a combination of flexibility in working hours and job security that only a public employer can afford to provide. These women have a larger stake in the welfare state than either private sector women, who have internalized some of the costs of career interruption, or than the public sector men for whom career interruption on account of family work is less likely.

We leave for future work the exploration of three further questions. First, we have considered only in passing how district magnitude might affect female political representation, but it is possible that there is a direct and an indirect affect. As a direct affect, single member districts' requirement that women candidates receive a plurality of votes poses a coalitional hurdle that may exceed current levels of working women. The indirect affect is that single member districts tend to have weaker job protections and wider income dispersion, giving women a less cohesive set of political preferences. At what levels of female labor force participation, or under what labor market conditions, might females reach representational parity under SMD systems?

Second, party systems vary in how closely the party leadership controls nominations. We might imagine that systems with strong intra-party competition and personalistic electioneering would hurt women because political career interruptions on account of family responsibilities cut into the acquisition of seniority that is so crucial to electoral success in those systems. On the other hand, for countries where women are a large bloc of public sector employees and who have strong mobilizational capabilities, the personal vote may play to the female ticket. We might expect to find a nonlinear relationship between personalistic electoral rules and female representation, mediated by the magnitude and intensity of the female preference gap.

The third is an intriguing anomaly. What accounts for the U.S.'s anemic record in electing female representatives given its robust female labor force and its relatively large gender voting gap? Even considering that American working women lack the stronger preference intensity and

higher single-issue turnout that a large female public sector workforce might produce, the U.S. case seems to highlight the importance for female representation of competition between parties for the working woman's vote. Perhaps the peculiar importance of moral and religious issues for the political right in the U.S. leaves the Democratic party as the only viable party for working women, allowing that party to reap the benefits of the gender voting gap without raising the profile of female legislators. Perhaps the religious vote is sufficient to produce a majority out of the coalition of at-home women and working men who don't want to pay higher taxes for socializing the costs of family work. Whatever its cause, the low ranking of the U.S. in the league tables of female representation bears further scrutiny.

Table 1: Basic data for 23 countries

Country	Electoral System for the lower House (1999)	Female Labor Force Participation (1999)	Level of female representation in the lower House (2001)
Finland	PR	48.0	37.0
Sweden	PR	48.0	42.7
Denmark	PR	46.4	38.0
Norway	PR	46.3	36.4
USA	SMD	45.8	14.0
Canada	SMD	45.6	20.6
Iceland	PR	45.3	34.9
France	SMD (2-round)	44.9	10.9
New Zealand	MMP	44.8	30.8
Portugal	PR	43.9	18.7
United Kingdom	SMD	43.9	17.9
Australia	SMD (AV)	43.5	30.2
Germany	MMP	42.2	30.9
Japan	MMM	41.3	7.3
Belgium	PR	40.7	23.3
Netherlands	PR	40.4	36.0
Austria	PR	40.3	26.3
Switzerland	PR	40.3	23.0
Italy	MMM	38.4	9.8
Greece	PR	37.6	8.6
Spain	PR	37.0	28.3
Luxembourg	PR	36.6	16.7
Ireland	STV	34.2	12.0

Figure 1: Women's representation over time in four advanced democracies.

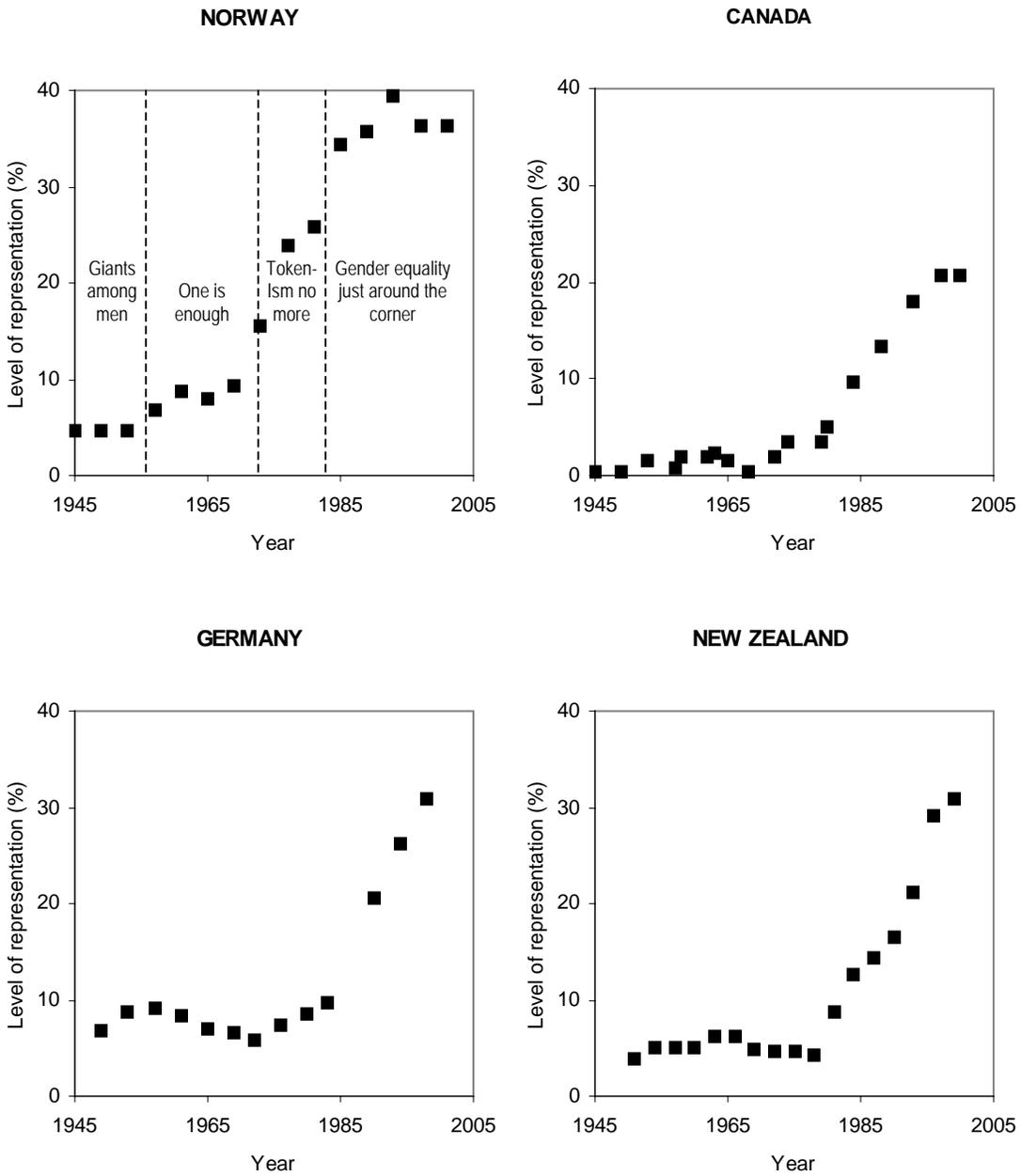


Table 2: Female Share of Public Sector Employment and of Overall Employment

Country (Year)	Female Share of Public Employment (a)	Female Share of Total Employment (b)	Gap (a-b)	Percentage Gap ([a-b]/b)
Sweden (2000)	73.4 %	47.3 %	26.1 %	55.2 %
Denmark (1985)*	62.3 %	44.8 %	17.5 %	39.1 %
Canada (2000)	58.2 %	44.4 %	13.8 %	31.2 %
Finland (1985)*	58.9 %	47.9 %	11.0 %	23.0 %
Germany (2000)	53.5 %	42.8 %	10.6 %	24.8 %
France (1994)	53.1 %	42.6 %	10.5 %	24.5 %
Norway (1984)*	58.3 %	47.9 %	10.4 %	21.7 %
Italy (2000)	49.8 %	39.5 %	10.3 %	26.2 %
United States (2000)	53.7 %	45.2 %	8.6 %	19.0 %
Spain (1990)	36.6 %	28.4 %	8.3 %	29.2 %
Belgium (1992)	46.3 %	38.9 %	7.4 %	19.1 %
Netherlands (1999)	52.4 %	46.0 %	6.4 %	14.1 %
Austria (1997)	45.3 %	40.6 %	4.7 %	11.6 %
Ireland (1996)	44.2 %	44.0 %	0.2 %	0.5 %
Luxembourg (2000)	35.9 %	37.0 %	-1.1 %	-3.0 %

* From Alestalo, Matti, Sven Beislev, and Bengt Furåker 1991. "Welfare State Employment in Scandinavia." In Kolberg, Jon Eivind, ed. *The Welfare State as Employer*. Armonk, NY: M.E. Sharpe, Inc., p.51. All other data are from the Luxembourg Income Study and the Luxembourg Employment Study Database

Table 3: What explains variations in female legislative representation?

Estimation method	(1)	(2)	(3)	(4)
Dependent variable	S-curve GLS, with panel-corrected SEs and common AR1			
	1-(Log odds of percent MPs who are women)			
Constant	13.261*	1.579	6.023	-3.977
p-value	0.027	0.822	0.316	0.544
Left strength	0.009***	0.002	0.007**	0.003
p-value	0.000	0.254	0.005	0.324
Log(Assembly size)	-0.678***	-0.718***	-0.627***	-0.737***
p-value	0.000	0.000	0.000	0.000
Log(DM)	0.231***	0.224***	0.244***	0.220***
p-value	0.000	0.000	0.000	0.000
Year of Suffrage	-0.008**	-0.002	-0.004	0.001
p-value	0.016	0.525	0.245	0.786
Female labor force	0.116***	0.139***	0.070***	0.106***
p-value	0.000	0.000	0.000	0.000
Gov't expenditure		0.023***		0.023***
p-value		0.000		0.000
Public sector workforce			0.084***	0.052***
p-value			0.000	0.000
Adjusted R ²	0.662	0.701	0.722	0.753
N	229	166	127	127

Figure 2: Women in the workforce

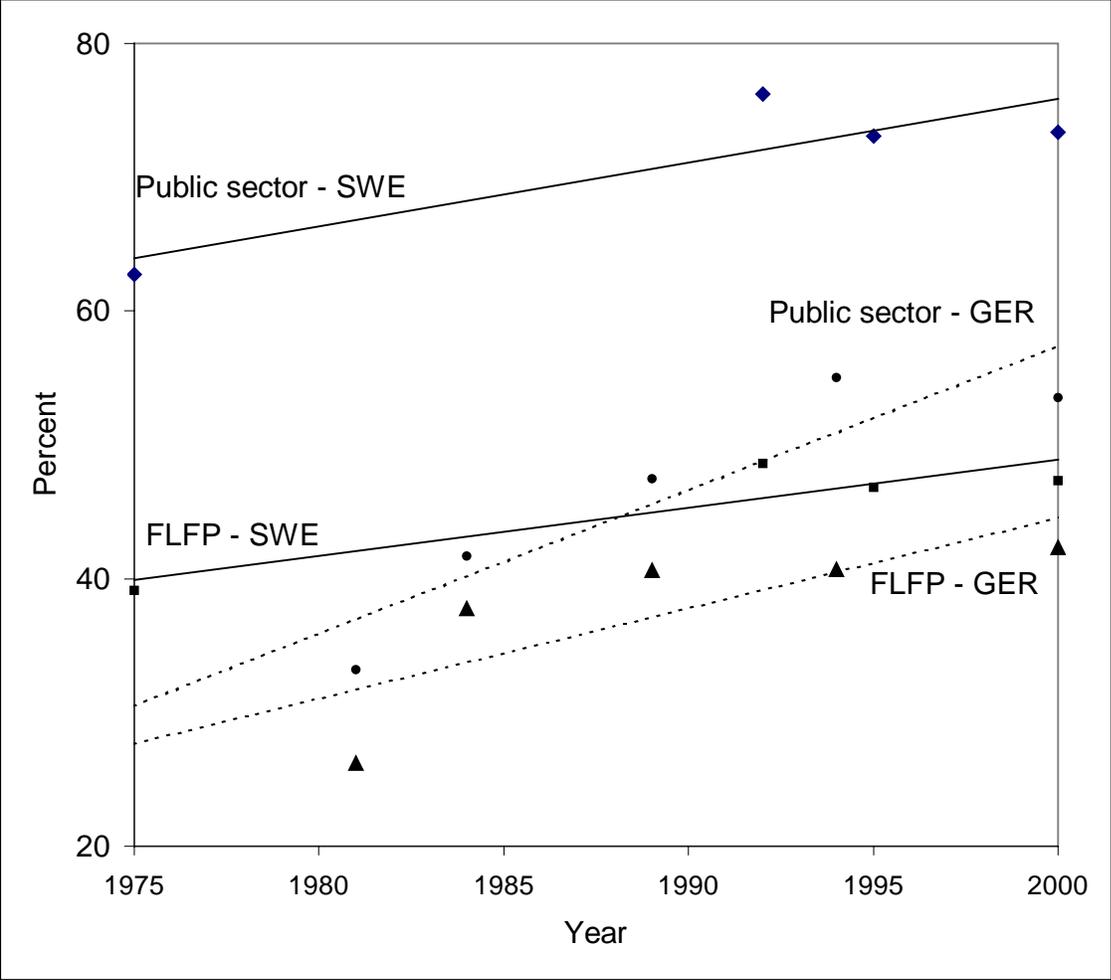
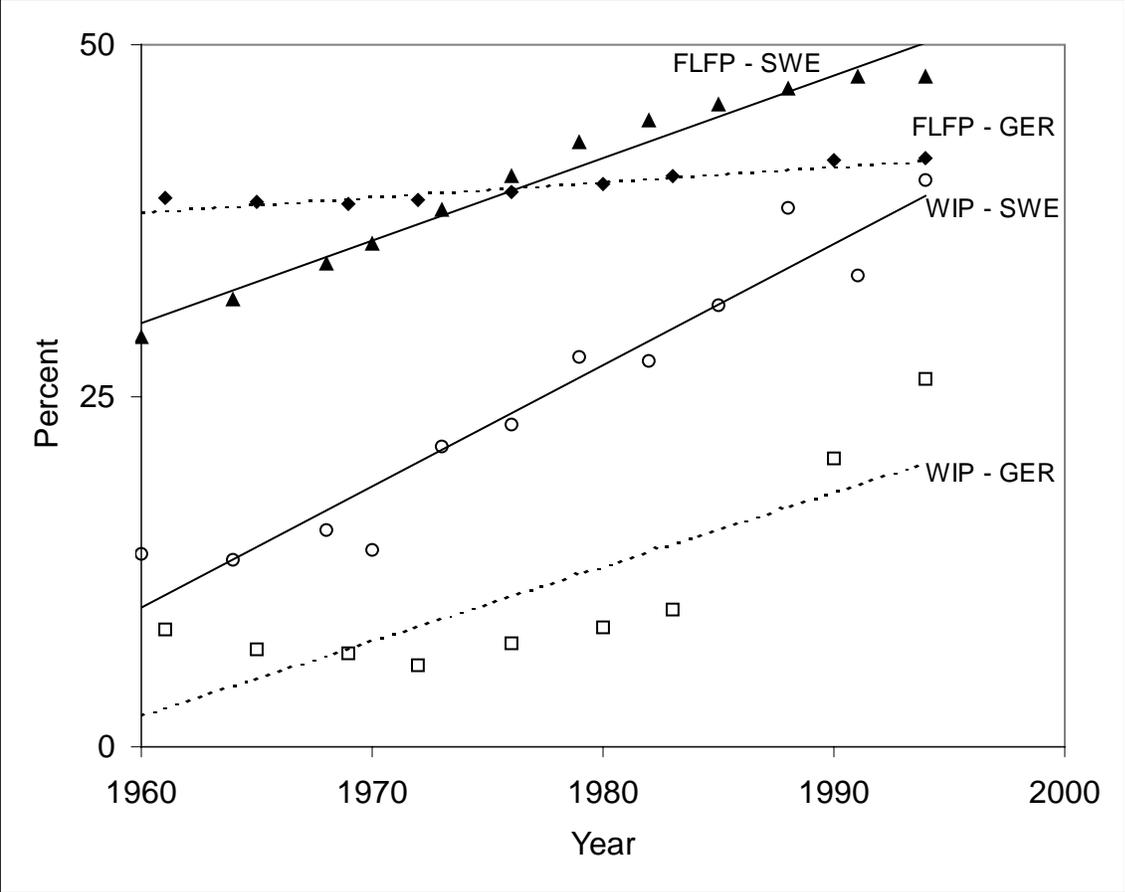


Figure 3: Public sector employment and WIP



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