

UNDERSTANDING GENDER INEQUALITY IN HOUSEHOLD LABOR

A. INTRODUCTION

This proposal details a plan for cross-national research to advance understanding of gender inequality in the household division of labor: 1) Moving beyond studies focused only on the *division* of household labor, the analyses model individual and country characteristics that are associated with housework *volume*, which determines how taxing or manageable housework is apt to be. 2) Theorizing men's domestic work as a practical response to the time pressures of women's employment *and* as a symbol of couple solidarity, the project compares individual and country level factors related to the division of housework hours *and* to the division of gender-typed tasks across countries. 3) To achieve a fuller accounting of household responsibilities, the project incorporates men's and women's *household management* activities in addition to physical housework. The proposed study is one component of a broader international collaboration of cross-national research addressing gender inequality and described next.

B. OBJECTIVES AND SIGNIFICANCE

Collaborative Project: This proposal requests support for the U.S. component of an ambitious collaborative research project, "Gender Inequality in Comparative Perspective" (formal acronym EQUALITY). EQUALITY was submitted to the European Science Foundation (ESF) in response to its call for research programs addressing "Cross-National and Multi-Level Analysis of Human Values, Institutions and Behaviour" (HumVIB). (This initiative is described in detail at <http://www.esf.org/activities/eurocores/programmes/humvib.html>).

The peer review panel approved EQUALITY on the basis of scientific merit, ranking it 3rd among the 14 full proposals invited after a preliminary round of outline submissions.

The HumIVB competition is a ESF-EUROCORES (European Collaborative Research) initiative. EUROCORES promotes high-quality collaborative research, networking and dissemination across national boundaries by targeting complex research topics at the European level and in a global context. Research funding is provided by national funding organizations in Europe and elsewhere. The Dutch, German, and Hungarian science foundations have agreed to fund the individual projects of their respective investigators. The current proposal seeks funding for the fourth individual project, the component by the American partner in the EQUALITY collaboration.

Responding to the pressing challenge of sustaining broad participation of men and women in societies, EQUALITY is an innovative cross-national research project that aims to increase understanding of the persistent gender inequality at different levels and in different spheres of life in Europe and the US. Whether we

consider women's representation in management, their engagement in voluntary organizations, their domestic responsibilities, or their poverty rates, there are patterned "gender gaps" between countries--for example, by welfare regime type (Esping-Anderson 1999). We lack sufficient knowledge about which institutional factors at the macro or meso level--cultural, economic, political--influence the lives of men and women and how they do so.

Therefore, the EQUALITY project aims a) to integrate sociological, demographic, and economic insights to increase understanding of the persistent inequality between men and women in Europe and the US; b) to investigate the different, sometimes contradictory, relation of societal context (e.g., culture, policy, economic indicators) with different dimensions of gender inequality (namely, labor force success, division of domestic responsibilities, poverty, civic and social engagement); c) to increase understanding of societal contexts in relation to individual-level gender inequality, with consideration of the direct, indirect, and interaction "effects" of institutions; d) to exploit cross-national data and multi-level modeling to increase understanding of gender in society; and e) to expand knowledge of conditions for achieving sustainable, equal participation of men and women in society.

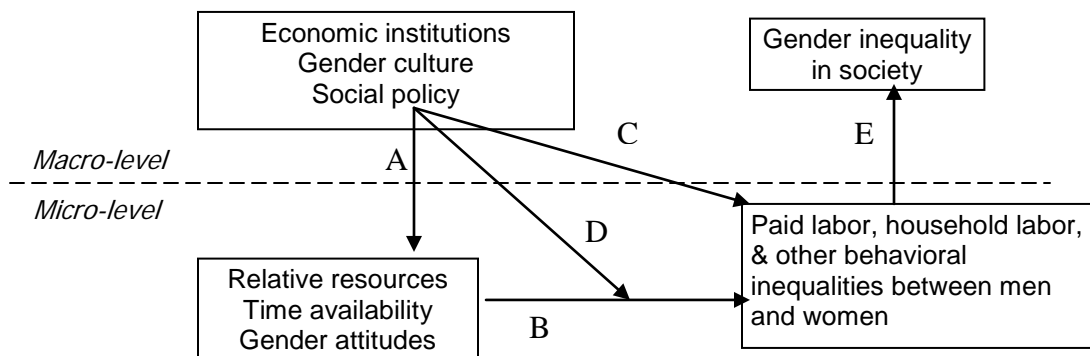
These aims are implemented through a collaboration of four prominent sociologists, each leading cross-national research to address a different aspect of gender inequality. The individual projects aim to answer the following questions:

- Labor market: Why are women *disadvantaged in the labour market*? Does this reflect gender differences in preferences or in constraints? What explains differences between countries and over time? (EQUALITY Program Leader *Tanja Van der Lippe*, Professor of Sociology of Households and Employment Relations at Utrecht University, The Netherlands).
- Poverty: How much do *poverty rates* differ between men and women over time and between countries? How can this be explained by the societal context? (*Eva Fodor*, Associate Professor at the Department of Gender Studies of the Central European University, Budapest, Hungary).
- Social Networks: Do men and women differ in their *embeddedness in social networks of family, neighbourhoods, and voluntary associations*? Can differences in network social capital explain gender differences in paid employment and informal care, and how do they affect individuals' quality of life? (*Sonja Drobnič*, Professor of Sociology and Co-Director of the Centre for Globalisation and Governance at the University of Hamburg, Germany).

- Household Labor: What explains cross-national gender differences in *household management responsibilities and domestic labor*? Do the same macro-level factors promote gender parity in housework hours and household tasks? Why is the domestic workload so much heavier in some countries than others? (*Judith Treas*, Professor of Sociology and Director of the Center for Demographic and Social Analysis at the University of California-Irvine, U.S.).

A shared theoretical framework unites the projects. As shown, it assumes that societal gender inequality is a product of gender inequalities in behavioral outcomes at the micro-level (arrow E). Macro-level institutional factors may have a direct influence on micro-level inequality (via C), they may influence them indirectly by way of, say

Figure 1



individual resources (A+B), or the impact of individual resources may vary with the scope of societal indicators (arrow D conditioning B). We start with a unidirectional arrow but acknowledge feminist theories which view inequality as an integrated system implying reciprocal causation between micro- and macro-levels.

The feasibility of this ambitious research program reflects the synergy of productive researchers with long-standing interests in gender inequality in comparative perspective. They bring different substantive expertise, familiarity with different (types of) countries, complementary experience with various data sets, and distinctive methodological specializations. They have prior records of successful collaboration with one another on research and training. Frequent teleconferencing and annual meetings permit necessary consultation with one another in order to enhance the quality of individual projects and integrate the components. For example, the investigators will share a consolidated dataset that they construct from macro-level indicators from large scale organizations

(UN and ILO), but also from individual data collection and analysis of diverse sources (country reports and documents, cross-national surveys). The project benefits from consultants whose expertise complements the investigators': Jerry Jacobs (Professor of Sociology, University of Pennsylvania); Jonathan Gershuny (Professor of Sociology, Oxford University & Director of the Multinational Time Use Archive); Karl Ulrich Mayer (Professor & Chair of Sociology & Director of the Center for Research on Inequalities and the Life Course, Yale University); Eric Widmer (Professor of Sociology, University of Geneva); Nevenka Cernigoj Sadar (Professor of Social Science, University of Ljubljana, Slovenia).

Individual Project: Understanding Gender Inequality in Household Labor

The significance of household labor for the equal and sustainable incorporation of men and women in society has been made clear by a growing body of evidence. Although women are spending more time in paid employment, there has not been a comparable increase in the time men spend in housework (Gershuny 2000)—an imbalance that has been called the “unfinished revolution” in gender equality (Hochschild 1989). Even wives who work full-time devote many more hours to housework than their husbands, particularly in the more tedious female-typed tasks (Blair and Lichter 1991; Dex 2004). Although gender specialization in the household was once regarded as efficient and functional (Becker 1981; Parsons 1954), its problematic aspects are evident in contemporary families (Treas In press). Within the home, the unequal division of domestic labor not only discourages childbearing, but also contributes to marital dissatisfaction (Cooke 2004; Torr and Short 2004). Unequal domestic arrangements pose an obstacle to the equal, sustainable participation of men and women in the broader society. Women’s disproportionate household responsibilities limit their paid work and depress their wage rates (Budig and England 2001; Hersch and Stratton 2002).

To further our understanding of domestic inequality, this project pursues three objectives.

- 1) To investigate cross-national patterns in the total, female, and male *volume of housework* in married and cohabiting unions, with particular emphasis on country-level conditions that are associated with higher or lower absolute domestic workload.
- 2) To test multi-level models of national economic, cultural, and policy influences on the division of household labor that theorize the *distinction between hours-based and gendered task-based measures* of male housework participation.
- 3) To extend the analysis of household labor to the allocation of *household management activities* and their implication for the division of housework in different country contexts.

C. THE STATE OF SCIENTIFIC KNOWLEDGE

There are two eras in empirical research on the division of household labor. The first sought to understand the labor allocation between partners in terms of the characteristics of the partners and their household. This research revealed that housework is more equally divided for those who are younger, cohabiting versus married, highly educated, and childless (Coltrane 1989). Non-traditional attitudes regarding gender roles, particularly for the male partner (Ross 1987), are associated with in a more equal division of household work (Bianchi et al. 2000; Blair and Lichter 1991; Brayfield 1992; Presser 1994). Valuing marriage highly, at least for wives, is linked with inequality, perhaps because of reluctance to make housework demands that put the marriage at risk. As “social exchange” and “time availability” arguments predict, women’s earnings and employment are positively associated with husbands’ domestic work, but husbands balk at housework when their wives earn more than they do—a result consistent with “gender display” theories (Bittman et al. 2003).

The second era of housework research dates to this decade. Exploiting newly available cross-national data and multi-level modeling techniques, researchers have launched a serious effort to place domestic arrangements in broader comparative context. Results indicate that a more egalitarian division of household labor is associated with societal gender equality (Fuwa 2004), less gender specialization (Treas In press), higher rates of cohabitation (Batalova and Cohen 2002), welfare regime type (Geist 2005), societal tolerance of divorce (Yodanis 2005), and policies promoting parental leave and employment access for women (Fuwa and Cohen 2007). My research points to both a historical legacy of high maternal employment and residential mobility as country-level predictors of male participation in housework. As well as identifying direct “effects” of macro-level, institutional characteristics on the division of household labor, some research reports an interaction between individual-level and country-level variables. E.g., Women’s full-time employment is a stronger predictor of men’s participation in housework in more gender egalitarian societies (Fuwa 2004) and in those with policies promoting women’s access to employment (Fuwa and Cohen 2007). It is a weaker predictor in societies with longer parental leave, perhaps because such accommodations allow women to balance work and children without the husband’s household help (Fuwa and Cohen 2007).

Despite the undeniably important contributions of these first two eras of scholarly inquiry, prior studies have left a number of significant issues unresolved.

The volume of housework: Given a focus on the gendered division of housework, little sociological attention was paid to the volume of housework being done. To study the division of housework, researchers typically predict male hours of

housework, perhaps controlling for total (husband's plus wife's) hours, or else they predict the male share (i.e., proportion) of total housework done (Fuwa and Cohen 2007; Hook 2006). Neither approach is adequate for understanding the sheer burden of household labor (although it is this disproportionate burden that is implicated in societal gender inequalities, such as the negative outcomes for married women in the work place). Because of cross-national differences in the volume of household work, an egalitarian division of housework in a labor-intensive country context may be more demanding, tiring, and irksome than an unequal housework division where the volume of domestic work is low.

Longitudinal time budget studies have observed a decline over time in the hours of housework performed by women in the U.S. (Bianchi et al. 2000) and elsewhere (Gershuny). The gender equalizing trend in U.S. housework hours owes more to women cutting back on their housework time than to men's modest increases in theirs (Bianchi et al. 2000). Together, however, these changes have led to a drop in total housework hours. Whether the objective demand for household labor has declined is questionable. Although the number of household members dirtying dishes has declined, the average size of the home to be cleaned has increased. Thus, the decrease in total housework hours is variously attributed to a decline in domestic norms or aesthetic/hygienic 'standards', a diffusion of labor saving appliances, or an increase in the outsourcing of household services (de Ruijter, Treas and Cohen 2005). Regarding standards, the value that American women placed on a clean home did not decline between 1975 and 1995 (Robinson and Milkie 1998). Findings on the impact of labor saving devices are mixed: Dutch appliance ownership reduces housework (van der Lippe, Tijdens and de Ruijter 2004), but Australian does not (Bittman, Rice and Wajcman 2004). U.S. data suggest that working women's earnings are, indeed, diverted to outsourcing expenditures on cleaning, laundry, and meals out (Treas and de Ruijter In press).

In our pilot analyses with 2002 ISSP data, couples' weekly housework hours ranged widely from 16 in Norway to 41 in Ireland. Total hours vary by state welfare regime type, but we found evidence that both men and women in high-volume countries spend more time on housework. Western Germany has a deserved reputation for its highly-gendered, "breadwinner-homemaker" cultural model of domesticity (Cooke 2004). Yet, German husbands said they spent as much time in housework as their counterparts in Finland, where the total volume of household labor was only 2/3 as great. Thus, the domestic burden is not just a personal arrangement. Workload is a property of the societal context. Furthermore, rather than replacing one another's time (as the economic "specialization" arguments predict), partners' housework contributions at the individual-level correlate positively. The positive correlation observed may reflect the household's objective but unmeasured housework requirements, the shared preferences for home-based activities, or the agreed-upon hygienic standards that result from assortative mating or marital socialization.

Theorizing measures of household labor: Research on the household division of labor has inadequately theorized the dependent variable (Coltrane 2000). Variants of two measures are used. To determine the partners' relative contributions to household labor, there are hours-based measures, and there are task-based measures. Cross-national studies have relied either on measures of the husband's participation in female-typed tasks (Batalova and Cohen 2002; Cooke 2006; Davis and Greenstein 2004; Diefenbach 2002; Fuwa 2004; Fuwa and Cohen 2007; Geist 2005; Yodanis 2005) or on measures of his contribution to housework hours (Fuwa and Cohen 2007; Gershuny 2000; Hook 2006).

A systematic comparison of the results for the two measures is lacking, but a study for Germany and Israel suggests different factors are associated with the different measures (Lewin-Epstein, Stier and Braun 2006). As compared to couples with a full-time homemaker, dual-earner couples have wives who contribute fewer housework hours, but the couple's earner status is not significantly related to household task-sharing. I interpret this to mean that the hours each partner spends in housework are a function of a number of highly pragmatic considerations, particularly the volume of housework required and the time each partner has available for work around the home. Presser (Presser 1994) shows that a husband necessarily spends more hours in housework, even in female-typed tasks, if his wife is employed during the hours he is off work.

If hours spent on housework are an adaptation to the pragmatic demands of everyday life, performance of gendered tasks is an expression of values. Beyond provisioning the family and maintaining a hygienic environment, housework accomplishes symbolic ends. These ends include the construction of gender via routine household interactions (Berk 1985; West and Zimmerman 1987) and the expression of caring and regard (DeVault 1991). Sharing gendered tasks has rich symbolic meaning, reflecting on the nature and quality of the relationship between partners (Thompson 1991).

The tasks falling to women (e.g., cleaning, laundry, cooking) tend to be time-consuming, monotonous, and unrelenting, as opposed to the episodic, discretionary, and even recreational chores (home maintenance, auto repair, yard work) typically assumed by men. Even among dual-earner couples, a 50-50 division of housework is seldom valued as the optimal outcome (Gager 1998), but women do look to their husband for at least token help with "women's work," because this signals his caring and respect (Gager 1998). Although the modern companionate marriages of the mid-20th Century accepted separate roles for husbands and wives, the postmodern ideal of individualized marriages and pure relationships places a premium on flexibility, sharing, and emotional gratification (Beck and Beck-Gernsheim 2004; Cherlin 2004; Giddens 1992). Women whose husbands take on female-typed tasks are less likely to report feeling unappreciated (Spitze and Loscocco 2000) or to view their situation as unfair (Baxter and Western 1998; Blair and Johnson 1992; Sanchez and Kane 1996). Particularly for women, men's share of female-typed tasks has a much larger

effect on perceptions of housework fairness than does his share of male chores (Sanchez and Kane 1996).

The theoretical distinction between the pragmatically motivated housework hours and the symbolically meaningful task-sharing argues for a systematic consideration of both measures from a cross-national perspective. For example, despite a correlation between the two measures, one might expect male participation in female tasks to be more sensitive than their hours to the individual-level gender or marriage attitudes that lend meaning to domestic acts. According to my analyses, whether a woman's mother worked for pay before she was age 14--an established attitudinal influence--is associated with task-sharing, but not hours. On the other hand, personal preferences may be trumped by pragmatic concerns in societies where working wives predominate.

As recently as 1994, researchers found gender attitudes to be linked to the household division of labor (Cooke 2006; Geist 2005), but research based on 2002 ISSP data questions this relationship. One's gender role attitudes have become a markedly less important (and sometimes insignificant) determinant of how one divides "women's" work in Britain, Norway, and the Czech Republic--three countries where dual-earner families are now the norm (Crompton, Brockmann and Lyonette 2005). In pilot studies, Drobnic and Treas (2006) reach similar conclusions for the U.S. and Finland, finding that gender ideology affects women's evaluations of the fairness of their household's division of labor only for West Germans--who still embrace the gendered breadwinner-homemaker model.

Managing the household: Most research focusses on the physical aspects of housework. Household and caring labor also calls for planning, coordination, and management, activities which have been largely invisible in the research literature. Although household management has been identified as a last barrier to gender egalitarian marriages (Zimmerman et al. 2001), household management is the least researched aspect of the division of household labor. There is widespread agreement that managerial tasks fall disproportionately to women, if only as an entailment to their housekeeping and childcare duties (Henry and Tolich 2000). For example, meal preparation requires planning to meet family dietary needs and food preferences (DeVault 1991). However, there is a surprising lack of consensus as to whether the domestic manager is blessed or burdened.

According to the marital power tradition in sociology, the household manager is advantaged in terms of autonomy and control (Blood and Wolfe 1960). Studies of household decision-making infer the balance of marital power from whether husband, wife, or both managerial tasks such as choosing major purchases or recreational activities. In Britain, control over finances is linked to more decision-making authority and greater power; those who pool money and expenditures are the most egalitarian (Vogler and Pahl 1994). In the U.S., consistent with exchange theory, the power-conferring resources of the individual

partners (e.g., education) are linked to how they organize their finances, but convenience, trust, and other considerations also affect these decisions (Oropesa, Landale and Kenkre 2003; Treas 1993). With rare exception (Treas and Widmer 2000), cross-national evidence is lacking.

A revisionist perspective interprets household management not as a privilege, but rather as an unpaid job that burdens women (Pahl 1983). Even outsourcing household chores involves work to contract for help and monitor workers (de Ruijter, Lippe and Raub 2003). To engage a husband in housework, a wife must initiate a negotiation over chores and provide a list of tasks (Mannino and Deutsch 2007). Mothers must suggest activities, organize the family schedule, and patch over disputes to get fathers to interact with children (Seery and Crowley 2000). In the U.S., the ideology of “intensive mothering” in the middle-class has even caused an increase in the time spent coordinating children’s enrichment activities (Hays 1996; Lareau 2002)

Managerial responsibilities have negative effects. As with supervising children, managerial tasks compromise the quality of women’s free time—subjecting leisure to interruptions and multi-tasking while making free time less refreshing (Mattingly and Sayer 2006). Women’s responsibility for and first-hand knowledge of the family budget means that they are more deterred than their husbands from discretionary spending on themselves (Nyman 1999). Measures of both household tasks accomplished and household management duties have been found to be independently associated with wives’ perceptions of the unfairness of household arrangements (Mederer 1993).

D. THEORY AND HYPOTHESES

A general theoretical framework identifying the macro-level and micro-level processes of gender inequality appears in Figure 1 above. Applications of this approach in terms of sample hypotheses and illustrative key variables are presented for each of the three focal objectives of this research project.

To understand *the volume of household labor*, this project integrates individual-level determinants (e.g., small children) with country-level factors that shape the supply and demand for total, men’s, and women’s hours of household labor. E.g., we hypothesize that the volume of housework is decreased by high rates of women’s full-time employment limiting their domestic availability, by widespread labor saving appliances, and by school schedules and work hour policies that decrease the home’s exposure to “messy” family members. At a national level, housework demands will increase with a deteriorating housing stock, the number of rooms in the average home, high cultural standards of cleanliness, and public opinion relegating women to the household and men to the labor market.

Hours of housework and household task sharing will be compared in analyses that recognize the qualitative differences between the measures. Studies seldom theorize the distinctions, but we expect different country characteristics to be linked to different measures: family and employment policies will affect hours and cultural values will affect task-sharing. As we hypothesize, *male hours share* will be a) smaller where “family-friendly” policies (parent leave, part-time work) require fewer household accommodations so women can work for pay and b) larger where gender equality in jobs and wages raise the opportunity costs to couples of not accommodating women’s employment. By contrast, we theorize that male *participation in household tasks* will respond largely to cultural context. Gender norms label time-consuming laundry and cleaning tasks as “women’s work”. Because it symbolizes respect, men’s token participation in “female” tasks promotes women’s marital satisfaction even if the hours are unequal (Thompson 1991). Unlike hours parity, which is a pragmatic adaptation to the conditions of working couples, task-sharing is a response to cultural norms of spousal intimacy (measured as emotional support in ISSP 2001), egalitarian gender ideology, and diffuse schema of task gendering (per Guttman scaling of tasks that men avoid). Cross-national analyses comparing hours and task measures promise to clarify the determinants of domestic inequality and to distinguish universal bottlenecks to gender equality (tasks everywhere shunned by men and retained by women) from idiosyncratic national patterns.

Household management activities are rarely studied, particularly cross-nationally. Essential planning, coordinating and budgeting take time and create task entailments (e.g., functional linkages that lead the same person to plan meals, grocery shop, and cook). We study relations between housework and management tasks as well as their allocation between men and women. How is home management associated with the amount of housework women do? If deciding on child-rearing and big purchases equates to “marital power,” deciders have the bargaining clout to avoid doing housework. If household management is a burdensome chore falling to the subordinate gender, making household decisions may lead to more housework. Countries affect the relationship between types of household work: for instance, where mothers have sole responsibility for children, women will do more housework, as they spend more time at home. Yet, our pilot work finds the division of housework unaffected by a country’s availability of public childcare. Therefore, further study is needed on institutional factors.

E. RESEARCH PLAN

Data: Micro data come from the International Social Survey Program (ISSP) Gender and Family module fielded in 2002 and the European Social Survey-2 (ESS) Family, Work and Wellbeing module fielded in 2004-2005. The 2002 ISSP covers 34 largely Western and industrialized countries, including the U.S. The ESS-2 is restricted to 26 European states, but 16 countries appear in both

surveys. Both data sets have already been released to the public. Table 1 below summarizes the data sets.

Table 1: Hypothesized individual & institutional correlates of housework volume & division: Data & selected dependent and independent variables				
Data Year	Countries	Dependent Variables	Micro Variables	Macro Variables (source)
ISSP 2002	Australia, Austria, Brazil, Bulgaria, Chile, Cyprus, Czech Republic, Denmark, Finland, Flanders, France, Germany—East, West, Great Britain, Hungary, Ireland, Israel, Japan, Latvia, Mexico, Netherlands, New Zealand, Northern Ireland, Norway, Philippines, Poland, Portugal, Russia, Slovakia, Spain, Sweden, Switzerland, Taiwan, USA (34)	Weekly housework hours—total (male+female) male female (Respondent report) Division of female-typed tasks (cleaning, laundry, grocery shopping, meal preparation, caring for sick) Decision making on children's upbringing, weekend activities, major purchases	# children <7, 7-17 # adults Married-cohabiting Weekly work hours-male, female Weekly housework hours of spouse Tasks by "others" outsourcing proxy Spouses' relative incomes Household income Education--male, female Respondent's age Mother worked Gender liberalism score Approval of mothers working	<i>Housework Demand(SILC)</i> Households w/ microwave % dishwasher % Housing stock quality Mean rooms/hhold <i>Supply (ISSP)</i> Women employed full-time % Mean work hours/week men, women <i>Cultural Values</i> Per capita spending—cleaning products (Euromonitor) Mean gender liberalism score(ISSP) <i>Policies</i> School hours Childcare availability Maximum work hours
ESS2 2004-2005	<i>Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK, Ukraine (26)</i>	Household's total housework hours Weekday Weekend 6 category Male share Weekday Weekend Female share Weekday Weekend (Respondent	<i>Unique items only</i> Rural residence Homeownership # rooms Home equipped for Housework (no running water → has dishwasher) # daughters 12-17 Ever children	See above

	<i>Italicized countries also in ISSP</i>	Report)	Ever cohabited Union duration Nonstandard Workweeks Health status Agrees “Men and women equally responsible for household” Housework “monotonous,” “stressful” Looks after children or disabled Gets/gives unpaid help outside household Surviving mother # yrs. at home caring for children	

The study of housework volume complements the ISSP with the ESS, which offers many unique covariates as well as novel measures of housework hours. The comparison of hours-based and task-based measures focuses on the ISSP. The integration of household management utilizes measures in the ISSP.

Dependent variables from ISSP include total housework hours (volume), male housework share (% of total hours), and task-sharing. For “female” tasks (cleaning, laundry, meal preparation, shopping, nursing the sick), we construct an ISSP summary measure of male participation in “women’s work” but also undertake detailed cross-national analyses of task-specific male avoidance of housework. ESS uses a different operationalization of housework hours and shares (weekday and weekend separately, which will require evaluation to understand the properties of these new measures (see table)). Household management is measured by ISSP items on who makes decisions on raising the children, buying major items for the home, and weekend activities (recoded as male, female, both).

Country-level indicators come from official statistical sources, indices developed by others, and new summary measures we compute from cross-national surveys. Space precludes a full listing of country-level variables, but childcare availability, parental leave policy, work hour regulations, and employment access laws are social policy examples. GDP, female labor force participation rate, and, from European Community Household Panel, a proposed

multi-item (e.g., local grime, housing rot) scale of housing stock quality or “cleanability” show the range of economic influences. Public gender role attitudes, kin networks, and cleanliness standards (inferred from per capita cleaning product spending) are illustrative of macro-level cultural influences.

Different analyses must use different countries due to differences in ESS-ISSP country coverage, the availability of country-level indicators, and missing/incompatible items for particular countries. Also, missing data from item non-response, while limited, is apt to require imputation, likely with the multiple imputation techniques that I have used successfully with the ISSP 2001. Given data complexities, we will evaluate our procedures with numerous sensitivity tests and use systematic meta-analyses of findings to identify biases. Sample size limitations restrict analyses to partnered heterosexuals.

Methods and Procedures: *Hierarchical linear models* (HLM) are appropriate for cross-national analyses that integrate micro- and macro-level determinants of the volume and allocation of household labor. There is evidence of gender differences in reporting of housework hours (Lee and Waite 2005), including cross-national evidence (Geist Forthcoming.), we will undertake parallel analyses for men and women. Preliminary analyses and diagnostics will inform the HLM modeling. *Cluster and correspondence analyses* of countries (for example, based on task-share frequencies) can map patterns in the (de)gendering of chores, as well as identifying for HLM models the macro-characteristics distinguishing clusters. *Guttman scaling* of male participation in female-typed chores clarifies task-specific avoidance patterns and shows whether the avoidance hierarchy is universal or country-specific. The large number of countries permits estimation of HLM models containing several, country-level variables. Sequential models clarify macro-level relationships. In ISSP pilot work, for instance, several country characteristics are positively linked to male hours share, but only the country’s female-male earnings ratio mediates the egalitarian effect of historically high maternal employment. Besides main effects, interaction terms between individual and country variables (e.g., gender traditional attitudes of the respondent and the national population) test whether the national context magnifies or diminishes the effects of individual-level determinants.

Time Line: In Year 01, collaborating with other projects, we will construct, collect, and distribute country indicators for multi-level analyses; carry out multi-level modeling of the *volume* of housework with the ISSP; undertake ESS cleaning, imputation, and evaluation. Year 02 will involve developing and testing multi-level models of the volume and division of housework including unique ESS co-variates. We will also evaluate country-level factors hypothesized to influence gender equality in ISSP hours and task measures, respectively. In year 03, we will conduct ISSP and ESS analyses of the division of household management in relationship to its individual and institutional determinants and its association with gender inequality in housework; we carry out systematic meta-analyses to

reconcile results for various countries and measures to yield empirical generalizations that can inform policy. Major dissemination is also planned following a major conference with European collaborators.

Deliverables/milestones: The project contributes to an annotated cross-national data set of country-level indicators of institutional structure and values to be available on-line for the research community. A capstone conference--organized for the EQUALITY principal investigators, post doctoral researchers, the international experts, and others--will result in an edited volume, tentatively titled, *European Lessons on Sustainable Gender Equality*. Three major papers for international journals are planned: 1) "Cross-national insights on institutional determinants of the volume of housework," 2) "Does national context promote greater gender equality in the household? Comparing results from measures of housework hours and household tasks," and 3) "Household management and household work in 34 countries: Decision-making as power or burden?" As milestones, the project will achieve a fuller understanding of country-level impediments to domestic gender inequality through a) systematic multi-level analyses of novel fine-grained indicators of national values and institutions and b) refinement of housework measures to consider volume, hours versus tasks, and household management tasks.

F. BROADER IMPACTS

As described above, the proposed project is part of a broader international collaboration with four European scholars. The collaboration will bolster institutional alliances, such as the University of California-Utrecht University (UC-UU) Partnership, which supported pilot work on the proposed project. As the broader ESF EQUALITY project forms the core of a new European Work-Family Center, this individual project links American scientists to the new research institute. The project will provide training for the post-doctoral researcher and undergraduates whom it will employ, as well as for other students who are likely to affiliate informally with the endeavor. Students, early in their careers, will participate in conferences, workshops, exchanges, annual project meetings, and the capstone conference. These activities are designed to promote the next generation of international collaborations. A significant contribution will be the public archiving and dissemination of a cross-national data set of macro-level indicators pertinent to gender equality. To reach non-scientists, public talks, news releases, and media interviews are planned via UCI News and the Council on Contemporary Families.

Results from Prior NSF Support

a) Award # SES-0350814, \$98,000, 2004-06

b) The Division of Household Labor in Three Dozen Countries

c) The multi-level, fixed effects analyses replicate most previous findings regarding the individual and household level correlates of the division of household hours and tasks. The research advances knowledge of country determinants, pointing to the here-to-fore unappreciated association of macro-level maternal employment, residential mobility, and loose-knit family networks with egalitarian household arrangements. Cross-national analysis demonstrates the limitations of household gender specialization—wives' reluctance to rely on husbands to substitute even casually for their household labor or to augment their emotion work. The study of time preferences highlights the different logic of men's and women's thinking about work and family trade-offs. Other research supports the notion that women respond to time pressures of employment by outsourcing of domestic chores.

d) Publications to date

Esther de Ruijter, Judith Treas, and Philip N. Cohen. 2005. "Outsourcing the Gender Factory: Living Arrangements and Service Expenditures on Female and Male Tasks." *Social Forces* 84:306-322.

Judith Treas and Sonja Drobnič. 2006. "Understanding the Household Division of Labor in Comparative Perspective." *European Economic Sociology Newsletter* 8:28-29.

Judith Treas and Christin Hilgeman. 2007. "Trading Off or Having It All? Workers' Preferences for Work and Family Time." Pp. 93-108 in Tanja van der Lippe and Pascale Peters (Eds.) *Competing Claims in Work and Family Life*. Northampton, MA: Edward Elgar Publishing.

Leah Ruppaneer. In Press. "Fairness and Housework: A Cross National Comparison." *Journal of Comparative Family Studies*.

Judith Treas and Esther de Ruijter. In press. "Earnings and Expenditures on Household Services in Married and Cohabiting Unions." *Journal of Marriage and Family*.

Judith Treas. In Press. "The Dilemma of Gender Specialization: Substituting and Augmenting Wives' Household Work." *Rationality & Society*.