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The Prevalence of Welfare State Policies and Gender Socioeconomic Inequality: A Comparative Analysis

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Abstract

The present study examines the hypotheses that progressive welfare-state policies are likely to increase women's labor force participation, but at the same time to increase both occupational segregation and earning gaps between economically active men and women. Using data from 20 industrialized countries (obtained from the Luxembourg Income Study), we combine both individual-level and country-level variables into one data file. The country-level variables pertain to a series of family oriented policies enacted by the state, and to the size of the public welfare sector. The data are analyzed to estimate the net effects of welfare state policies on female labor force participation, occupational segregation, and gender earnings inequality across the 20 countries. The analysis lends firm support to the hypothesis that progressive welfare policies are associated with higher rates of female labor force participation and with higher rates of gender-based occupational segregation but only limited support to the hypothesis that welfare-policies are likely to decrease gender inequality in earnings. The direct and indirect effects of welfare-state policies on earnings inequality obtained from multi-level regression models are discussed and re-evaluated in light of sociological theory.

The Prevalence of Welfare-State Policies and Gender Socioeconomic Inequality: A Comparative Analysis

One of the most significant social changes that took place during the second half of the twentieth century was the dramatic and steady rise in female labor force participation. In most countries and throughout the world women had begun joining the economically active labor force in ever-increasing numbers, and the trend still continues. As a result, social scientists shifted attention and intellectual interests to the study of the causes and consequences of women's labor force participation, changes in the relative position of women in national labor markets, and patterns of gender-linked socioeconomic inequality. The growing body of comparative literature on the subject has repeatedly demonstrated that both labor force participation and gender-based socioeconomic inequalities are significantly influenced by structural characteristics of the social system such as level of economic development, the industrial composition of the labor market, the shape of the stratification system and various aspects of structured inequality (e.g. Semyonov 1980**,** Treiman and Roos 1983, Rosenfeld and Kalleberg 1990, 1991, Charles 1992, Whitehouse 1992, Jacobs and Lim 1995 , Rubery, Bettio, Fagan, and Maier 1997, Almond and Rubery 1998).

In recent decades, researchers have begun to stress the central role played by social policies, especially by welfare policies and family oriented services, in affecting women's economic activities and labor market positions (e.g. Gornick, Meyers, and Roos 1997, 1998, Esping-Andersen 1999, Korpi 2000, Stier, Lewin-Epstein, and Braun 2001, Daly 2000, Orloff 2002). Whereas all students of the welfare state system agree that progressive welfare policies, availability of public services, and prevalence of family oriented policies provide women with greater opportunities to join the economically active labor force (Gornick,

Meyers, and Roos 1998, Esping-Andersen 1999, Korpi 2000, Stier, Lewin-Epstein, and Braun 2001, Daly 2000, Orloff 2002), they do not agree on the impact of welfare policies on the occupational status of women and on gender-based earnings inequality. In effect, researchers have debated whether prevalence of welfare policies and public services harms or improves occupational attainment of women and whether it increases or decreases socioeconomic gaps between economically active men and women (e.g. Harnes 1987, Charles 1992, O'Connor 1993,Hansen 1995, 1997, Hemstrom 1998). What all these scholars have in common, however, is the idea that welfare-state policies and prevalence of services can be viewed as a characteristic of the social system which can influence, in turn, gender inequality in attainment of occupational status and earnings.

To date, most empirical examinations of the impact of welfare policies on the position of women in the economic arena have focused on rate of labor force participation (e.g. Gornick, Meyers, and Roos 1998, Esping-Andersen 1999, Korpi 2000, Stier, Lewin-Epstein, and Braun 2001, Daly 2000, Orloff 2002). Empirical studies on the effect of welfare policies on women's occupational status and earnings however, are rare. While the former body of literature lends firm support to theoretical expectation that progressive welfare policies are likely to increase women's economic activity, we know very little on the impact of welfare policies on gender linked occupational and earnings inequality.

In the present paper we provide a systematic and large-scale comparative analysis of the impact of welfare policies and public services female labor force participation, gender occupational segregation, and gender inequality in earnings. We believe that the impact of welfare policies on gender inequalities can be best understood only when these three aspects of labor market outcomes are simultaneously considered. Although these three aspects are

interrelated, each may be differentially affected by welfare policies. Hence, in order to understand the ways through which welfare policies affect gender earnings inequality one has to evaluate the impact of welfare policies while considering rates of both labor force participation and gender occupational segregation.

To examine the ways welfare policies affect gender inequality in labor market activities and performance, we employ data obtained from twenty industrial countries. First, we construct an index of welfare policy (based on series of measured indicators) and combine it with individual level micro data. We utilize this data set to examine first, the relations between the welfare-policy and rates of female labor force participation; second, the relations between the index of welfare policies and measures of gender occupational segregation and third, the direct and indirect effects of welfare policies on earnings inequality between men and women. By so doing we will be in a position not only to resolve controversies in the literature but also to contribute to a better understanding of the sources of gender inequalities in the labor market and the ways through which welfare policies affect earnings disparities between economically active men and women.

Data Source

Data for the present analysis were obtained from the Luxembourg Income Study (LIS), which serves as an archive for comparable micro-dataset for a large number of industrialized countries. The analysis reported here was restricted to the 20 countries that provided detailed information on demographic, labor market attributes, and earnings of individuals, age 25-60, from the most recent LIS data-wave, and for which detailed information on welfare policies were available.

The individual-level variables included in the analysis are those traditionally employed in models predicting economic outcomes. They were recoded to ensure comparability as follows: gender (men=1), marital status (married=1), education (academic degree=1), presence of pre-school children (=1), age (in years), participation in the economically active labor force (employed=1). Gender-linked occupational segregation was measured by three indicators: first, employment in a female-typed occupation (=1), second, employment in a male-typed occupation (=1), and third, employment in a managerial occupation (=1).[1] Annual earnings were defined once in terms of logarithmic transformation of the local currency and once in terms of percentile ranking.

Data for construction of the index of family oriented welfare-policy were obtained from a variety of secondary sources (detailed list of the data sources for each country is displayed in Table 1). The index is composed of three measured indicators: number of maternity leave weeks with full pay, percent pre-school children attending publicly funded child-care facilities, and percent of the work force employed in the public welfare sector. It was constructed using first principal component of the factor-analysis procedure[2]. We believe that these three components when combined into an index capture the scope of family oriented welfare policies and availability of public services in each country. Whereas each component captures somewhat different aspects of the welfare state, they are highly interrelated and as an index provide better measure of the complex concept "welfare state" or "prevalence of welfare policies". In the remainder of the paper we will refer to this index as "welfare policy index" (hereafter WPI), while keeping its operational definition in mind. The distributions of WPI and its components across the 20 countries are displayed in Table 1.

Insert Table 1 About Here

The values presented in Table 1 reveal considerable variation among the countries on each component of WPI. The variation is most pronounced with regard to maternity leave, with an average of 18.5 weeks with full pay (s.d.=12.6) and least pronounced with regard to publicly funded child care facilities, with an average of 41.6 percent children in such pre-school facilities (s.d. = 14.0). The relative size of the public welfare sector ranges between 25 percent in Sweden and Denmark to less than 10 percent in East and Continental European countries such as The Czech Republic, Slovakia, Switzerland, and Germany. In general, the data presented by the index are in line with the typology offered by Esping-Andersen (1990) for classifying welfare state regimes. Countries traditionally classified as social democracies (e.g. Sweden, Denmark, Norway and Finland along with Israel) are at the top of the distribution while liberal regimes (e.g. US and Australia along with Switzerland) are at the bottom of the distribution. Countries representing the conservative welfare regime (e.g. Italy, Spain along with Eastern European countries) are at the center of the index distribution.

Welfare Policies and Labor Force Participation

Previous research on the topic has operated on the theoretical premise that the prevalence of welfare policies is likely to increase women's participation in the economically active labor force (e.g. Gornick, Meyers, and Roos 1998, Esping-Andersen 1999, Daly 2000, Korpi 2000, Orloff 2002). Progressive welfare systems facilitate women's way into the world of paid labor by providing them with greater support through a variety of family oriented policies and

services. The expansions of welfare policies coupled with the growth of the public welfare sector are associated with rise of public care services. Availability of such services, in turn, reduces women's conflict with familial and traditional roles. Indeed, in societies characterized by developed welfare services more women, especially mothers, are able to leave home and join the paid labor force.

It was suggested in the sociological literature that the welfare sector not only provides women with supportive services, but also with employment opportunities through the type of "female demanding" occupations and jobs associated with welfare care services (e.g. Rein 1985, Alestalo, Bislev and Furaker 1991, Kolberg 1991, Kolberg and Andersen 1991, Esping-Andersen 1999). It was further suggested that in places characterized by progressive welfare systems it is economically irrational and rather costly for women not to join the economically active labor force. That is, the supply of publicly funded services decreases the costs resulting from childcare penalty and increases the net gains and benefits associated with economic participation (Gornick, Meyers and Roos 1998).

Despite the above mentioned, studies that examined female employment rates across different welfare systems have arrived at a curious finding -- levels of participation are highest in two markedly different social systems. That is, in welfare-state regimes (e.g. Sweden, Denmark) and in market-oriented economies (e.g. U.S., Canada) (e.g. Esping-Andersen 1999, Daly 2000, Korpi 2000). The explanation offered for this observation is that both regimes are characterized by a large service sector. However, in the former regime the service sector is almost entirely publicly funded whereas most of the services in the latter regime are part of private businesses.

In columns 1 and 2 of Table 2 we list rates of female labor force participation for women age 25-60 and for mothers to pre-school children, respectively, for the 20 countries included in the analysis. On average, the rate of participation is somewhat higher when computed for all women age 25-60 (mean = 63.1; s.d. = 13.0) than when computed for mothers (mean = 56.4; s.d. = 14.4). The two distributions, however, are quite similar, with Scandinavian countries such as Sweden, Denmark and Norway having the highest values and with Switzerland, Spain and Luxembourg having the lowest values.

Insert Table 2 About Here

In Figure 1 we plot the relations between rates of female labor force participation and the values of the welfare policy index. The data revealed by the analysis strongly support the theoretical expectation that the prevalence of welfare policies is likely to increase female rate of labor force participation. The graphic illustration displayed in Figure 1a yield a correlation r = .403 between WPI and rate of female labor force participation (when rate is computed for the total population) and substantially stronger correlation (r = .602) in Figure 1b when participation rate is computed for the population of mothers of pre-school children. In general, the data presented here suggest that countries characterized by well-developed welfare policies provide women with better opportunities to become part of the economically active labor force. The data further show that in welfare-state countries such as Sweden and Denmark and in market economies such as Canada and the US the rate of participation is higher than expected on basis of the values of the welfare policy index.

Insert Figures 1a and 1b About Here

Welfare Policies and Gender-Occupational Segregation

Whereas all students of the welfare state share the view that expansion of welfare policies and growth of public and family services are likely to increase economic activity of women, especially mothers, they do not agree on the effects of welfare services on either women's occupational attainment or gender-linked occupational segregation. Studies have demonstrated that the rise of the welfare state has led to the expansion of public sector employment, especially to expansion of personal, social and community services (e.g. Rose 1985, OECD 1987, Cusack, Notermans and Rein 1989, Esping-Andersen 1990, Alestalo, Bislev and Furaker 1991, Hagen 1991, Rein 1985, Draper 1998). Since such public services encompass mostly "female-typed" occupations, the expansion of public employment is associated with greater gender occupational segregation (Esping-Andersen 1990, Alestalo, Bislev and Furaker 1991, Charles 1992).

Studies carried out within the feminist framework further argued that this process not only reproduces gender occupational segregation but actually widen gender occupational inequalities and strengthen the traditional division of labor between men and women (Hernes 1987, Langan and Oster 1991, O'Connor 1993, Hansen 1995, 1997). Hernes (1987:125), for example, describes this process "as the family's 'going public'" and suggests that "in terms of numbers women now dominate the public sector, and they have practically monopoly on all service work in the public and private sectors". And O'Connor further articulates this argument when suggesting that in welfare states "high levels of participation may mask some

serious problems, namely, a very high level of part time work and highly gender segregated labour force" (O'Connor 1993: 507).

In order to test the hypothesis that developed welfare-policies are positively associated with gender occupational segregation we computed for each country three measure of gender occupational segregation. The first measure is the net odds for women (relative to men) to be employed in a female-typed occupation (hereafter FEM-OCC). The second measure is the net odds of men (relative to women) to work in a male-typed occupation (hereafter MAL-OCC). The third is the net odds of men (relative to women) to attain a managerial occupational position (hereafter MANAG).[3] Each of these three measures was estimated for each country through a series of logistic regression equations predicting odds for employment in an occupational category (i.e. female-typed, male-typed, managers) as a function of gender, marital status, age, education, and presence of pre-school children. The estimated coefficient for gender in each equation represents the relative odds of the two gender groups to be employed in an occupational category, net of all other variables included in the equation. Whereas the first two indicators pertain to nominal gender segregation, the third one captures gender inequality in access to high status and lucrative occupations.

The detailed distributions of the alternative measures of gender occupational segregation (FEM-OCC, MAL-OCC) and gender occupational inequality (MANAG) are listed in columns 3, 4 and 5 of Table 2. The data reveal high levels of gender occupational segregation across countries. In an average country the odds of women to be employed in a female typed occupation are 13 times higher than men with similar socio-demographic characteristics and the average odds for men to be employed in a male-typed occupation is 13.5 times higher than women. There is, however, variation around these means. Gender

occupational segregation is highest in Hungary, Denmark, Sweden and Britain and lowest in Belgium, and the US.

Occupational inequality in access to managerial occupations is also considerable. In an average country men's odds to work in a managerial occupation are 2.5 times higher than women's. The relative odds are close to unity in the US, Canada and Switzerland and reach values higher than 4 in Denmark and Belgium. Whereas in countries such as the US and Canada men and women have equal odds to attain managerial positions, in Belgium and Denmark the odds favoring men over women for employment in managerial occupations are rather high.

Insert Figures 2a, 2b, 2c About Here

The relations between the indicators of gender-occupational segregation and the index for welfare policy are presented in Figure 2 (Figures 2a and 2b pertain, respectively, to FEM-OCC and MAL-OCC, and Figure 2c pertains to MANAG). In general the data displayed by Figure 2a and 2b support the theoretical expectation that gender segregation is more pronounced in places characterized by developed welfare policies. The correlation between WPI and the likelihood for women to be segregated in female type occupations is r = .485 and the correlation between WPI and men's likelihood for employment in male-typed occupations is r = .400. However, the data in Figure 2c provide even stronger support to the hypothesis that gender occupational inequality is more pronounced where the family policy is more prevalent. The correlation between PWI and MANAG is positive, substantial and highly significant (r = .625). We must conclude, therefore, that prevalence of welfare policies not

only channels men and women to gender-typed occupations but also increases gender occupational inequality by disproportionately allocating women into non-managerial semi-professional occupations and men into the lucrative, prestigious, and high-status managerial occupations.

Welfare Policies and Earnings Inequality

Comparative studies of gender earnings inequality have repeatedly revealed that in all countries men earn more than women. However, they also revealed some variation among countries. In some countries the earnings disparities are considerably higher than in others. For example, in welfare-state countries such as Sweden, Finland and Denmark the wage-gaps between men and women are lower than in market oriented economies such as the US and Canada (Rosenfeld and Kalleberg 1990, 1991, Blau and Kahn 1995, Gornick 1999). The data displayed in column 6 of Table 2 reveal findings similar to those reported in previous studies. In all countries average earnings of men are higher than that of women; in an average country the earning- ratio of women to men is .68 (s.d. = .09). The earnings gaps are least pronounced in Italy, Finland, Slovakia and Denmark and most pronounced in Switzerland, Netherlands and the UK.

Researchers usually attributed the differences among countries to institutional mechanisms such as corporatism, the power of labor, economic organization of the labor market, and the wage structure (Bellace 1991, Whitehouse 1992, Katz 1993, Blau and Kahn 1995, Rubery 1995, DiPrete and McManus 1996, Fortin and Lemieux 1997, Rubery, Bettio, Fagan, and Maier 1997, Almond and Rubery 1998). Although structural attributes such as high level of corporatism, powerful unions, and centralized pay system are associated with both low levels of

income inequality and welfare state regimes, surprisingly no one has yet examined the net impact of welfare and family oriented policies on gender earnings inequality.

To examine the proposition that gender-earnings inequality tends to be less pronounced in places characterized by developed welfare policies, we estimated (see Figure 3) the relations between WPI and the earnings-ratio of women to men. The findings revealed by the analysis lend support to this proposition. The correlation between WPI and the earnings ratio between men and women is r=.427, indicating that earning differentials between men and women tend to be smaller in countries with developed welfare policies than in others.

Insert Figure 3 About Here

Although the finding presented by Figure 3 seems to support the proposition that prevalence of welfare policy is likely to decrease gender earnings inequality, we believe that a more careful and systematic analysis is required before reaching a conclusion. In effect, when considering the impact of welfare policies on both female labor force participation and on occupational segregation it is possible that welfare-policies increase, rather than decrease, earnings gaps between men and women. We contend that increased participation facilitated by availability of public services brings into the labor market more women, especially mothers to young children that otherwise would have stayed at home. These women differ from other economically active women, in their skills, qualifications, wage reservation, and commitment to economic activity. They are often viewed as 'secondary workers' – "women with little or no working commitment—who crowd into the unskilled female-dominated occupations" (Hansen 1995:3; see also Hansen 1997; Hakim 1991, 1997). Due to such a selection bias coupled with

overcrowding of women in low-paying occupations, we expect earnings inequality between men and women to be higher, rather than to lower, in places characterized by progressive welfare policy.

Furthermore, researchers of causes and consequences of gender economic discrimination argued that in a welfare state regime where women are 'protected' by regulations and legislations, employers are reluctant to hire women to high status and lucrative positions and to promote them. That is, they are likely to practice economic discrimination against women along the logic embodied in the 'statistical discrimination model' (Asplund 1998, Hemstrom 1998, Longva and Strom 1998, Naur and Smith 1998). This argument was clearly articulated by Hemstom (1998:162) in the case of Sweden:

> "Firms do not know in advance whether their employees will have children, and if so whether the employees themselves will take on the job of parenting. What they do know, however, is that their female employees are statistically more likely than their male counterparts to go on parental leave, work part time and be absent due to childrearing responsibilities after given birth. This produces incentives to treat male and female employees differently."

To systematically examine whether and to what extent prevalence of welfare policies in a social system affects gender earnings inequality we estimated a series of hierarchical linear models (HLM) that include both individual and country level variables (Bryk and Raudenbush, 1992). Multi-level models, unlike models based on aggregate-ecological analyses, enable to estimate more accurately contextual variables effects (i.e. country effect) while controlling for variations in individual-level characteristics. The individual-level variables included in the models presented here are gender, age, marital status, education, and presence of pre-school children. The country-level variables are the welfare policy index

(WPI), rate of female labor force participation, and the indicators of gender occupational segregation (FEM-OCC, MAL-OCC, MANAG). These variables are used to predict log of annual earnings. We allow both the intercept and the gender effect to vary between countries (i.e. random effects) whereas all other individual-level variables were constrained to be the same across countries (i.e. fixed effects). The interaction between gender and WPI represents the effect of welfare policy on earnings differential between men and women.[4] The results of the multi-level regression analysis are presented in Table 3. In equation 1 only WPI is introduced at the country level. In equations 2 through 5 we introduce rate of participation and indicators of gender occupational segregation, measured at the country-level, as controls.

Insert Table 3 About Here

The findings revealed by the analysis are consistent in all equations and lead to similar conclusions. Net of all variables included in the analysis, in all equations men earn more than women, and net earnings are likely to increase with age and academic degree and to decrease with presence of pre-school children in the household. The effect of WPI on gender inequality is negative and significant in all equations, indicating that, other things being equal, the prevalence of welfare policy is likely to decrease earnings disparities between economically active men and women. It is interesting to note that the effect of WPI remains negative and highly significant even when rate of female labor force participation and gender occupational segregation are introduced (in equations 2 to 5) as control variables. Neither rate of female labor force participation nor the measures of gender occupational segregation exerts

significant effect on gender earnings differentials. The results appear to support the argument that progressive welfare policy is likely to decrease the gender wage gap.

Earnings distributions and wage structures, however, differ from one social system to another; in some countries earnings and wages are more equally distributed among individuals than in others (Blau and Kahn 1995, Gottschalk 1997, Gottschalk and Smeeding 1997, Korzeneniewicz and Moran 1997). What these earnings distributions indicate is the structure of inequality or the shape of the stratification system. Blau (1998) and Blau and Kahn (1995, 2001) have discussed the importance of the wage structure for understanding gender earnings inequality. They contend that in countries in which income is more equally distributed (or wage structure is more compressed) gender inequality is less pronounced than in countries where earnings are less equally distributed.

Since earnings inequality is more pronounced in market economies such as the US and Canada than in welfare regimes such as Finland and Denmark, it is important to re-examine the relations between welfare policy and gender earning inequality observed in Table 3 while controlling for the structure of the earnings distribution. In Table 4, thus, we examine the impact of welfare policy on gender earnings inequality on standardized earnings distributions. That is, we control for the shape of the earnings distributions across countries by transforming them into percentile distributions. Such a transformation procedure yields standardized earnings distributions for all countries, eliminating differences resulting from different structures of inequality or different shapes of stratification systems.

Once again, a series of five regression equations were estimated using hierarchical linear models (HLM). The models were specified exactly as in Table 3. In equation 1 we let earnings (expressed in percentiles) be a function of all individual-level variables plus WPI at

the country-level. In equations 2 to 5 both rate of female labor force participation and the measures of gender segregation are added to the models as country-level control variables. The results of the analysis are presented in Table 4.

Insert Table 4 About Here

The effects of the individual-level variables on the standardized earnings distributions hardly differ from those observed previously in Table 3. However, the impact of the country-level welfare policy index – WPI – on gender earnings differential is substantially altered when the shape of the earnings distribution is statistically controlled. More specifically, the effect of WPI becomes statistically insignificant in equation 1, and it remains statistically insignificant, in equations 2 and 3, when rate of female labor force participation and segregation into female-typed occupations are introduced as additional controls. What has previously appeared to be an association between the prevalence of welfare policy and gender earnings inequality appears to be a spurious consequence of the association of both to the shape of the earnings distribution. That is, when controlling for variations in the structure of earnings inequality across markets, we find that gender earnings differentials are not associated with the prevalence of welfare policies.

However, when gender occupational inequality resulting from differential access of the two genders to either male type occupations (equation 4) or to managerial occupations (equation 5) is taken into account, welfare policies become significantly associated with gender earnings inequality. Specifically, the effect of WPI on gender earnings differentials becomes negative and highly significant in equations 4 and 5, which include MAL-OCC and

MANAG, respectively, as control variables at the country-level. Apparently, only when considering women's occupational disadvantage (or men's occupational advantage) associated with either male-typed occupations or managerial occupations, the gender earnings differential actually declines with the prevalence of welfare policies. In other words, in order to fully understand the effect of progressive welfare policies on gender earnings inequality, one has to consider first the detrimental effect that such policies have on occupational attainment of women.

Conclusions and Discussion

The major objective of the present research was to provide a systematic examination of the direct and indirect effects of welfare policies on earnings differentials between men and women. We suggest that the scope and prevalence of welfare policy should be viewed as a structural characteristic of the social system, which affects in turn, patterns of gender-based socioeconomic inequality. While utilizing data from twenty industrialized countries we found considerable support to this expectation. We also found that the impact of welfare policies on gender inequality is rather complex, and varies from one aspect of economic activity to another (i.e. labor force participation, occupational segregation, earnings). It could be best understood and delineated, therefore, only when the inter-relations among all these aspects of women's economic activity are simultaneously considered.

Consistent with theoretical expectations and with previous studies on the issue the data show that women's rate of labor force participation tends to rise in places characterized by progressive welfare policies and well-developed public services. Apparently, expansion of family oriented services, availability of public-care facilities, and a large welfare sector

provide women with better opportunities to join the economically active labor force. However, the prevalence of welfare policy is also associated with higher rates of gender-linked occupational segregation and with greater gender occupational inequality. In countries characterized by a progressive welfare system women are disproportionately relegated into female-dominated occupations and away from male-dominated occupations, especially from managerial positions. Indeed, at the same time that the expansion of welfare services enables more women to join the economically active labor force, it also widens occupational segregation and occupational inequality between men and women. These findings can be attributed to either one of the following three alternative explanations. First, the rise of the welfare-state regime and the expansion of public services are associated mostly with increased opportunities in female-dominated occupations. Second, the "protection" provided by welfare policies coupled with the kind of jobs available in welfare systems bring into the labor force women that otherwise would have stayed at home; these women are “less selective” and have lower “occupational and wage reservation” than other economically active women. Third, because of the protection provided to women by welfare policies and regulations more employers are reluctant to hire women to high-status lucrative positions and to promote them. That is, more employers are likely to practice "statistical discrimination' against women in hiring and promoting them.

The data analysis reveals that when earnings are measured in monetary terms, the earnings differentials between men and women tend to be smaller in countries characterized by a progressive welfare policy and by a well-developed welfare system. This finding supports the thesis that prevalence of welfare policies serves to narrow earnings inequality in general and gender earnings inequality in particular. This finding holds even when taking into

consideration differential rates of female labor force participation and differential rates of gender occupational inequality associated with the prevalence of welfare policy.

However, when controlling for the shape of the earnings distributions across countries, the prevalence of welfare policies does not exert a direct effect on gender earnings inequality. That is, when considering the fact that earnings distributions are more compressed (or shape of the stratification system is more egalitarian) in welfare-state regimes than in other systems, the prevalence of welfare policies is not significantly associated with the size of the earnings gap between men and women. What seems to be a negative relation between the prevalence of welfare policy and gender earnings inequality appears to be a spurious consequence of the association of both to the shape of the earnings distribution. Yet, when taking into account patterns of occupational segregation, especially the higher rates of gender occupational inequality associated with rise of welfare systems, the prevalence of welfare policy is found to decrease, in effect, earnings disparities between men and women. Indeed, the data presented by this paper strongly suggest that progressive welfare-policies and the availability of welfare public services should be viewed as a characteristic of the social system which has significant consequences for socioeconomic inequality between men and women.

Endnotes

1. Female-typed occupations as well as male typed occupations were defined by performing tests for statistical difference between proportions (of men and women) in each detailed occupational category at the 2-digit occupational classification, within each country. Occupations in which the proportion of women and men are statistically different ($P<.01$) are considered either male-typed or female-typed. The managerial category includes all detailed occupations that were defined "managerial occupations".

2. The factor loading used in the computation of the first-principal component for the index construction are expressed as follows: WPI = .825 x MATERNITY + .712 x CHILD CARE + .854 x PUBLIC SERVIC (variance explained 63.9%).

3. For the purpose of comparability we utilized 2-digit occupational classification schemes. Countries that provided information only in major (1-digit) occupational categories were excluded from the analysis. As a result, we have data for male and female typed occupations for only 14 countries and data on managerial occupation for 17 countries.

4. The two-level model can be represented by a set of equations, as illustrated below**:**

$$(1)\ (\text{Earnings})\ ij = \beta_{0j} + \beta_{1j}\ (\text{Gender})ij + \mathbf{\beta X} + \varepsilon ij$$

The dependent variable is the annual earnings of individual i in country j; 'Gender' denotes the 'Gender effect' (i.e. earning gap between man and women), coded as 0 for male, and 1 for female. **X** is the vector of the other individual measures (i.e., marital status, education, age, and presence of young child), and **β** is the vector of their

coefficients. This equation allows the intercept, β_{0j}, and the gender effect, $\beta_{1j,}$ to vary between countries (i.e., to be random), whereas the other variables effects were constrained to be the same across countries (i.e., to be fixed). To explain these random effects, β_{0j} and β_{1j} serve as dependent variables in equations (2) and (3):

$$(2)\ \beta_{0j} = \gamma_{oo} + \gamma\mathbf{X} + \nu oj$$

$$(3)\ \beta_{1}j = \gamma_{1o} + \gamma\mathbf{X} + \nu_{1}j$$

Equation (3) is of our main interest. In this equation measure of welfare policy (WPI) (plus measures of gender segregation and rate of female labor force participation) are introduced to explain variation in the gender effect – the average earnings gap between man and women -- across countries (i.e., effects on the gender slope). γ represent the vector of the coefficients associated with these measures (**X**). For a mathematical reasons we add these contextual measures to explain the intercept (i.e. the countries variation in the average earnings) (Equation 2).

References

Alestalo M., Bislev S. and Furaker B. 1991."Welfare State Employment in Scandinavia". Pp. 36-58 in *The Welfare State as Employer,* edited by J.E. Kolberg. London, NY.: M E Sharpe Inc.

Almond P. and Rubery J. 1998. "The Gender Impact of Recent European: Trends in Wage Determination." *Work, Employment and Society* 12(4): 675-693.

Asplund R. 1998. "The Gender Wage Gap in Finnish Industry 1980-1994." Pp. 190-209 in: *Women's Work and Wages,* edited by Persson I. and Jonung C. London and New-York: Routledge.

Bellace J. R. 1991. "The Role of the Law in Effecting Gender Pay Equity: A Comparison of Six Countries' Experience," in *International Review of Comparative Public Policy. A Research Annual: "Women's Wages: Stability and Change in Six Industrialized Countries",* Vol 3: 21- 37, edited by S.L. Willborn (ed.).

Blau F. D. 1998. "The Gender Pay Gap". Pp. 15-35 in: *Women's Work and Wages,* edited by Persson I. and Jonung C. London and New-York: Routledge.

Blau F. D. and Kahn L. M., 1995, "The Gender Earning Gap, Some International Evidence," in: *Differences and Changes in Wage Streetcars*, edited by Freeman R.B. and Katz L. F. The University of Chicago Press.

Blau F. D. and Kahn L. M., 2001, "Understanding International Differences in the Gender Pay Gap", Working Paper 8200, National Bureau of Economic Research, Cambridge.

Bryk A. S. and Raudenbush S. W. 1992. *Hierarchical Linear Models: Applications and Data Analysis Methods*. Newbury Park, CA: Sage.

Charles M., 1992, "Cross National Variation in Occupational Sex Segregation", *American Sociological Review* 57(8): 483-502.

Cusack T.R., Notermans T. and Rein M. 1989. "Political-Economic Aspects of Employment". *European Journal of Political Research* 17: 471-500.

Daly, Mary. 2000. "A Fine Balance: Women's Labor Market Participation in International Comparison." Pp. 467-510 in *Welfare and Work in the Open Economy,* edited by F. W. Scharpf and V. A. Schmidt. Oxford, New York: Oxford University Press.

DiPrete T. A., and McManus P. A., 1996. "Institutional, Technical Change, and Diverging Life Chances: Earnings Mobility in the United States and Germany. *AJS* 102(1): 43-79.

Draper A. 1998. "Civil Servant Socialism", Unpublished Manuscript.

Esping-Andersen G. 1990. *The Three World of Welfare Capitalism*. Princeton, New Jersey: Princeton University Press.

Esping-Andersen G, 1999. *Social Foundations of Postindustrial Economies*, Oxford University Press.

Fortin N.M. and Lemieux T., 1997. "Institutional Changes and Rising Wage Inequality: Is There a Linkage?" *The Journal of Economic Perspectives* 11(2): 75-97.

Gornick J. C. 1999, "Gender Equality in the Labour Market: Women's Employment and Earnings." Pp.210-242 in *Gender and Welfare State Regimes*, edited by D. Sunsbury. Oxford, U.K.: Oxford University Press.

Gornick J. C., Meyers M. K., and Ross K. E. 1997. "Supporting the Employment of Mothers: Policy Variation Across Fourteen Welfare States." *Journal of European Social Policy* 7(1): 45-70.

Gornick J. C, Mayers M.K. and Roos K. E., 1998. "Public Policies and the Employment of Mothers: A Cross-National Study." *Social Science Quarterly* 79(1): 35-54.

Gottschalk P. 1997. "Inequality, Income Growth and Mobility: The Basic Facts." *The Journal of Economic Perspective* 11(2): 21-41.

Gottshalk P. and Smeeding T.M., 1997. "Cross-National Comparisons of Earnings and Income Inequality", *Journal of Economic Literature* 35: 633-687

Jacobs J.A. and Lim S.T., 1995. *Trends in Occupational and Industrial Sex Segregation in 56 countries, 1960-1980, Gender Inequality at Work*. Sage Publication.

Hagen K. 1991. "Welfare State Employees: Where Did They Come From?". Pp. 59-90 in *The Welfare State as Employer,* edited by Kolberg J. E. London, NY.: M E Sharpe, Inc.

Hakim C. 1991. "Grateful Slaves and Self-Made Women: Fact and Fantasy in Women's Work Orientations". *European Sociological Review* 7(2): 101-121.

Hakim C. 1997. *Key Issues in Women's Work*. London: Athlone.

Hansen. M. N. 1995. "The Vicious Circle of the Welfare State? Women's Labor Market Situation in Norway and Great Britain". *Comparative Social Research* 15: 1-34.

Hansen M.N. 1997. "The Scandinavian Welfare State Model: The Impact of the Public Sector on Segregation and Gender Equality". *Work Employment and Society* 11(1): 83-99.

Hemstrom M. 1998. "Gender Differences in Pay Among Young Professional in Sweden". pp. 145-169 in *Women's Work and Wages,* edited by Persson I. and Jonung C. London and New-York: Routledge.

Hernes H. M. 1987. *Welfare State and Women Power: Essays in State Feminism*. Norwegian University Press.

Huber Evelyne, John D. Stephens, David Bradly, Stepanie Moller and Francois Nielsen. 2001. "The Welfare State and Gender Equality". Paper presented for delivery at the meeting of research committee 19 of the international sociological association (poverty, social welfare and social policy).

Katz H. 1993. "The Centralization of Collective Bargaining: A Literature Review and Comparative Analysis". *ILRR* 47(1): 3-22.

Kolberg J. E. and Esping-Andersen G., 1991. "Welfare States and Employment Regimes?" Pp. 3-33 in *The Welfare State as Employer,* edited by Kolberg J. E. London, NY.: M E Sharpe, Inc.

Kolberg J.A. 1991. "The Gender Dimension of the Welfare State". *International Journal of Sociology* 21: 119-148.

Korpi, Walter. 2000. "Faces of Inequality: Gender, Class, and Patterns of Inequalities in Different Types of Welfare States." *Social Politics* 7(2):127-91.

Korzeneniewicz R.P., and Moran T.P., 1997, "World-economic Trends in the Distribution of Income, 1965-1992." *American Journal of Sociology* 102(4): 1000-1030.

Langan M. and Ostner I. 1991, "Gender and Welfare: Toward a Comparative Framework. Pp. 127-150 in *Toward a European Welfare State?* edited by G Room. Bristol, UK.

Longva P. and Strom S. 1998. "Wage Differentials and Gender in Norway". Pp. 173-189 in *Women's Work and Wages,* edited by Persson I. and Jonung C. London and New-York: Routledge.

Naur M. Smith N. 1998. "Cohort Effects on the Gender Wage Gap in Denemark". Pp. 122-143 in: *Women's Work and Wages,* edited by Persson I. and Jonung C. London and New-York: Routledge.

O'Connor J. S. 1993. "Gender, Class and Citizenship in the Comparative Analysis of Welfare State Regimes: Theoretical and Methodological Issues". *British Journal of Sociology* 44: 501-518.

OECD, 1987, *Employment Outlook*: "Recent Labour Market Trends". pp. 17-42.

Orloff Ann Shola. 2002. "Women's Employment and Welfare Regimes Globalization, Export Orientation and Social Policy in Europe and North America". *Social Policy and Development.* Program Paper Number 12, United Nation Research Institute for Social Development: 1-49.

Rein M. 1985. "Women, Employment and Social Welfare". Pp. 37-57 in *The Future of Welfare,* edited by R. Klein and M. O'Higgings. Basil Blackwell.

Rose R. 1985. *Public Employment in Western Nation*. Cambridge University Press.

Rosenfeld R.A., and Kalleberg A.L., 1990, "A Cross-National Comparison of the Gender Gap in Income". *American Journal of Sociology* 96(1): 69-106.

Rosenfeld R.A., and Kalleberg A.L., 1991, "Gender Inequality in the Labor Market, A Cross-National Perspective". *Acta Sociologica* 34: 207-225.

Rubery J. 1995. "Performance-Related Pay and the Prospects for Gender Pay Equity". *Journal of Management Studies* 32: 637-654.

Rubery J., Bettio F., Fagan C., Maier F., Quack S., and Villa P. 1997. "Payment Structures and Gender Pay Differentials: Some Societal Effects". *The International Journal of Human Resource Management* 8(3): 131-149.

Semyonov M., 1980, "The Social Context of Women's Labor Force Participation: A Comparative Analysis", *American Journal of Sociology* 86: 534-550.

Stier H. Lewin-Epstein N. and Braun M. 2001. "Welfare Regimes, Family-Supportive Policies, and Women's Employment Along the Life-Course". *American Journal of Sociology* 106 (6): 1731-60.

Treiman D.J., and Roos P.A., 1983, "Sex and Earning in Industrial Society: A Nine-Nation Comparison", *American Journal of Sociology* 89: 612-650.

Whitehouse G., 1992, "Legislation and Labour Market Gender Inequality: An Analysis of OECD Country", *Work Employment and Society* 6(1): 65-86.

Table 1: The Welfare Policy Index, and its Three Components, in a Descending Order

	Index of Welfare Policy[1]	Maternity Leave (numbers of fully paid weeks)[2]	Percent Children (0-6) in Publicly Funded Child Care[7]	Public Welfare Sector, as Share of Total (Percent)[12]
Sweden	100	41	56	25
Denmark	93	28	65	25
Norway	72	42	30	20
Finland	57	32	35	16[13]
Israel	57	12[3]	57[8]	18[14,15]
Belgium	51	12	63	13[14,16]
France	50	16	61	11
Hungary	50	24	48	12[14, 16]
Spain	44	16	45	14[14,17]
Italy	41	17	52	11
Slovak Republic	34	25[4]	44	5
Luxembourg	31	16	35	11[14, 18]
Czech Republic	30	19	47[9]	5[14, 18]
UK	27	8[5]	28	16
Netherlands	27	16	39	8
Germany	20	14	35	7
Canada	10	8	29[10]	7
USA	4	0	30[10]	8
Australia	3	0	23[10]	10
Switzerland	0	8[6]	16[11]	7
Average	40	18.5	41.6	12.4
S.D.	27.6	12.6	14.0	6.0
Range	0-100	0-42	16-65	5-25
N	20	20	20	20

1. The Index's values were transformed from standardized values into a scale of 0-100 ranges.
2. Kamerman S.B. 2000, "Early Child Education and Care (ECEC): An Overview of Development In the OECD. Countries" (www//childcareorg). (Data refer to 1995/6).
3. National Insurance Institute of Israel, Annual Survey, 1995-96. (Data refer to 1995).
4. OECD Employment Outlook, 2001, "Balancing Work and Family Life: Helping Parents into Paid Employment" Years 1999-2001. (Data refer to 1999).
5. Gauthier A. H. 2000, "Public Policies Affecting Fertility and Families in Europe: A Survey of the 15 Member States" (Data refer to 1990).
6. International Labour Organization, 1998. (http://usilorg/news/prsrls/maternityhtml.) (Data refer to 1998).
7. Gauthier A. H. 1999, "Historical Trends in State Support for Families in Europe (post-1945)". Children and Youth Service Review, vol. 21 (11/12), pp.937-965. (Data refer to 1993, except Norway and Germany (1988), Slovak and Czech Republics (1998)).
8. Statistical Abstract of Israel, 1996, no. 47 (Data refer to children age 3-6, years 1993/4). For age 0-2, data from NA'AMAT and VIZO, year 2001.
9. Data for children age 0-3 were obtained from: The Ministry of Education, Youth, and Sports of the Czech Republic, 2000, "OECD-Thematic Review of Early Childhood Education and Care Policy, Background Report for the Czech Republic" (data refer to 1994).
10. Mayers M.K. and Gornick J.C. 2000, "Early Child Education and Care (ECEC): Cross National Variation in Service Organization and Financing" (www//childpolicyorg).
11. Buhmann Brigitte. 2001, "Fait et Chiffres sur la Prise en Charge Externe des Enfants" Questions au Féminin Office Fédéral de la Statistique, Suisse.
12. In most of the countries the data obtain from the following source: Kolberg J. E. and Esping-Andersen G., 1991 "Welfare States and Employment Regimes?" In: Kolberg J. E. (ed) "The Welfare State as Employer" M. E. Sharpe, Inc London, NY P 3-33.
13. Finland, labor force survey, 1999, Central Bureau of Statistics.

Data for the remaining countries is estimation, based upon two different sources.

14. Year Book of Labour Statistics 1995 Table 3B.
15. Israel, labor force survey 1991/2/3, Central Bureau of Statistics.
16. OECD Economic Surveys 1998-99, France.
17. OECD Economic Surveys 1993, Finland.
18. OECD Economic Surveys 2000, Korea.

Table 2: Indicators of Female Labor Force Participation, Gender Occupational Segregation and Female to Male Earnings Ratio, in 20 Countries

Country	(1) Rate of female labor force participation	(2) Rate of mothers (to pre-school child) labor force participation	(3) Net odds to be employed in female-type occupation (female=1)	(4) Net odds to be employed in male-type occupation (male=1)	(5) Net odds to be employed in managerial occupation (male=1)	(6) Female to male earnings ratio
Sweden	.85	.85	13.8	16.9	--	.63
Denmark	.76	.77	17.7	16.7	4.36	.76
Norway	.76	.72	--	--	--	.70
Finland	.79	.66	12.7	11.6	2.73	.62
Israel	.63	.55	--	--	3.14	.77
Belgium	.57	.67	--	--	5.05	.71
France	.66	.62	12.2	10.4	3.41	.73
Hungary	.54	.41	23.6	18.1	1.41	.75
Spain	.34	.35	10.1	11.8	.94 (4.68)[2]	.77
Italy	.54	.49	--	--	2.23	.76
Slovak Republic	.62	.49	13.5	16.7	3.81	.79
Luxembourg	.45	.41	--	--	--	.71
Czech Republic	.76	.60	8.8	11.6	2.50	.71
UK	.68	.54	17.8	16.8	2.17	.50
Netherlands	.58	.51	13.3	9.4	3.34	.52
Germany	.68	.65	12.0	14.0	2.02	.65
Canada	.68	.64	10.0	11.5	1.27	.61
USA	.72	.63	8.5	7.2	1.06	.65
Australia	.62	.45	--	--	2.27	.67
Switzerland	.43	.28	8.2	16.4	.45 (1.34)[2]	.52
Average	63.1	56.4	13.0	13.5	2.5	0.68
S.D.	13.0	14.4	4.3	3.4	1.3	.09
Range	34-85	28-85	23.6 –6.7	18.1 –6.4	.45 – 5.1	.50 –. 79
N	20	20	14	14	17	20
Pearson Correlation with WPI	.403	.602	.400	.485	.625	.427

-- Not available (for details see endnote 3).

1. Age 25-60. Source: LIS (1990-1997).

2. To ensure that the odds of employment in a managerial occupation are not influenced by different occupational definitions between countries, we employed the same logistics regressions when "managerial occupation", not only labeled as a "managerial occupation", but also found to be among highest paid occupations (top three occupational wage deciles). In all countries except Spain and Switzerland the odds ratio were almost identical to the ratios when "managerial occupations" were defined only by labeling. The values for Spain and Switzerland under the more restrictive definition are provided in parentheses.

Table 3: The Effect of Human Capital, Demographic Attributes, and Country Level Variables on Natural Log of Annual Earnings (P values in Parenthesis): Results of Hierarchical Linear Regression Models[1].

Individual level effects:	(1)	(2)	(3)	(4)	(5)
			Natural Log of Annual Earnings		
Intercept	9.161***	11.11***	11.906***	16.533***	9.901***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Married	0.041***	0.041***	0.035***	0.035***	0.043***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Education	0.423***	0.423***	0.452***	0.452***	0.425***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age	0.004***	0.004***	0.004***	0.004***	0.004***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Pre-school child	-0.036***	-0.036***	-0.048***	-0.048***	-0.025***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Gender	0.594***	0.576***	0.674**	0.272	0.683***
	(0.00)	(0.00)	(0.03)	(0.24)	(0.00)
Country level effect: on the intercept					
Welfare Policy Index	0.030**	-0.044**	-0.054**	-0.071***	-0.0056**
	(0.03)	(0.01)	(0.02)	(0.00)	(0.01)
Female labor force participation		-4.444	-4.545	-8.172**	-0.852
		(0.12)	(0.16)	(0.03)	(0.427)
Segregation: female-type occupation (female=1)			-0.097		
			(0.25)		
Segregation: male-type occupation (male=1)				-0.336**	
				(0.01)	
Segregation: managerial occupation (male=1)					-0.534
					(0.163)
Country level effect: on gender inequality					
Welfare Policy Index	**-0.0038*** **	**-0.0040** **	**-0.0038***	**-0.0057** **	**-0.0054** **
	(0.00)	**(0.02)**	**(0.08)**	**(0.02)**	**(0.02)**
Female labor force participation		0.041	-0.021	0.272	-0.190
		(0.456)	(0.474)	(0.281)	(0.344)
Segregation: female-type occupation (female=1)			-0.004		
			(0.393)		
Segregation: male-type occupation (male=1)				0.20	
				(0.130)	
Segregation: managerial occupation (male=1)					0.026
					(0.318)
N (individual)	55,546	55,546	42,125	42,125	48,125
N (country)	20[2]	20[2]	15	15	17

*p<.10, **p<.05, ***p<.01

1. Age 25-60. Source: LIS (1990-1997).

2. Similar results were obtained when analysis was performed only with the countries included in models 3, 4, and 5.

Table 4: The Effect of Human Capital, Demographic Attributes, and Country Level Variables on Earnings Percentile (P values in Parenthesis) Results of Hierarchical Linear Regression Models [1].

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Individual level effects:	(1)	(2)	(3)	(4)	(5)
			Earnings Percentile		
Intercept	17.94***	18.35***	13.55**	26.50***	14.64***
	(0.00)	(0.00)	(0.04)	(0.00)	(0.00)
Married	3.61***	3.61***	3.42***	3.43***	3.58***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Education	22.04***	22.03***	23.64***	23.65***	22.61***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age	0.299***	0.299***	0.284***	0.284***	0.301***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Pre-school child	-1.22***	-1.22***	-1.90***	-1.90***	-1.16
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Gender	24.16***	21.28***	25.97**	3.96	25.90***
	(0.00)	(0.00)	(0.02)	(0.38)	(0.00)
Country level effect: on the intercept					
Welfare Policy Index	0.050	0.053	0.033	-0.100	0.123
	(0.13)	(0.21)	(0.29)	(0.11)	(0.31)
Female labor force participation		-0.945	2.69	-6.41	9.74
		(0.45)	(0.40)	(0.29)	(0.33)
Segregation: female-type occupation (female=1)			0.333		
			(0.16)		
Segregation: male-type occupation (male=1)				-0.479	
				(0.24)	
Segregation: managerial occupation (male=1)					-1.868
					(0.13)
Country level effect: on gender inequality					
Welfare Policy Index	**-0.064**	**-0.085**	**-0.069**	**-0.174****	**-0.199****
	(0.21)	**(0.19)**	**(0.24)**	**(0.02)**	**(0.01)**
Female labor force participation		6.597	2.938	19.012	-9.534
		(0.30)	(0.43)	(0.12)	(0.27)
Segregation: female-type occupation (female=1)			-0.241		
			(0.32)		
Segregation: male-type occupation (male=1)				1.067**	
				(0.03)	
Segregation: managerial occupation (male=1)					3.236**
					(0.04)
N (individual)	55,546	55,546	42,125	42,125	48,125
N (country)	20[2]	20[2]	15	15	17

*p<.10, **p<.05, ***p<.01

1. Age 25-60. Source: LIS (1990-1997).

2. Similar results were obtained when analysis was performed only with the countries included in models 3, 4, and 5.

Figure 1a: Rate of Female Labor Force Participation by Welfare Policy Index (N=20)

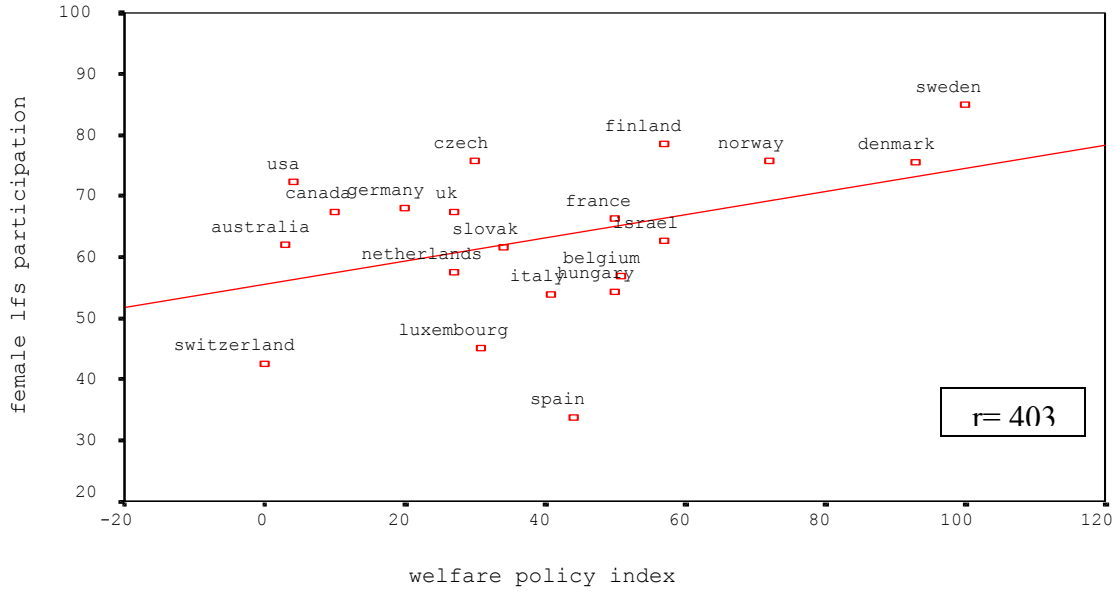

Figure 1b: Labor Force Participation Rate for Mothers to Pre-School Children by Welfare Policy Index (N=20)

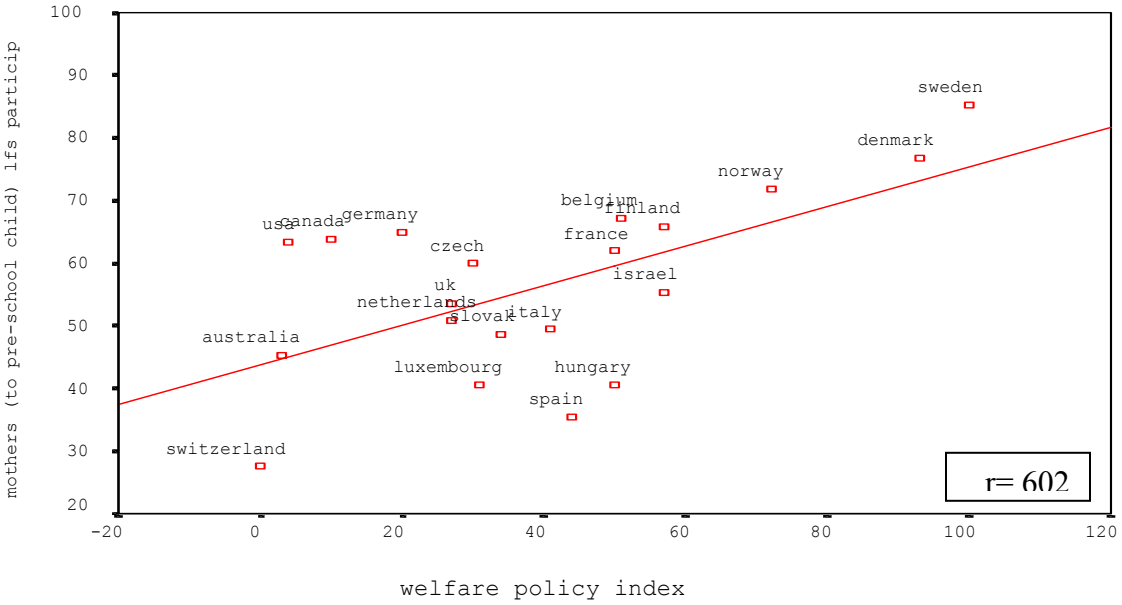

Figure 2a: Net Odds for Employment in Female-Type Occupations by Welfare Policy Index (N=15)

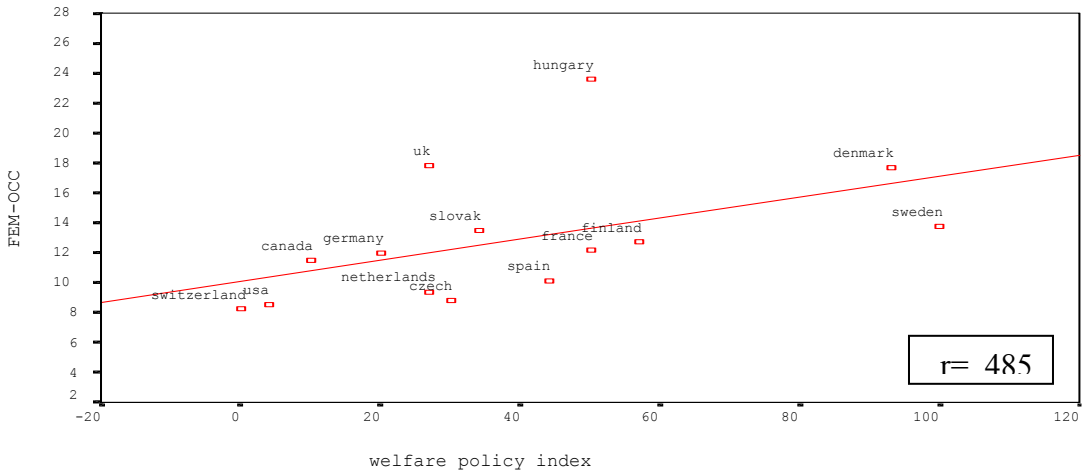

Figure 2b: Net Odds for Employment in Male-Type Occupations by Welfare Policy Index (N=15)

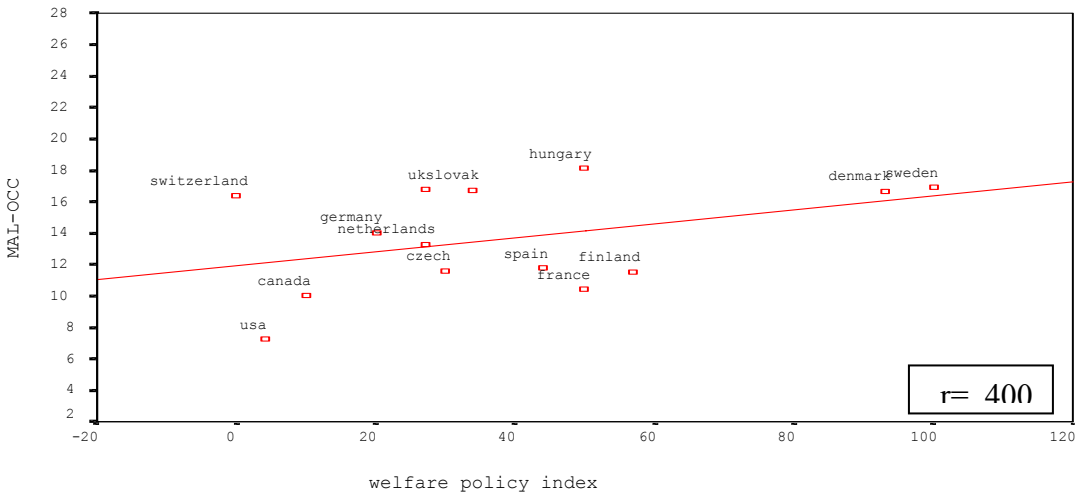

Figure 2c: Net Odds for Employment in Managerial Occupations by Welfare Policy Index (N=17)

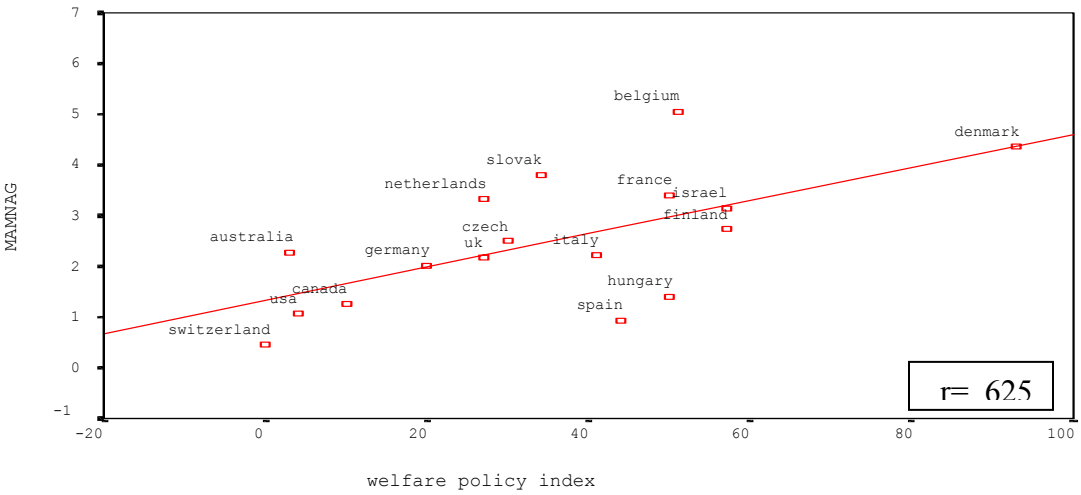

Figure 3: Female to Male Earnings Ratio by Welfare Policy Index (N=20)