



LUND UNIVERSITY

The forest and the trees

Industrialization, demographic change, and the ongoing gender revolution in Sweden and the United States, 1870-2010

Stanfors, Maria; Goldscheider, Frances

Published in:
Demographic Research

DOI:
[10.4054/DemRes.2017.36.6](https://doi.org/10.4054/DemRes.2017.36.6)

2017

Document Version:
Publisher's PDF, also known as Version of record

[Link to publication](#)

Citation for published version (APA):
Stanfors, M., & Goldscheider, F. (2017). The forest and the trees: Industrialization, demographic change, and the ongoing gender revolution in Sweden and the United States, 1870-2010. *Demographic Research*, 36(6), 173-226. <https://doi.org/10.4054/DemRes.2017.36.6>

Total number of authors:
2

Creative Commons License:
CC BY-NC

General rights

Unless other specific re-use rights are stated the following general rights apply:
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00



DEMOGRAPHIC RESEARCH

A peer-reviewed, open-access journal of population sciences

DEMOGRAPHIC RESEARCH

VOLUME 36, ARTICLE 6, PAGES 173- 226

PUBLISHED 11 JANUARY 2017

<http://www.demographic-research.org/Volumes/Vol36/6/>

DOI: 10.4054/DemRes.2017.36.6

Research Article

The forest and the trees: Industrialization, demographic change, and the ongoing gender revolution in Sweden and the United States, 1870–2010

Maria Stanfors

Frances Goldscheider

This publication is part of the Special Collection on “Finding Work-Life Balance: History, Determinants, and Consequences of New Bread-Winning Models in the Industrialized World,” organized by Guest Editors Trude Lappegård, Fran Goldscheider, and Eva Bernhardt.

©2017 Maria Stanfors & Frances Goldscheider.

This open-access work is published under the terms of the Creative Commons Attribution NonCommercial License 2.0 Germany, which permits use, reproduction & distribution in any medium for non-commercial purposes, provided the original author(s) and source are given credit.

See <http://creativecommons.org/licenses/by-nc/2.0/de/>

Contents

1	Introduction	174
2	Industrialization and its implications	176
2.1	Industrialization, women, and the family	176
2.2	Sweden and the United States	178
3	Theoretical considerations: Broadening the standard economic model to include the family	179
4	Data and methods	182
4.1	Data	182
4.2	Measurement issues	182
5	Industrialization and the growth of paid activity	185
5.1	The emergence of the 'separate spheres' construct	186
5.2	Women at work	191
5.2.1	Better jobs	191
5.2.2	Married women's labor force participation	193
6	Explaining the first break in the separate spheres	196
6.1	Women's improving wages	197
6.2	The impact of the demographic transition on women's lives	198
6.2.1	Mortality developments in Sweden and the United States	198
6.2.2	Fertility developments in Sweden and the United States	199
7	Men in the home: The second break in the separate spheres?	201
7.1	Explaining the delay	201
7.2	Explaining changes in housework hours in Scandinavia and the United States	203
7.3	Explaining changes in childcare	205
7.4	Family leave in Sweden and the United States	206
8	Concluding discussion	208
	References	211

The forest and the trees: Industrialization, demographic change, and the ongoing gender revolution in Sweden and the United States, 1870–2010

Maria Stanfors¹

Frances Goldscheider²

Abstract

BACKGROUND

The separate spheres, in which men dominate the public sphere of politics, arts, media, and wage work and women dominate the private sphere of unpaid production and caring, is a powerful configuration in much social theory (including Parsons, Becker, and Goode), which posited that with industrialization, family structures and activities would converge towards the nuclear family with strict gender roles.

OBJECTIVE

This paper examines the major trends unraveling the gender division of family support and care that reached its peak in the mid-20th century, often called the ‘worker-carer’ or the ‘separate spheres’ model, by comparing the experiences of Sweden and the United States.

METHODS

We use data that includes time series of macro-level demographic and economic indicators, together with cross-sectional data from censuses and time use surveys.

RESULTS

The unraveling of the separate spheres began with the increase in the labor force participation of married women and continues with the increase in men’s involvement with their homes and children, but its foundations were laid in the 19th century, with industrialization. We show that despite short-term stalls, slowdowns, and even reverses, as well as huge differences in policy contexts, the overall picture of increasing gender sharing in family support and care is strongly taking shape in both countries.

¹ Centre for Economic Demography and Department of Economic History, Lund University, Sweden. E-Mail: Maria.Stanfors@ekh.lu.se.

² Maryland Population Research Center and Department of Family Science, University of Maryland, USA. E-Mail: frances_goldscheider@brown.edu.

CONTRIBUTION

By doing a comparative, in-depth analysis, it becomes clear that the extreme role specialization within the couple that divided caring from ‘work,’ though theoretically important, applied only for a limited period in Northern Europe and the United States, however important it might be in other regions.

1. Introduction

What are the origins of the ‘separate spheres’ approach to the activities of men and women, which reached its apogee in the 1950s and 1960s in most of the industrialized world? How did it happen that men came to dominate the public sphere of politics, arts, media, and, above all, market work for wages? And women to dominate the private sphere of the home where unpaid caring, nurture, maintenance, and also unpaid production take place? This is not a new question (Cott 1977; Engels 2004 [1884]), but it has rarely been addressed in the context of the recent family changes of increasing ages at marriage and parenthood, declining fertility, and rising rates of cohabitation, unmarried parenthood, and union dissolution, often called the second demographic transition (SDT) (Lesthaeghe 2010).

It is increasingly clear that the worker-carer configuration of men in the public sphere of paid work and women in the private sphere of unpaid work in the family is not an eternal, fundamental gender system: it has been coming unraveled for the past half century with the growth in female labor force participation. While anthropologists tell us that every society makes distinctions between the activities of men and women, they also tell us that the content of these activities varies widely in pre-industrial societies (Rosaldo and Lamphere 1974). How, then, did the separate spheres arise and take on such power that the dominant social theorists of the family in the 1950s and 1960s, e.g., the economist Becker (1960, 1965) and the sociologist Parsons (1959), reinforced by their psychological contemporaries’ interpretation of Freud (e.g., Strecker 1946), assumed that this gender structure was necessary? So much so that another major sociological theorist of that era, William Goode (1963), who actually examined industrialization and family change, posited that with industrialization, family structures and activities would converge from great heterogeneity towards a homogeneous end point, the nuclear family with 1950s gender roles. Goode’s prediction was clearly wrong, apparently in many dimensions (Cherlin 2012). Most fundamentally, his massive review missed the increases in the labor force participation of married women

that began to emerge in the 1950s and 1960s³ and strengthened greatly during the 1970s and 1980s: a change that from the beginning created great anxiety about the family (e.g., Hoffman and Nye 1974). To understand recent family changes, and perhaps why Goode was originally so wrong about women's roles, requires re-examining his question of how industrialization has affected the family.

In this paper we place our analysis within an economic theoretical framework, which is broadened to incorporate family care; but we take a multidisciplinary approach, adding demographic and sociological perspectives to our analysis. We begin the narrative with the establishment of the separate spheres, as industrialization moved men out of the household-based agricultural economy into industrial and commercial occupations, thereby enormously expanding the 'public sphere' of non-family activities.⁴ This left women behind in the 'private sphere,' initially managing the home, kitchen gardens, and small animals, with the help of the children. We continue the historical story past the 1950s, when the separation between the spheres was challenged radically first by married women's labor market activity and then by the emerging increase in male domestic activity. By comparing historical data from Sweden and the United States, two quite dissimilar countries that differ both in the timing and the extent of men's move into the public sphere and the speed with which women joined them, not to mention the ambition and extent of the welfare state in supporting workers and families, we will show that although the patterns and their timings vary, the trends are very similar.

By taking this broad brush approach to gender change, we will see that the many studies that focus on the 'trees,' i.e., only on married women's inroads into paid work, or only on what seems like the glacial pace of change in men's family roles as well as on the resistance to such change, are missing an understanding of the 'forest.' This comparison will also suggest that later industrializing countries may follow quite different gender paths as the structures of their separate spheres weaken. Some might cling to their gendered roles, maintaining a gender "essentialist" role structure (Brinton and Lee, forthcoming); others may minimize their gender differentiation, despite the strong impetus towards the separate spheres provided by the early industrializers (Boserup 1970; Garey and Townsend 1996; Thornton 2005). Even the early industrializers are making rapid headway towards much more equal gender roles, i.e., toward the complete destruction of the separate spheres.

³ Nearly 20 years later, however, Goode (1982) recognized many of the revolutionary implications of the rise of married women's labor force participation.

⁴ We realize that the public sphere was a much older construct, including such enduring and male-dominated institutions as government, the church, and other nonfamily institutions, but until the decline in agriculture, few men inhabited it in the way they came to, which is what made the public-private distinction the new foundation of gender roles in the family.

2. Industrialization and its implications

The story of the Industrial Revolution is frequently told (e.g., Ashton 1970; Floud and McCloskey 1981; Pollard 1981; Mokyr 1985), but its connection to the activities of men and women, and to the family, is a less frequent subject.⁵ Nearly all the foundational studies are profoundly male-biased, based primarily on the measurement of men's activities.⁶ Although economic historians agree that the onset of the Industrial Revolution is the most important event in history since the agrarian revolution, the focus is mainly on its implications for production and its contribution to economic growth and increasing living standards (e.g., Ashton 1970; Hartwell 1971; Lindert and Williamson 1983; Crafts 1985). Yet it has had many other effects.

2.1 Industrialization, women, and the family

In particular, in addition to raising living standards, industrialization has had far-reaching impacts on individuals and families, that is, on the social relations between individuals within families, not just on their economic activities. One impact that is acknowledged by demographers and family historians is critical to our narrative – the demographic transition from high to low mortality and fertility – as it is this set of changes, in conjunction with a transformation of women's opportunities to undertake paid work outside the home, that has revolutionized the productive roles of women. Thus, the Industrial Revolution not only fueled economic transformation, radically altering men's productive lives as subsistence farmers, but also contributed to the transition to the much longer life spans and smaller families that first transformed women's reproductive lives (Thompson 1929; Davis 1945; Notestein 1945; Demeny 1968) and then their productive lives.

These demographic changes, however, were not understood as changing women's roles. Reduced fertility was simply assumed to change their activities as housewives and mothers from caring for quantities of children to improving the quality of their children (Becker and Lewis 1974): Any other extra time was assumed to be devoted to

⁵ Humphries (2010) questions a longstanding belief about family structure before and during the Industrial Revolution and argues that the male breadwinner model better describes the majority (i.e., working-class) of families during this period than Tilly and Scott's (1975) family economy and DeVries' (2008) industrious household: the typical working-class family was dependent on the father's earnings, women were less likely to work, and children were the secondary earners (Humphries 2010: 85, 95).

⁶ Important exceptions focusing on women include, e.g., Berg and Hudson (1992); Burnette (2008); Hudson (1995); Humphries (1991, 2010); Pinchbeck (1930); and Tilly and Scott (1975). Also, de Vries (2008) acknowledges the role of women through a more elaborate focus on the household economy in his analysis of the 'industrious revolution.'

higher quality housekeeping, volunteer work, redecorating, and furthering their spouse's career. Hence, there was considerable surprise when married women chose to use their new time to help their families by adding at least occasional paid employment to their role set, but with initially little impact on men's roles, and even more surprise when family change erupted in the 1970s, including delays in taking on the highly committed family roles of marriage and parenthood, together with increases in union instability, likely in reaction to the new pressures on women that many men did not offset by taking on some of women's domestic tasks. These trends, the SDT, also include dramatically reduced fertility and great increases in both non-marital cohabitation and childbearing. They are often linked with rising rates of female labor force participation (Lesthaeghe 1983, 2010; van de Kaa 1987; Cherlin 1996).

We agree with this link between female labor force participation and family change, although it is contested (Johnson and Skinner 1986; Sayer and Bianchi 2000), because the rise in female employment is the opening crack in the separate spheres construction of the family, and thus in our view the first half of the gender revolution. In this paper we add a gender frame to the ongoing story of industrialization and family change by studying trends in two highly industrialized but quite different countries, Sweden and the United States. We undertake a systematic comparison of long-term trends in non-agricultural employment for men and for married women, examining the gender sphere gap that emerged when men joined the public sphere (notably via industrial employment) while married women largely concentrated on private (domestic) sphere activities. We then examine the way the gap narrowed over time as women joined men in the public sphere. Finally, we examine trends in men's contribution to the family in terms of domestic tasks, the final shattering of the separate spheres construction of gender roles.

By doing so, we hope to make clear that when a long enough temporal perspective is taken we see four types of productive relationships between men and women over the past 140 years. First, there was the agricultural household economy, in which men and women worked together side by side to ensure their family's survival, not necessarily as equals but sharing the same 'sphere.' The second gender relationship superseded the agricultural household economy when nearly all men moved into the emerging public sphere and women became the guardians of the family, thus creating the separate spheres. The third relationship developed when women initiated the gender revolution by challenging men's total dominance in the public sphere, eventually gaining near-comparable standing in the labor market (and dominance in education), while maintaining responsibility for most (now greatly reduced) domestic tasks. Fourth, and most recently, men have come increasingly to share these necessary tasks in the private sphere of the family. The spheres remain, but are no longer so rigidly gendered.

Most studies focus on shorter time periods, on single-country experiences, and/or only on one gender. Thus studies that focus on women find rapid and dramatic increases in their involvement in the public sphere, particularly labor force participation but also education, with little change among men, seeing the ‘trees’, as it were. From our longer-term vantage, together with our focus on two countries, the ‘forest’ dominates the view. Only by analyzing men and women jointly can we get a true sense of change over time: change that is nothing less than a total gender revolution.

2.2 Sweden and the United States

Our analysis, as a result, is both comparative and in depth, and hence gains the advantages of both approaches. As we note above, single-country studies, while allowing in-depth analysis, make it difficult to see what is general and what is unique, while most comparative studies include many cases and focus on only a single issue. Sweden and the United States exhibit both many similarities and great differences. Like all industrializing countries, these two countries have experienced economic transformations that have greatly increased both living standards and dramatic changes in the family. Neither the United States nor Sweden was among the earliest industrializers: in each, modern economic growth took off in the mid-19th century, and the period after 1870 marks the most rapid increase in industrialization and growth in both countries. They benefited from favorable resource endowments and from latecomers’ advantages based on technological and organizational advances made elsewhere. Innovations and new technologies, machines, and materials appeared throughout the last half of the 19th century and culminated in the early 20th century with electrification, capital-intensive industry, mass production, and the emergence of big business (Landes 1969; Chandler 1977).

There were, of course, differences. American industrialization was compressed into a shorter period of time and around 1900 the United States became the world’s industrial leader with many progressive features, while Sweden has more recently (since around 1970) become a leader in supporting gender equality and the family. Sweden industrialized more slowly and became a mature industrial economy somewhat later than the United States (Schön 2011),⁷ yet women’s entry into the public sphere was more rapid once it began. The two countries are also quite different from each other in size, institutional structure, social policy goals, and the historical treatment of women. Should trends regarding men’s and women’s involvement in paid and unpaid

⁷ When it comes to economic growth, Sweden outperformed the United States on a per capita basis between 1870 and 1970, to some extent due to catch-up, but also because Sweden forged ahead in certain sectors that advanced its position internationally.

activities converge in such disparate settings vis-à-vis both gender and the family, this makes a pretty strong case that what we observe is a general phenomenon, one that is undoubtedly already unfolding in many countries.

Our study focuses on the 140-year period between 1870 and 2010, a period of rapid growth that also includes the development of democratic welfare states and the growth in social spending (Lindert 2004).⁸ In the sections that follow we outline our theoretical approach and the data and methods we employ, followed by our analysis of the trends that together have been shattering the separate spheres: the move of women into paid employment and of men into domestic tasks.

3. Theoretical considerations: Broadening the standard economic model to include the family

In order to understand the patterns of change we observe, we must place this portrait of women's move into the labor force and then men's emerging move into the home in a theoretical framework. We take our point of departure from economic theory by broadening the standard economic model of labor supply, in which paid employment is modeled as an alternative to leisure and is hence a male life course, according to the separate spheres, i.e., a life course in which men have no responsibility for family beyond providing. The standard economic model is, at least in its design, gender-neutral, but not neutral regarding family responsibilities and therefore limited both for women and for men with family tasks.

The factors that affect the decision to work for pay in the standard economic model are the market wage offered, own preferences for work versus leisure, and unearned, non-labor, income. In this traditional (male) approach to labor supply, an individual will work one more hour (and therefore reduce leisure by one hour) as long as the market values this hour more than the individual does. The wage rate reflects market time valuation; the opportunity cost of not working is the market wages foregone. The value of leisure time depends on how the individual is willing to trade off work and leisure. A higher wage causes both an increase in paid work hours, as work becomes more attractive through the substitution effect, and a decrease in work hours through the income effect, as the need to work is weaker – although the net effect of these two

⁸ Although the United States and Sweden share features of industrialization, perhaps the biggest difference is their welfare systems and social spending levels, and in this respect they represent two extreme cases. While the United States is a residual welfare state with a focus only on basic safety nets that largely leave family support to the market, Sweden is a comprehensive welfare state with general and universal rights and benefits that provide substantial government support to individuals and families.

effects is uncertain. A change in wages contrasts with a change in unearned, non-labor-related income, where only the income effect operates.

We extend the standard economic model to show that the choice function vis-à-vis the labor supply decision for those with family responsibilities (e.g., women under the separate spheres) is more complex. It is shaped not only by potential earnings, preferences, and unearned income (predominantly the husband's earnings and transfers), but also by the costs of outsourcing household production (Jacobsen 2007; Blau, Ferber, and Winkler 2013). Hence, more realistically, it is a trade-off between three uses of time instead of two: work, leisure, and home care.

What the best choice is depends on context and necessarily changes with economic conditions. For example, increases in unearned income, perhaps due to rising earnings of the partner (henceforward the man), will reduce the other's (henceforward the woman's) labor force participation through the income effect. If women's wages rise, particularly if the female-to-male ratio increases, women's labor force participation should increase, although how much depends on the relative strength of the income and substitution effects.

For women who are outside the labor force, female wage increases can only exert substitution effects, making their time in employment relatively more valuable. Because children require time, reducing both paid work and leisure among parents, fewer children will lower the value of time in home production and increase labor force participation, in the sense that more women will work, and those who already are in the labor force will work more hours.

If we put theory together with the economic constraints and opportunities associated with industrialization, we can summarize by saying that increasing wages for women increased the value of work time and the opportunity cost of not working, and thus increased female labor force participation. Increasing male wages not only increased living standards but also decreased the value of paid work for married women by reducing the marginal utility of their economic contribution, and hence pulled in the opposite direction, reducing female labor force participation. Similarly, increasing productivity in domestic production reduced the value of a (marginal) hour of work in the home, so that could be devoted to other activities such as market work, which increased married women's labor force participation.

Hence, the standard approach to labor supply, involving a choice between two kinds of time use, is inadequate for women who have family responsibilities, and increasingly not a good representation of men's choices, as more men face the same three-fold choice regarding how to use time (market work, leisure, and household work) – not just those in egalitarian couples but also the rising numbers of single fathers (Hofferth and Goldscheider 2015). With changing gender relations in the labor market and in the family, men have started to take on more family and household obligations,

and this is the second change we need to consider within our theoretical framework. To do so, we need to address Becker's economic specialization theory.

Becker's (1965) theory on specialization applies to couples' allocation of market work and family work, assuming that men's and women's roles are complementary and that decisions about the allocation of time are made based on efficiency (i.e., the partners' comparative advantages in either type of work).⁹ Typically, men are assumed to be more productive in market work while women are assumed to be more productive in non-market activities such as housework and childcare, and thus the model predicts a gender-based division of labor. According to Becker, specialization and trade at the household level create mutual dependence between partners and stabilize marriage (Becker 1973, 1974, 1985).

Becker's assertion is similar to that of Parsons (1953, 1959), who added a further sociological advantage of specialization: the prevention of disruptive competition between spouses. These early researchers assumed that increasing female labor force participation decreased gains to marriage and would increase the likelihood of divorce, although empirical evidence on whether married women's employment actually is disruptive is mixed.¹⁰

Both Becker's and Parson's theories of specialization were developed against the backdrop of the male breadwinner model, which dominated Western countries during the 1950s and 1960s. In this context, many household goods and services were still produced in the home, and productivity differences between men and women were real. Growing consumer aspirations and the tendency to buy goods and services (childcare included) reduced the gains from specialization, and, together with many other changes, made female employment and dual breadwinning relatively more desirable (Oppenheimer 1988, 1997; de Vries 2008). In essence, women responded to changing economic incentives as men had done before, but took into account the extent of domestic tasks, as men increasingly have to do.

⁹ Small biological or human capital differences between men and women can be sufficient for this specialization (Becker 1981: 23). We note that however stable biological differences within couples have remained, increasingly human capital differences have reversed, rendering the likelihood of specialization increasingly indeterminate.

¹⁰ Becker, Landes, and Michael (1977), Ruggles (1997), and South (2001) find a positive relationship, while Bremmer and Kesselring (2004), Greenstein (1990, 1995), Johnson and Skinner (1986), and Michael (1985) find no such relationship.

4. Data and methods

In this paper we draw on a variety of data sources, both primary and secondary. Our approach is particularly useful when addressing the kinds of ‘how’ and ‘why’ questions we are interested in. It is also appropriate when making a historically informed and empirically based argument about long-term change.

4.1 Data

The data we exploit in our analysis includes time series of macro-level demographic and economic indicators, together with cross-sectional census data and data from various time use surveys. When dealing with these kinds of data, we try to maximize consistency across time and across our two geographic contexts. The time series are mainly taken from printed public statistics or publications, but some data is extracted from primary archival sources. Moreover, some of the figures relating to Swedish census data are new estimates. To the extent that we use already published secondary data, we re-examine and re-interpret it in a critical way.

4.2 Measurement issues

Research on women’s changing role in the public sphere, and particularly on men’s changing role in the private sphere, is relatively recent. In each case there are major measurement issues that cloud consideration of trends. Regarding public sphere activities, the concepts ‘employment’ and ‘labor force participation’ are difficult to measure and compare over a long period of time, particularly when the focus is on gender difference. The difficulties mainly derive from problems in data collection and from the way the collected data is categorized and defined. This has largely to do with the meaning of work and how work has been counted in the past. Measurement issues make studying change in the private sphere even more challenging.

The central measurement issue involved in our understanding of men’s and women’s roles in the public sphere arose from a conceptualization that focused on men’s market work outside the home, neglecting women’s activities. The censuses of Sweden and the United States, like many others, began with concepts of ‘usual occupation’ and ‘gainful employment,’ which referred primarily to full-time work in non-farm occupations (nearly all held by men), with other men coded as ‘farmers’ or

‘farm laborers.’¹¹ Female heads of household were often widows who took over proprietorship of bakeries and other shops, but also pharmacies and farms, after their husband’s death (Goldin 1990: 46–50). Few women worked outside of agriculture and, when involved in non-agricultural activities, were either self-employed or unpaid labor in various family enterprises (Carlsson 1968; Richards 1974). Their productive activities were less regular than men’s, seasonal, part-time, and commonly combined with unpaid care and domestic activities (Abel and Folbre 1990; Goose 2007; Atkinson 2012). Hence, they were ordinarily ignored.¹²

Relatively few men worked outside of agriculture as well, but because the activities they were involved in counted as gainful employment, most men were defined as in the labor force. For a farm couple, the husband was typically coded by census takers as a farmer, the wife as a housewife (or much more rarely, as an ‘assisting/unpaid family worker’), and hence as not economically active: neither with a ‘gainful occupation’ (thru 1930 for the United States and 1945 for Sweden) nor, thereafter, ‘in the labor force.’ Thus in the past censuses have underreported women’s economic activity. Women’s productive work was invisible before the separation of the domestic sphere and the market in early industrializing countries like Britain, across countries experiencing later industrial breakthroughs like the United States and Sweden, and in most poor countries today (Durand 1975; Goldin 1995; Mammen and Paxson 2000).

The undercounting of women’s contribution to production is clearly a problem. It resulted not only from conceptual ambiguities regarding what work is but also from the practical difficulties of collecting data (Waring 1988). Although attempts have been made to remedy the problem of undercounting overall female labor force participation (see Humphries and Sarasúa 2012), there is no consensus on how to overcome the problem in a consistent manner.

As a result of this gender asymmetry in the official sources, we will focus on a less contested area by examining the growth of non-agricultural employment. This is measured directly for men, and can be compared with measures of women’s labor force participation, which we assume is essentially non-agricultural, given the great

¹¹ Censuses were big costly projects to undertake. In Sweden they were justified in pre-industrial and early industrial periods by the need to list tax payers and estimate military reserves, while in the United States they were mandated in the constitution. Humphries and Sarasua (2012: 45) argue that the designation ‘worker’ had strong connotations, first in terms of political and property rights, and later in terms of social rights and benefits. For these reasons, men were considered as workers more than women. There is a large literature covering how definitions and practices among census enumerators undercounted women’s work (see Humphries and Sarasúa (2012) for a review).

¹² When women were full-time industrial workers, they were recorded. Most accounts of large factories indicate that workers kept close to the factory’s scheduled hours and that there were penalties for tardiness and work irregularity (Goldin 1990: 183; Atack and Bateman 1992). In 1890 a working woman faced an average work day of 9.5 hours (Costa 2000b). Work hours in Swedish manufacturing industry then were longer (between 60 and 65 hours per week, Stanfors et al. 2014). For a fuller understanding of the gendering of economic activity, see Durand (1975), Bose (1984) and Goldin (1990).

undercounting of women's agricultural work. Further, this will allow us to compare the longer-term changes for the genders directly, making census data, despite its deficiencies, useful.

Measurement issues are even more problematic for our understanding of change in men's and women's contributions to the private sphere. Housework and childcare were not only unpaid, so that hours were not tracked (as paid work in the public sphere has normally been), but were also defined as women's core adult role, especially with the emergence of the separate spheres.

This has made it very difficult to ascertain trends over time in unpaid productive private-sphere activities, challenging scholars to attempt to reconcile different approaches. Cain (1984), for example, determined after "new calculations" and "adjustments to the existing data" that previous research that had found little change in American women's domestic work hours (e.g., Vanek 1974) were incorrect, and that between 1890 and 1975–1976, married women's housework decreased by 41% and their total work time (including paid work) by 22% (Cain 1984, cf. Ramey 2009).

There were a few early efforts at measuring women's activities in the United States (see sources in Ramey 2009) and in Sweden (SOU 1939: 6; SOU 1947: 46), as well as the unpaid activities of both men and women (Morgan, Sirageldin, and Baerwaldt 1966 for the United States; SOU 1965: 65 for Sweden). The measurement of domestic activities began to expand rapidly in the 1970s (see Marini and Shelton 1993 for a useful review of this early expansion) and the study of men's share of housework and childcare is now a sizeable and growing area of research, both for these specific countries (e.g., Björnberg 2004; Evertsson and Neremo 2007; Dribe and Stanfors 2009 for Sweden; Sayer 2005; Aguiar and Hurst 2009, Ramey 2009 for the United States) and comparatively across industrialized countries (Baxter 1997; Hook 2006; Sayer et al. 2009; Cooke and Baxter 2010; Treas and Drobnic 2010; Gimenez-Nadal and Sevilla-Sanz 2012).

For the United States between the mid-1960s and the early 2000s, the development of reasonably standardized time use surveys has contributed greatly to our understanding of trends in paid work, domestic tasks, and leisure, at least for primary (or main) activities.¹³ Juster and Stafford (1985) examined change between 1965 and 1975, and Robinson and Godbey (1999) extended that analysis by adding the results of the 1985 survey and included new data for the early 1990s in their second edition. To date, the most comprehensive analysis, historically, is that of Aguiar and Hurst (2007).

¹³ It is not always easy to capture time in an activity, especially not activities that involve caring, as much takes place while doing other things. Hence, secondary activities are commonly ignored, leading to underestimation of how much time is really devoted to different activities (Zick and Bryant 1996; Craig 2006 being exceptions when it comes to childcare). While the Australian time use surveys seem to report secondary activities well (see e.g., Craig 2006), other time use surveys, such as the Swedish, have poor information on secondary activities.

Trends in the time men spend on domestic tasks have been much less well documented for Sweden. Swedish time use studies did not begin until 1990, with another survey performed in the early 2000s and a third wave completed in 2010/2011. The other Nordic countries have longer series, with Denmark starting to take time use surveys in the 1960s, Norway in the early 1970s, and Finland in the 1980s. As we will show, Scandinavian trends have been extremely similar, and this will allow us to use them interchangeably.

5. Industrialization and the growth of paid activity

We begin our analysis by showing trends in first men's and then married women's entry into the public sphere of non-agricultural employment. In this section we build on already extant evidence for the United States, primarily that presented by Goldin (1990) and Costa (2000a), and construct parallel analyses for Sweden. We document factors that contributed to married women's entry into paid activity, including demographic change and the narrowing of the gender wage gap. We also discuss the growth of 'good jobs' and the spread of household technology, and assess how these factors affected married women's employment. We then go beyond the classic accounts of women in the labor force (e.g., Oppenheimer 1970; Goldin 1990) by examining the growth of men's tasks in the home.

Our documentation of the growth in non-agricultural activity starts in the 1870s, when both countries industrialized rapidly.¹⁴ It is only after this industrial breakthrough that we have census statistics that enable us to map out the productive activities of the population by industry with any certainty. As noted above, only a small fraction of married women in either country were counted as part of the regular (i.e., paid) labor force in 1870. In this year most of the population was still involved in agriculture, though the US economy at this time was considerably more diversified than the Swedish, and a larger share of the US labor force was in sectors other than agriculture. As we have noted, the many women who undertook various activities on the family farm as farmers' wives did not usually count as gainfully employed in the censuses (but unmarried women hired at other farms were reported as agricultural workers). In the agricultural household economy, men and women would typically share work and family responsibilities, differentiated by age and normally subject to a gender-based

¹⁴ We acknowledge that by doing so we do not deal with proto-industrialization, during which the household is more of a functional equivalent to the agricultural household, with men and women working together in a household-based production unit. Our account focuses on later industrial development, in which centralized workplaces cleaved men and women into different spheres.

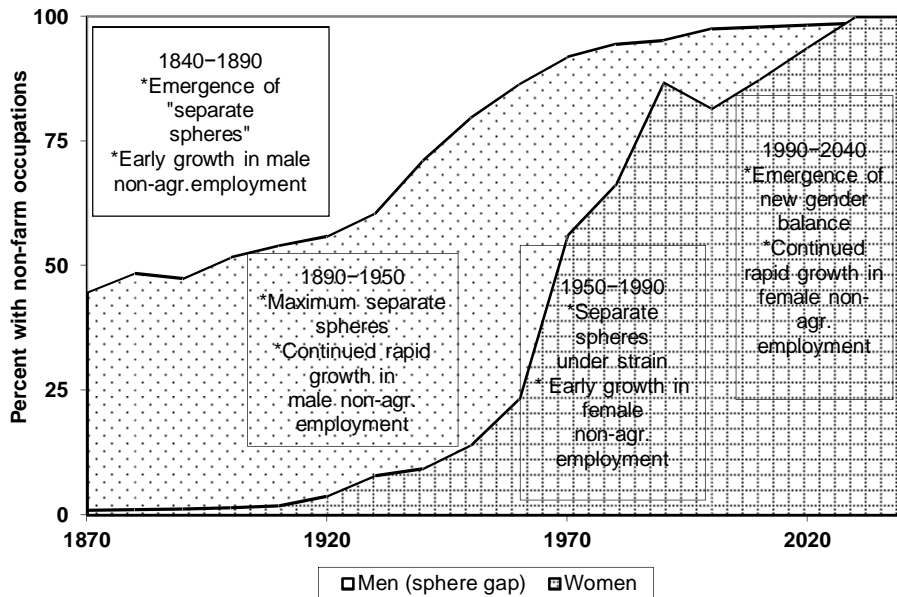
division of labor, although temporary reassignments were fairly common (Löfgren 1974; Osterud 1991).

With industrialization, new jobs emerged in manufacturing and services – in firms and factories – that offered better economic returns than agriculture. While this was true for both men and women, the transfer of women’s work from the household to paid employment in centralized workplaces was not as simple as men’s, complicated as it was not only by women’s reproductive responsibilities but also by discrimination and social taboos against the employment of married women (Goldin 1990). Hence, the growth of men’s non-agricultural employment during the latter half of the 19th century created a new gender-based division of work and family responsibilities, leading to the emergence of the construct of ‘separate spheres.’ As men were drawn into workplaces away from the home and women were left in the home with full responsibility for the domestic sphere, men became ‘breadwinners’ and women ‘homemakers.’ With the rapid growth in men’s non-agricultural employment, the concentration of men and married women in separate spheres continued to increase during the first half of the 20th century and peaked around 1950–1960 in both Sweden and the United States. This is shown graphically in the two panels of Figure 1.

5.1 The emergence of the ‘separate spheres’ construct

Figure 1 shows the development of men’s and married women’s non-agricultural employment in Sweden and the United States between 1870 and 2010 (with extrapolations into the future to suggest possibilities for gender convergence). The upper line shows the growth in men’s non-farm employment (i.e., classical industrialization). The lower line is simply the trend in married women’s labor force participation (as we discussed earlier, married women’s agricultural activities were largely uncounted in both countries). The patterns are thus more nearly comparable across gender than simple curves of male and female labor force participation. With these two lines we can observe three trends in men’s and women’s activities, at least at the aggregate level. The upper section can be thought of as the proportion of couples sharing agricultural activities. The middle section tracks the extent and growth of the ‘separate spheres,’ with men engaged in non-agricultural activities and women not yet employed in any non-domestic, non-agricultural activities. The lowest section shows the growth in dual-earning, non-agricultural couples.

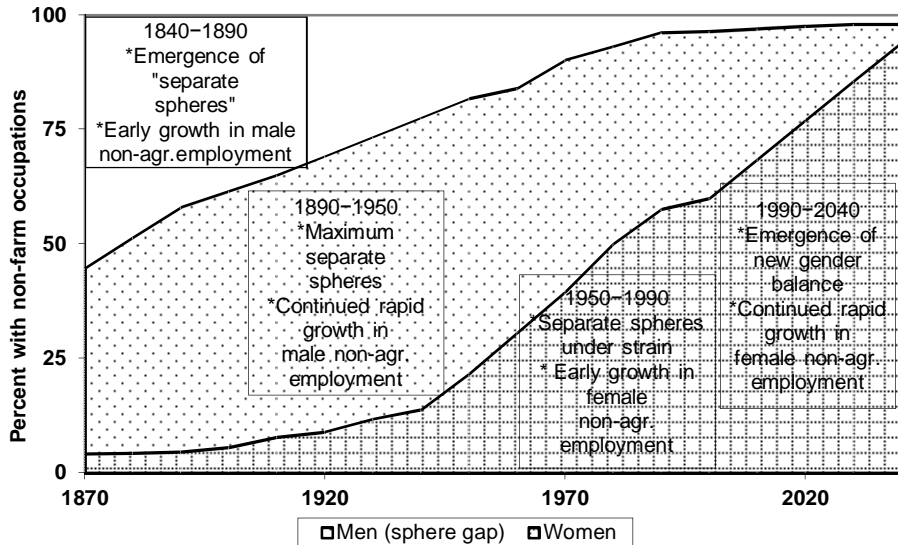
Figure 1a: The gender transition in employment: Change over time in the percentage of married men and women engaged in non-farm occupations, 1870–2010 and beyond, Sweden



Note: Figures for 1870–1960 for married women age 15 and over, figures for 1965–1985 married women 15–64, figures for the years 1990 and onwards include both married and cohabiting women, since the Swedish Labor Force Survey was EU-harmonized in 2005 the figures for 2010 denote women 16–74. Should that group be used, there would have been a decrease due to the inclusion of older non-working women in the population. Instead we use married/cohabiting women with at least one child 19 or younger in the household in the year 2010. Figures for years beyond 2010 are based on extrapolations on the most recent rate of growth in labor force participation.

Sources: Statistics Sweden, Swedish Censuses (Folkräkningarna) 1870–1960 (own estimations); Swedish Labor Force Surveys 1970–2010.

Figure 1b: The gender transition in employment: Change over time in the percentage of married men and women engaged in non-farm occupations, 1870–2010 and beyond, United States



Note: Figures for 1890–1980 are for married women age 15 and over, figures for 1990–2000 are for married women age 16 and over. Because of the inclusion of increasing numbers of women above retirement age (65 and over) due to ageing of the population, the overall figures stall after 1990 due to the inclusion of older non-working women in the population. Instead we use married women with at least one child 18 or younger in the household in the year 2010.

Sources: Men are the fathers of children in Hernandez 1993, p. 103; married women (age 15 and older in years 1890–1980) are from Goldin 1990, Table 2.1; married women (age 16 and older in years 1990–2000) and married women with children under 18 (age 16 and older in 2010) are from U.S Bureau of Labor Statistics. Figures for years 1870–1880 and beyond 2010 are based on extrapolations on the closest rate of growth in labor force participation.

Hence, this figure shows that as late as 1870 most men (and women) still worked in agriculture in each country. Effectively, in both countries most men and women occupied the same sphere, the household farm economy, where home and workplace were one. Thereafter, men took on non-agricultural jobs while married women, however productive they may have been, were still counted as inactive. Hence, the divide between men's and women's productive activities expanded, reaching its maximum in each country about 1950, the peak of the separate spheres.

Two important things should be noted. First, although the countries are different in many ways, looked at broadly the patterns of growth in men's and women's employment are extremely similar. The main conclusion from the graphs is that the

emergence of the separate spheres and the growing sphere gap between men and married women occurred in the same period and followed similar lines in Sweden and the United States. It should be noted that industrialization in the United States was earlier and more comprehensive than in Sweden, with more extensive non-farm employment for both men and women from 1870 until well into the 1950s (Table 1).¹⁵ It is not until the 1960s that differences start to emerge between the two, as married women's move into the labor force developed quite differently, partly related to the different role of the state and the public sector (for employment and provision of services) in the two countries.

Second, men's move from the household economy to work in the public sphere of manufacturing and services was just as revolutionary as the more recent changes for women. Men's move is normally described simply in terms of industrial change. However, it was also a serious move away from their families. In histories of men and family there is a general consensus that men were very engaged in family life prior to the Industrial Revolution and particularly in the practical and moral education of their children (Rotundo 1991; LaRossa 1997).¹⁶ In her book on child labor, Jane Humphries argued that industrialization and associated trends (e.g., empire building, waging wars) reduced fathering and impoverished the idea of fatherhood (Humphries 2010: chapters 3 and 5) as fathers became increasingly absent and distant figures. The early male breadwinner family was frail, as high mortality rendered many families fatherless and thereby poor. Work away from home separated men from their wives and children, and not all fathers were reliable, deserting their families. However, we have not been able to find much historical material on how men and their families experienced their greater separation. No doubt the fact that mothers remained in the home eased the effect on families of men's (partial) withdrawal.

¹⁵ Table 1 denotes both sexes and illustrates sectoral displacement from agriculture to industry and services over time. It does not capture the sphere gap illustrated in Figure 1.

¹⁶ Historian Grey Osterud, based on her study of family farming in New York State (1991, 2012), reported in a personal communication in 2013 that "...all the farmer-fathers whose diaries I read took care of their children during times of illness, alternating the responsibility of sitting up nights with their wives and other kin. They also took care of young children by themselves while women went out separately, such as to church or to visit relatives. They were present at and participated actively in home births, and frequently recorded their observations of milestones in their children's development, such as when they sat up by themselves, started creeping, stood alone, and walked. They noted their cognitive development, as well, such as when they said their first words, made complete sentences, and began asking questions. . . Some fathers studied their children's personalities and made entries regarding their individual temperaments and different inclinations."

Table 1: Industrial development of the labor force (both sexes): Sweden and the United States, 1870–1945/1950

Year	Agriculture		Industry		Services	
	Sweden	United States	Sweden	United States	Sweden	United States
1870	72	50	15	25	13	25
1880	68	50	17	25	15	25
1890	62	42	22	28	16	30
1900	55	37	28	30	17	33
1910	49	31	32	31	19	38
1920	44	27	35	34	21	39
1930	39	22	36	31	25	47
1940	34	17	38	31	28	52
1945/1950	30	12	40	35	30	53
1960	16	8	40	33	44	58

Note: Figures in the 1945/1950 row denote 1945 for Sweden and 1950 for the United States.

Sources: Kuznets (1957), Appendix Table 4, panels J (Sweden) and V (United States) for years 1870–1945/1950; Bureau of Labor Statistics (2005) for 1960.

It is clear from Figure 1 that by taking a long-term perspective, similar patterns emerge for both countries regarding men’s and women’s paid activity, and, in particular, a separate spheres gap emerges clearly and simultaneously. It provides a good picture of gender differences in labor force participation outside agriculture, because by focusing on the gap between men and married women we target the most significant labor market change that has taken place. As Figure 1 shows, married women’s employment was extremely low at the onset of industrialization. The sphere gap, while already noticeable, expanded as men moved out of the agricultural sector, and then grew substantially as industrialization continued.

Similarly to when men joined the industrial workforce, the growth in married women’s labor force participation changed both family life and the labor market. According to Figure 1, in both countries a particularly noticeable growth in married women’s non-agricultural employment began around 1960. Although different in pace, the process was similar in many other industrialized countries and put the logic of the separate spheres under strain. More married women were now part of the labor force, and stayed so for increasingly longer periods of their lives.

By 1960, agriculture was a negligible sector of the industrialized economies. Industry and services had become the dominant sectors of both the Swedish and US economies, providing new opportunities for women to work in a previously unknown way. But, perhaps more importantly, the constraints on married women’s work had eased considerably in the earlier decades through the lifting of marriage bars, the creation of scheduled part-time work, and the diffusion of modern (electric) household

technologies, together with the reduced price of such appliances. Housework became easier with the development of canned food, stoves, and sewing machines, followed by the diffusion of basic utilities such as running water, electricity, and central heating and then by the spread of household appliances such as refrigerators, vacuum cleaners, and washing machines (Hagberg 1986; Matthews 1987; Greenwood, Seshadri, and Yorukoglu 2005).¹⁷ This served to decrease married women's reservation wage and increase female labor supply despite a substantial gender wage gap, as we will see below.

5.2 Women at work

The sequencing of how women's work opportunities changed over time relative to men's has shaped the way married women's labor force participation changed (see Figure 1). Improvements in men's paid work opportunities and wages without corresponding improvements in married women's paid work opportunities and wages reinforced a sphere gap that only declined when women's labor came to be more in demand, their earnings rose enough to outsource many of their domestic tasks, and when family and other domestic responsibilities such as child rearing became more compatible with paid work activities. This primarily came about because of shorter working hours, which occurred in both countries. In Sweden, the development of leave schemes and daycare facilities further reduced work-family incompatibility, which also contributed to making mothers' employment more socially acceptable.

5.2.1 Better jobs

The industrial breakthrough of the late 19th century accelerated the move of workers from agriculture to industry and eventually to services (see Table 1). Whereas in 1870 more than 70% of Swedish workers were agricultural, this dropped over the following 90 years to about 15% by 1960, with concomitant growth in industry (from 15% in 1870 to 40% in 1960). Services grew even more over the period. The move out of agriculture was both faster and more complete in the United States, which hence had an earlier and more comprehensive expansion of these sectors than Sweden.

¹⁷ While Cowan (1983) also sees the introduction of labor saving household technology as important, she claims that it did not necessarily mean that women did less housework. Theoretically, however, it made the substitution effect more important, with implications for women's market work. Mokyr (2000) puts this into perspective, arguing that the scientific revolutions relating to the germ theory of disease and the scientific advances relating to nutrition prompted a new recognition of the value of cleanliness, and this raised the prestige of housework, contributing to separate spheres.

From a gender perspective, the move out of agriculture in the 19th century was more extensive among men than among women, particularly in Sweden (compare the levels for the total in Table 1 to those for women in Table 2). This led to the segregation of men and women into different sectors of the economy. Whereas men moved into better-paying industrial jobs, women (primarily young and single) more commonly worked in low-paying jobs in agriculture and domestic service.¹⁸ This applies to both countries, although around the turn of the last century (i.e., 1890/1900), agriculture was much more important for the few employed Swedish women (62%, 19% in the United States) and domestic service was more important in the United States (18% in Sweden, 29% in the United States).

Table 2: Industrial development of the female labor force: Sweden and the United States, 1870–1960, in percentages

	1870		1890/1900		1930		1960	
	Sweden	US	Sweden	US	Sweden	US	Sweden	US
Agriculture	79	na	62	19	34	8	5	2
Manual and other (manufacturing and transport)	2	na	10	34	23	30	35	33
Domestic service	16	na	18	29	16	18	6	9
White collar (sales, public administration, and services)	3	na	10	18	27	44	54	56
Total	100		100	100	100	100	100	100
Ratio female/male participation rate	0.36	na	0.34	0.23	0.43	0.29	0.42	0.44

Note: Figures denote women 14 years old and older prior to 1947, thereafter women 16 years old and older in the United States, but 15 years old and older in Sweden. Column 4 denotes year 1900 (Sweden) and column 5 denotes 1890 for the United States.
Source: Carlsson (1966), table 24; U.S. Bureau of the Census (1975), series D 11-25, D 26-28, D 29-41, D 182-232.

During the early decades of the 20th century, new white collar jobs opened up (particularly in services such as sales, banking and insurance, and public administration) that attracted women by providing ‘nice’ work, with better working conditions than elsewhere. The shift to white collar work for women was particularly

¹⁸ It should be noted that work in different sectors paid differently in a relative sense in different contexts, depending on the importance of the sector and other industries. While domestic work was a cut above the alternatives for British women, this was less the case in Sweden (Smith 2008: 86; Tilly and Scott 1987: 69).

remarkable in the United States. There was also expansion into manual and other jobs (manufacturing and transport), at least in Sweden.¹⁹

This evolution in the nature of jobs is clearly one of the important new factors underlying women's emergence in the public sphere. Other factors, particularly changes in the gender wage ratio and demographic changes, were also underway during this period, which we will discuss later. But perhaps the most important new factor that transformed women's (and men's) family lives was the emergence of married women's employment.

5.2.2 Married women's labor force participation

Marital status had for a long time provided an important dividing line in the activities of women, particularly their labor force participation. Census figures for all women hide significant changes in the labor force participation of married women. To clarify these changes during the 20th century we present labor force participation rates for women of working ages in Sweden and the United States, separately for the married and the unmarried (Table 3).

Table 3: Female labor force participation rates by marital status in Sweden and the United States, 1890–1990

Sweden										
	1890	1900	1920	1930	1940	1950	1960	1970	1980	1990
Total	17.8	19.1	26.9	30.7	29.3	29.5	32.0	59.3	75.2	82.3
Married	1.0	1.5	3.8	8.0	9.3	14.1	23.3	56.1	66.2	86.8
Single	48.8	51.7	52.4	56.8	58.2	61.7	53.8	65.9	74.4	73.6
United States										
	1890	1900	1920	1930	1940	1950	1960	1970	1980	1990
Total	18.9	20.6	23.7	24.8	25.8	29.5	35.1	41.6	51.1	57.5
Married	4.6	5.6	9.0	11.7	13.8	21.6	30.6	39.5	50.1	58.4
Single	40.5	43.5	46.4	50.5	45.5	50.6	47.5	51.0	61.5	66.7

Note: For Sweden, the years 1890–1960 refer to women older than 15; years 1970–1990 refer to women above 16 years. In 1990 the category 'married women' is expanded to include cohabiting women. The United States figures for 1890–1960 refer to women older than 15, while years 1970–1990 refer to women above 16 years.

Source: Statistics Sweden, Swedish Censuses (Folkräkningarna) 1870–1960; Swedish Labor Force Surveys (Arbetskraftsundersökningarna) 1970–1990. Figures for the United States 1890–1980 are from Goldin (1990: Table 2.1). Those for 1990 are from Handbook of US Labor Statistics (1999).

In all years, a large fraction of unmarried women in Sweden and the United States worked for pay. The labor force participation rates of single women were higher than

¹⁹ Alongside this development, manufacturing in itself became increasingly service-intensive.

those of married women well into the 1970s in Sweden and throughout the years in the United States. Single women were more likely to be gainfully employed in Sweden than in the United States. During the period 1890–1920 single women were driving the growth in female labor force participation, especially in Sweden, because they became increasingly urban and more likely to work for pay in industry and services.²⁰

By contrast, the participation rates for married women were extraordinarily low. Circa 1900, about 1% of married women in Sweden were in the labor force, a rate that did not surpass 10% until 1950. Participation rates for married women in the United States were slightly higher for the major part of the period of our comparison. Sweden does not stand out as a country with exceptionally high rates of female labor force participation in the past; rather, their rates, while lower, were comparable to those in the United States from the late 1800s to 1960.²¹ The rapid increase that was to take Sweden to a world-leading position in female labor force participation did not take off until the latter half of the 1960s.

The low participation rates of married women suggest that in both countries most women left the labor force at marriage. This is in line with the existence of a marriage bar, i.e., the practice of restricting married women's employment, or terminating contracts upon marriage (or the birth of the first child). This was common in the early 1900s across Western nations, and primarily affected service professions and occupations (Cohn 1985; Goldin 1990: 171–177; Jacobsen 2007: 417). The reasons given for marriage bars include norms reflecting patriarchy (Kessler-Harris 1982), and market forces in that they encourage turnover to employers where wages rise more rapidly than individual productivity, but also to the advantage of employees if there are rules (and not individual employers) that determine when such turnover will happen (Goldin 1990).²² Using rates by marital status, we calculated an assumed proportion of

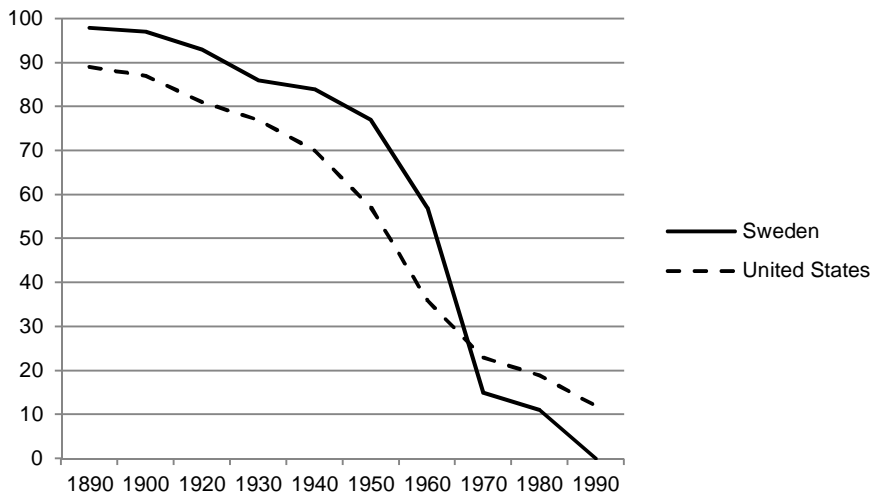
²⁰ It should be noted that the aggregate figures hide distinct differences between urban and rural areas in both Sweden and the United States. Goldin notes that keeping urbanization constant makes the participation rate relatively stable for the period 1890–1960 (Goldin 1990: 54). This is curious, because the American school system expanded rapidly between 1890 and 1930 through the high school movement (Goldin and Katz 2008). Increased education among young single women should have decreased their participation in paid employment. The same holds, in principle, for Sweden, though there was no high school movement and the expansion of education above primary education was more limited (Stanfors 2003: chapter 6).

²¹ In the case of married women, different war experiences matter a lot, as a sizeable number of American women were drawn into the labor force during mobilization, some temporarily and others permanently (Fernandez, Fogli, and Olivetti 2004), whereas Sweden, neutral during World War II, never mobilized officially, with war time having limited impact on married women's employment. However, US censuses missed most of this phenomenon, which in any case was fairly brief (1942–1945).

²² Marriage bars were especially important in banking and insurance, and more important in large companies than in small firms. In many jobs, employers want employees to stay, but certain configurations make turnover economically advantageous for employers: when wage scales are tenure-based there are low productivity returns to experience, and employees can easily be replaced. This explains why the marriage bar existed in particular industries, more during times of economic recession, and less in the United States than elsewhere.

employed women who left employment after marriage, by following Goldin's exercise in her classical study of women in the US labor market (1990: 16).²³ Figure 2 shows that in the late 19th century and well into the 20th, the vast majority of women (70%–90%) left the labor force in connection with marriage, both in Sweden and the United States, with Swedish women more prone to exit the labor market upon marriage than women in the United States well into the 1960s. That behavior declined rapidly between about 1940 and 1970, reflecting changes both in supply and demand. There was a shortage of young single women with more of them in education and marrying young, and an increasing demand for older married women reflecting a change in attitudes favoring this group (because of their reliability) alongside the expansion of jobs in services (Oppenheimer 1970). By the late 20th century, dropping out of the labor force at marriage had become a marginal phenomenon (about 10%); by 1990 it had vanished in Sweden, where marital status no longer affected labor force participation.

Figure 2: Women leaving the labor force in connection with marriage in Sweden and the United States, 1890–1990, in percent



Source: Table 3.

²³ The calculations were made as follows: By referring to the figures in Table 3 we see that in 1890 about 50% of all single women were in the labor force, compared to only 1% of married women, across ages. Assuming that these are women moving across their own life courses, ignoring that there may be differences in participation by age in combination with marital status, 98% (that is $(50-1)/50$) of these women would have left the labor force upon marriage. The corresponding figure for 1920 is 93%, and for 1950 and 1960 is 77% and 57%, respectively.

6. Explaining the first break in the separate spheres

So far we have provided an overview of how the separate spheres construct emerged with the growth in men's non-agricultural labor force participation and have examined the expansion in female labor force participation that followed, emphasizing the growth in better (white collar) jobs at the expense of worse ones (in agriculture and domestic service). In addition, we have showed the gradual breakdown of the once sharp distinction between being single and married in women's labor market participation. We are left with the big question: why the change?

There is no simple explanation for such an extensive change. We nevertheless establish a reasonably coherent narrative as to why married women first were left in the private sphere with responsibility for family and care but then after many decades broke out and joined men in the public sphere. By so doing they challenged the gender division of family support and the care structure that was established in the 19th century upon industrialization.

In order to understand women's increasing involvement in paid activity in the labor market (and men's later involvement in the home), we need to think about incentives to work and the forces promoting/discouraging work for pay outside the home. For men, this is relatively straightforward. Industrialization provided work opportunities in factories where wages were higher and meant a higher market time valuation, pulling men out of agriculture into industry. Their primary alternative time allocation was leisure, which on the family farm included parent-child interaction and home improvement, but, increasingly, for many men in the late 19th century agricultural work also implied under- or unemployment and low income, which affected the leisure time valuation negatively.

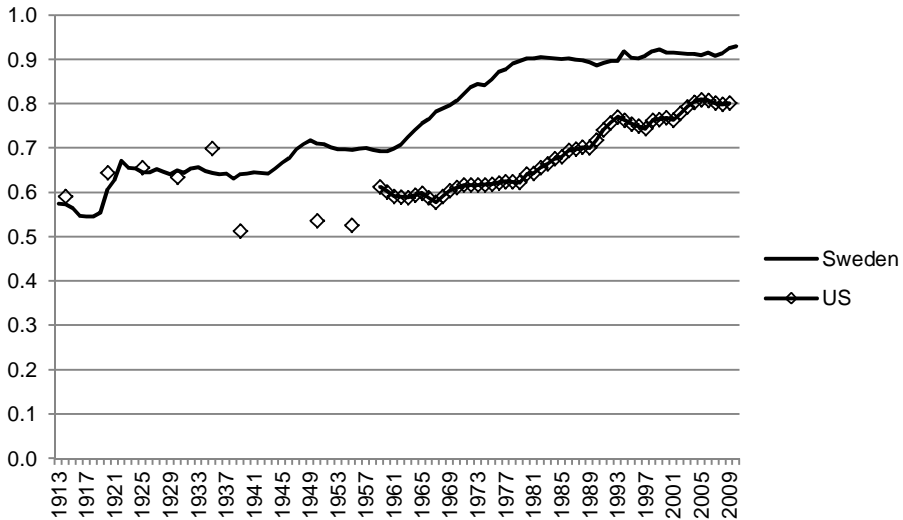
For women, the decision-making process was more complex and the incentive structure different from that of men. Married women had reproductive responsibilities and there was a social stigma attached to their working, as it indicated having an unsuccessful husband. When women made decisions concerning labor supply they needed to consider more factors than men, including their productivity both in the home and the labor market, their own wage and their husband's income, not to mention the well-being of other household members.²⁴ If we are to understand the drivers behind the increase in married women's labor force participation we need to consider improving wages, declining fertility, and gains in life expectancy.

²⁴ Along with standard theory, Chichilnisky (2008) points to the interdependency of the family and the firm, comparing it to a game with incomplete information where women's responsibility for care and housework creates a negative externality to their market productivity. In times when the gender pay gap has decreased there has been a high demand for (female) labor and also a new situation allowing women to reduce their domestic responsibilities: this is the case for the 1920s, the 1940s, and 1960–1980.

6.1 Women's improving wages

Industrialization provided substantial improvements in wages in both Sweden and the United States. Real wages grew throughout most of the 20th century in both countries, with higher and more stable growth rates than previously. Like real wages, the female-to-male relative wage also increased during the 20th century in both Sweden and the United States. The relative wage increased in a more consistent manner, especially during the 1970s and 1980s. The average hourly wage of female Swedish workers in manufacturing was 58% of the corresponding male wage in 1913. By 1995 it had reached 90% (Figure 3).²⁵

Figure 3: Female-to-male hourly wage ratio in manufacturing in Sweden and the United States, 1913–2009



Note: The wages are full-time equivalent earnings adjusted for gender composition of different industrial branches with different wage levels.

Source: For Sweden, the data series on wages rest on computations by Lars Svensson and Maria Stanfors from Statistics Sweden, Social Reports (*Sociala meddelanden*) 1915–1927; Statistical Yearbook of Wages (*Lönestatistik Årsbok*) 1928–1951; Wages (SOS) 1952–1999; Statistical Yearbook (*Statistisk Årsbok*) 2000–2009. For the United States, information on wages comes from Goldin (1990: Table 3.1) and the Bureau of Labor Statistics (www.bls.gov).

²⁵ This figure is high in international comparison. During the 1990s, Swedish women earned one of the highest percentages of men's earnings in the world (see overviews in Blau, Ferber, and Winkler 2013 and Jacobsen 2007 for comparisons).

The long-term process of gender wage equalization is similar for both countries (although the US series suffers from inconsistency and few data points). It includes periods of rapid rise as well as periods of stability and even small declines, but the overall trend is an equalizing one. Although manufacturing has only made up a limited part of women's labor market (see Table 2) the same pattern of wage equalization has been observed for other sectors of the economy, at least in Sweden (Stanfors 2003: chapter 3). Thus we assume that gender wage equality in manufacturing is a good benchmark for overall gender wage equality. Blau (1998) has found that the overall wage structure in a country has an important impact on the gender wage gap. In fact, it explains most of the differences in the gender pay gap between Sweden and the United States. What distinguishes Sweden from the United States in Figure 3 is the more rapid narrowing of the gender wage gap, which provided women in Sweden with more incentives to work, particularly during the 1960s and 1970s.

6.2 The impact of the demographic transition on women's lives

The demographic transition also contributed to women's entry into paid employment by restructuring their adult lives. In the new equilibrium that emerged in the mid-20th century after the mortality and fertility transitions, caring for the young was no longer a life-long, full-time career for women, as it had been until well into the 20th century, because they had longer life expectancy and smaller families. Demographic changes thus contributed to the first breakdown in the separate spheres.

6.2.1 Mortality developments in Sweden and the United States

In the agricultural economies of Sweden and the United States in the 19th century, lives were not very long. Although much of the overall gain in life expectancy between the late 19th and mid-20th centuries was due to the massive decline in infant and early childhood mortality, much was not. Young adults led increasingly long lives.

According to data from the 1870s, at age 20 women could only expect on average another 40 (US whites) to 45 (Swedish) years of life. Hence, when 19th century women married in their mid-twenties – about age 24 in the United States (Haines 1996) and 27 in Sweden (Statistics Sweden 1999) – and bore four to five children (Statistics Sweden 1999; Jones and Tertilt 2008) over their next ten to fifteen years (some of which, of course, did not survive), they would have children living at home until they were almost 60 years of age, when they were normally widowed and not in good health. Their adult years were their child-raising years.

By the peak of the baby boom 80 years later (1951–1960), however, when young adults married and had children at very young ages, structuring a life around home and family no longer fitted the years the demographic transition had given them (Watkins, Menken, and Bongaarts 1987). If women married at age 20, as many American women did in the 1950s (Haines 1996), and quickly had several children, when their last child left home they were still in their early- to mid-40s and could expect to live many more years, with a similar pattern for Sweden.

The major analyses of the growth of female labor force participation conclude that this growth was driven by economic changes creating increasing demand for women's labor (see Oppenheimer 1970 and Goldin 1990 for the United States, and Durand, 1975 for a comparative analysis). Nevertheless, demographic changes made women more able to meet this new demand. Goldin (2006) argues that the extended time horizon was important for women's human capital investment. The change from short- to longer-term decision-making was not limited to the highly educated and thereby had vast consequences for women's family lives. The choice to marry and have children later, as well as to divorce, makes more sense when life seems long.²⁶ Women's move into the public sphere was the result of many economic and demographic changes, but, whatever the combination of reasons, the result has been that the vast majority of women in both Sweden and the United States expect to spend the majority of their adult years employed for pay, and most men expect them to do so (Goldscheider and Kaufman 2006; Thomson and Bernhardt 2010).

6.2.2 Fertility developments in Sweden and the United States

Like the industrial and mortality revolutions, the fertility decline profoundly changed the lives of women as they transitioned from bearing six or so children to two, or even one. At the beginning of the 20th century, while men were leaving agriculture and married women remained home, fertility was declining, ending in the 1920s–1930s, followed by a pattern of cyclical fertility variation. Although the long-term fertility trends are similar in many countries, these two cases show dramatic wave-like movements and variations and shifts in levels (Figure 4).

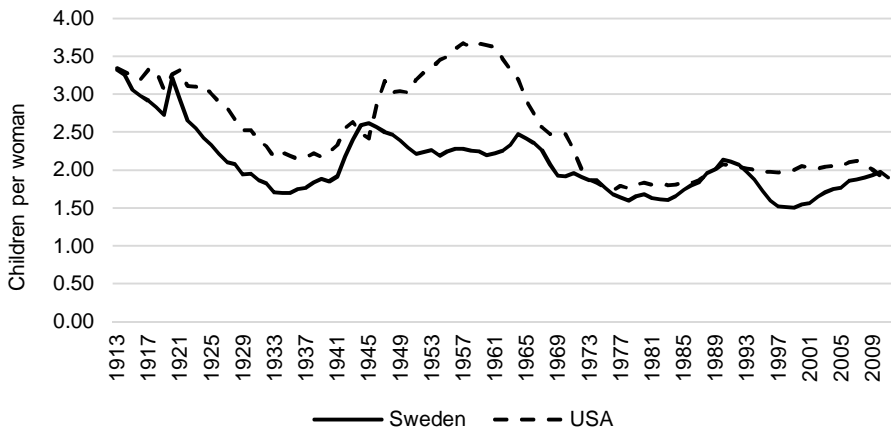
Both countries experienced a baby boom after World War II, although in the United States it was more extensive. These baby booms coincided with the 1950's peak of the separate spheres in each country. At that time, psychologists considered families in which the husband worked and the wife stayed home to be the healthiest, sociologists

²⁶ The late marriage ages of the earlier, agricultural era were not a choice but the result of rules for establishing a family in a family system that postponed marriage until a household could be independently supported (Hajnal 1965).

considered them the most stable, and economists thought them the most efficient. In the 1960s, however, coinciding with increases in married women's employment, fertility fell in both countries, raising concern but also challenging these interpretations.

Since the late 1960s the US total fertility rate has been one of the highest among Western countries (around the replacement level of 2.1), while Swedish fertility has varied more, closely connected to variations in the business cycle. Female labor force participation, especially that of married women and mothers, has nevertheless continued to increase in both Sweden and the United States. In parts of the Western world, however, the drop in fertility rates following women joining the labor force has been more dramatic.²⁷

Figure 4: Total fertility rates in Sweden and the United States, 1913–2010



Source: Swedish total fertility rates from Statistics Sweden, Population movements (SOS Befolkningsrörelsen) 1913–1960; Population changes (SOS Folkmängdens förändringar) 1961–1967; Population changes (SOS Befolkningsförändringar. Del 3) 1968–1990; Population statistics (SOS Befolkningsstatistik. Del 4) 1991–2010. Total fertility rates for the United States come from the National Center for Health Statistics. Help from Mark Mather is gratefully acknowledged.

Moreover, in Sweden highly educated dual-career couples are more likely to continue childbearing (and are less likely to separate) than other couples, despite the expected higher opportunity costs of childbearing and smaller gains to specialization (Dribe and Stanfors 2010). It seems to be the case that female labor force participation

²⁷ In some Southern and Eastern European countries, fertility rates have dropped to such an extent that Kohler, Billari, and Ortega (2002) introduced the concept of 'lowest-low' fertility to describe heretofore unheard of low levels of fertility. Countries like Greece, Italy, and Spain have had sustained periods with total fertility rates below 1.3.

is negatively associated with fertility in developing countries with under-developed welfare states (cf. Stycos and Weller 1967), while positively related to fertility in countries that are more developed welfare states, such as Sweden. This puts into perspective the much-feared destabilizing impact of married women's and mothers' labor force participation on the family, as proposed in the 1960s and 1970s.

7. Men in the home: The second break in the separate spheres?

While female employment rates and women's time in paid work increased substantially in the 1970s and 1980s, their time spent in unpaid work, although it declined a great deal, remained far higher than men's domestic time (e.g., Bianchi 2000; Gauthier, Smeeding, and Furstenberg 2004). As a result, women came to be seen as doing a 'second shift' of unpaid work, giving them less time for leisure than men (Hochschild and Machung 1989; Sayer 2005), although differences in combined paid and unpaid work hours were small, given that employed men usually worked more hours than employed women and had longer commuting times (Aguilar and Hurst 2007). Nevertheless, men were not increasing their household work very much, leading many to characterize men's lack of response to the increase in female employment as a 'stalled revolution,' which was unlikely to advance further (e.g., England 2010). In this section, we attempt to analyze trends and determinants of men's slow move into the home and its tasks, the final crack in the separate sphere.

7.1 Explaining the delay

There have been numerous explanations for the delay in men taking up responsibilities in the domestic sphere as a parallel to women's surge into the public sphere, including seeing the home as a 'gender factory' and romantic unions as a 'game.' Gender factory theory emphasizes that even in dual-career couples a traditional pattern of housework emerges through gender display, partly because women compensate for their deviant behavior in the public sphere by doing more housework, partly because men resist (Fenstermaker 1985; Brines 1994; Greenstein 2000; Bittman et al. 2003). The game theory analysis suggests that as long as many domestically oriented women are available, men with wives pressuring them to participate in household tasks could threaten to leave for a partner with no such demands (Breen and Cooke 2005). However, as gender roles change and the proportions of working women increase, the 'gender factory' will increasingly produce more egalitarian displays and the game will be over (cf. Chichilnisky 2008).

Nevertheless, whatever the explanatory power of gender display and game theory in the early years of women's entry into the public sphere, men's roles did not really need to change, and hence did not. Both employed and non-employed women rapidly dropped the time they spent in housework. Between 1965 and 1975 they reduced housework by five hours per week (Aguiar and Hurst 2009).²⁸ Women were responding to new opportunities by adding new roles while streamlining old ones. If anything, between the 1940s and the 1960s – which marked the height of the single-worker family, yet with few children at home, given the low fertility of the 1930s – housewives had much less actual work to do than men, and men began to notice. In both fictional and non-fictional works, women were accused of “momism,” meaning that they were using their extra time to become over-involved with their children, particularly with their male children (Wylie 1942; Strecker 1946; Friedan 1963; Roth 1969).²⁹

A more serious impediment was that men were far less prepared to break the separate spheres, in their turn, than women were. Women increasingly expected to work while they remained single, which encouraged them to obtain at least some education and made the marriage bar increasingly problematic, particularly for childless married women. By contrast, the socialization of men to avoid tasks in the private sphere began at an early age. As fathers' chores in the household economy withered, so did those of their sons. Even as school hours and years for boys and girls became more or less the same, children's housework hours differed sharply by sex (Goldscheider and Waite 1991; Hofferth and Sandberg 2001). An even more serious problem is that tasks in the domestic sphere are of low status because they are unpaid (or outsourced to poorly paid women), with none of the benefits of tasks in the public sphere (e.g., vacations, raises), and hence are much less attractive to men than the jobs women were taking on in the public sphere were to them. It is likely that this asymmetry in the ease/difficulty of women and men breaking their separate spheres gave rise to many of the phenomena associated with the second demographic transition. Nevertheless, men have finally begun to share family tasks. How did this happen?

²⁸ Aguiar and Hurst's (2009) is one of several major studies of Americans' time use between 1965 and 2005, published late in the first decade of the 21st century. Other examples include Gershuny and Robinson (1988), Fisher et al. (2007), Ramey (2009), Kan, Sullivan, and Gershuny (2011), and Gimenez-Nadal and Sevilla-Sanz (2012). Ramey uses somewhat different definitions, consistent with her goal of covering the entire 20th century; Fisher et al. focus more on the rich contextual information in the historical diary accounts, particularly concerning who else was present during an activity and when or where the activity occurred, while Gimenez-Nadal and Sevilla-Sanz and Kan, Sullivan, and Gershuny focus on cross-national comparisons.

²⁹ Most women, of course, were not over-involved, spending fewer childcare hours during this period than later in the 20th century (Bianchi 2000).

7.2 Explaining changes in housework hours in Scandinavia and the United States

Pressure on men to contribute more to the well-being of their families finally began to increase by adding family care to their adult roles. Although increased uncertainty in the labor market put more pressure on men to provide, it also increased the need for couples to have two incomes in case one failed (Oppenheimer 1997). If wives' employment had once been primarily insurance (Warren and Tyagi 2004), it became a necessity for many families in order to meet consumer aspirations (cf. deVries 2008). As a result, between 1975 and 2005 more women became economically active, and although they shed another five hours of weekly housework time, the great increase in intensive parenting (Bianchi, Robinson, and Milkie 2006; cf. Dribe and Stanfors 2009; Neilson and Stanfors 2016) meant that they increased their time in childcare by nearly as much (Aguiar and Hurst 2009), so women's leeway to combine work and family on their own vanished.³⁰ They needed fathers to help with both childcare and household chores.

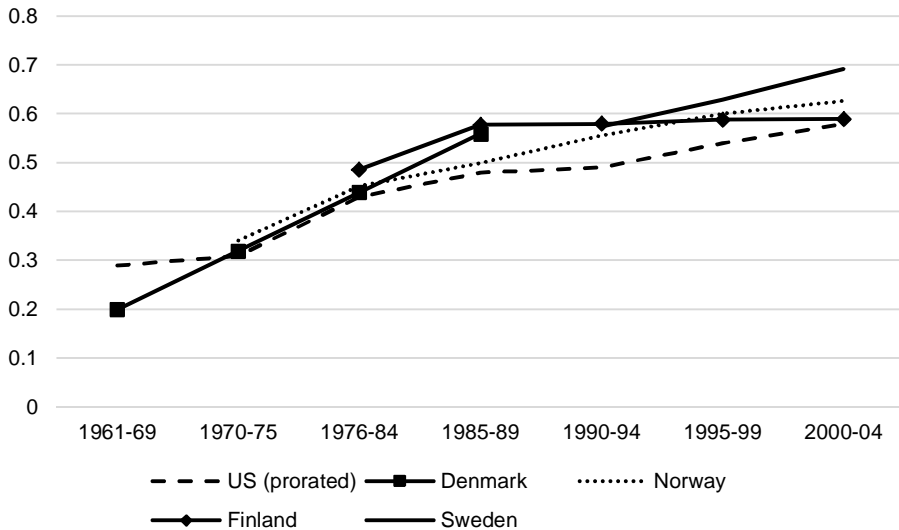
The clearest picture of the great increase in men's share of domestic work can be gleaned from a study on changes in combined housework and childcare hours for several countries between the 1960s and the early 2000s (Kan, Sullivan, and Gershuny 2011). We calculated ratios of male-to-female hours for the Nordic countries (Denmark, Finland, and Norway, as well as Sweden), and added parallel information for the same period for the United States (Aguiar and Hurst 2009). The results are powerful (Figure 5).

In the 1960s, given women's many and men's few housework hours, men were spending less than 30% of women's time in the United States and only 20% in Denmark. Men's share increased slowly in the early 1970s, but there was a rapid increase to between 43% and 48% in the late 1970s to early 1980s (with Finland joining the series at the high end), which continued to near 50% and even 60% in the late 1980s. Sweden joins the series in the early 1990s, just above Norway (all just below 60%). After that the rate of increase continued vigorously for Norway, Sweden, and the United States, reaching almost 70% in Sweden and around 60% for the others, as a result of women's declines and men's increases. The ratio of female-to-male labor force participation has even more closely approached equality: by 2012 it reached 90%–95% in the Scandinavian countries and over 80% in most of the rest of Europe. This ratio reached 78% even in Southern Europe, which continues to have the lowest level of female labor force participation in Europe (Oláh 2015).³¹

³⁰ Both qualitative and quantitative research report that parents have been spending more time with their children while cutting back on partner time (Hays 1996; Daly 2001; Dew 2009).

³¹ Admittedly, this substantial increase in men's share of domestic time, from barely 20% of women's level to nearly 70%, is not based on as vigorous an increase in men's actual time. Much of the change in the ratios reflects the drop in women's reported hours. Of course, the same can also be said for the labor force ratios, as

Figure 5: Men’s growing share of housework and childcare time in Scandinavia and the United States, 1960–2010



Source: For the Scandinavian countries, see Table 1 in Kan, Sullivan and Gershuny (2011). Information for the United States come from Aguiar and Hurst (2009: Table II).

While the extent of gender convergence is considerably less for private sphere activity than for public sphere activity, it is still quite dramatic (Bianchi et al. 2000; Bonke and Esping-Andersen 2011). In a relatively short period of time (about 40 years), the picture of gender sharing of domestic work and family time has been transformed. Further, younger men’s attitudes have become much more accepting of sharing domestic tasks equally (Gerson 2010). Change has been great enough that some scholars argue that “a genuine process of equalization is under way” (Esping-Anderson 2009: 34). And vis-à-vis childcare, the change has been nearly revolutionary.

male levels have been declining. Further, in many countries, a substantial proportion of working women work part-time.

7.3 Explaining changes in childcare

Most studies of men's involvement in domestic tasks have focused on housework, ignoring childcare. Nevertheless, childcare is likely to be the opening wedge, because time with children is experienced as far more personally rewarding than other household tasks (Krueger et al. 2009).³² Increasing childcare is a natural precursor to increasing housework, as men learn that children need food, clean clothes, a clean environment, and help with homework (Evertsson 2014). Most people also find household tasks easier to outsource or forego than childcare; hence the growth in meals away from home and the decline in food preparation (Raley, Bianchi, and Wang 2012). By contrast, people attempt to minimize outsourcing childcare to the hours both parents are at work, pursuing active parenting as much as possible.

By the end of the 20th century in the United States, fathers spent five more hours per week with their children than they had 20 years earlier, an increase that continued into the early 21st century (Aguiar and Hurst 2009; Bianchi, Robinson, and Milkie 2006) with little if any sign of a stall. Men needed an entrée, and it is likely that this has emerged in the form of the growth of father involvement, i.e., childcare.³³

Most of the research literature on increases in father involvement, however, is quite separate from studies of gender differences in housework hours. Scholars in the father involvement tradition rarely write about housework (e.g., Pleck 2010) and seldom make comparison across groups (including across gender), focusing instead on the measurement of various dimensions (e.g., accessibility, warmth, monitoring, responsibility, and engagement), and are normally published in journals focusing on psychology and in specialized journals (e.g., *Fathering*). By contrast, sociologists and economists normally conduct studies of housework. Scholars of fatherhood celebrate increases; those studying housework worry about stalls in trends (e.g., England 2010).

An interesting indicator of the growth in men's time in childcare emerges when hours spent are divided into weekday and weekend hours. Men's childcare hours are much closer to equality on weekends than on weekdays (Craig and Mullan 2010; Hook 2012; Neilson and Stanfors 2014; Sayer and Gornick 2012). One study in the United

³² Childcare is commonly categorized as unpaid work in time use research. While routine childcare (such as changing diapers, bathing, and feeding the child) is similar to other unpaid domestic activities, there are childcare activities that are qualitatively different in that they involve parental engagement that is effectively a time investment (such as help with homework, reading to the child, and going on outings such as sports events and museum visits), and even include dimensions of leisure (such as playing with the child). From an economic perspective, then, time with children has components both of consumption and investment, and is thus experienced as more rewarding than other domestic tasks.

³³ Contrary to much concern in the 1950s to 1970s, women's employment and the establishment of the dual-earner norm was not the end of the family. Contrary to expectations, today there is a general trend towards togetherness rather than alone time among individuals in dual-earner couples in both Sweden and the United States.

States using 1980s data found that while fathers in dual-job families were responsible for 40% of childcare during the week, they took on fully 47% on weekends (Yeung et al. 2001). Changing weekend patterns, starting with men spending more time with their children, extending to them taking up more domestic chores, together with a more general orientation towards family and togetherness, seem to be part of the explanation for changes in men's domestic roles in both Sweden and the United States (Neilson and Stanfors 2014, 2016).

7.4 Family leave in Sweden and the United States

There are two other indicators of men's increasing involvement in the private sphere. The most important is the growth in men's share of family leave, at least in countries such as Sweden that have state-supported paid leave. In 1974 Sweden introduced a gender-blind system, the first in the world, which included 6 months' parental leave with substantial earnings-related benefits (replacing 90% of pre-childbirth earnings). Since then, the length of paid leave has been gradually extended. In 1980 it included 9 months of earnings-related benefits, with an additional 3-month flat rate benefit. The leave scheme also became more flexible (e.g., with the opportunity to be on leave part-time and to save days until later). By 1989 paid leave had doubled to 12 months, with an additional 3-month flat rate benefit. (See Stanfors 2003 (chapter 4 and appendix) for an overview of the development of the parental leave scheme).

Relatively few men participated in the early years (0.5% of total days of paid parental leave in 1974), until the next major change in 1995, when one month of the total was designated for each parent. This meant that a month's financial benefit would be lost if one parent took all the leave; an additional month was added in 2002. As a result, parental leave is now used not only by nearly all mothers, but also by about 90% of fathers. While men continue to use less than half of the leave, the trend has been strongly upwards, to more than 23% of all leave days by 2010. Clearly, men's share increased significantly in response to the introduction of the "daddy months" (Duvander and Johansson 2012), as even employers recognised the absurdity of actually losing a government benefit if their male employees did not take leave (Haas and Hwang 2009).

The other indicator of change in Swedish men's participation in the private sphere of the family can be found in the development of employer policies supporting men taking family leave. In the early decades of the new policy, most of the fathers taking leave worked in the large Swedish public sector, relatively insulated from the competitive pressures faced by those in the private sector (Bygren and Duvander 2006). Since that time, however, encouraged by legislation, even workplaces in the private sector have developed formal policies and practices that allow men to take parental

leave, as shown by surveys of large Swedish corporations in 1993 and 2006 (Haas and Hwang 2009). At the first date, barely 2% of workplaces had policies for any but top management (32% of which were reported to have allowed such family leave); by 2006 41% of large corporations had policies supporting family leave (and 88% reported that men in top management took such leave).

The situation with regard to paid parental leave and workplace policies in support of it is very different in the United States. There is no national policy providing paid family leave, although The Family and Medical Leave Act of 1993 allows parents the opportunity to take up to 16 weeks of unpaid leave, with job protection. Because of various limitations, Ruhm (1997) estimates that only 20% of new mothers are covered. However, as with so many other family-related policies in the United States, there is considerable variation by state. Several states have provided a few weeks of paid maternity coverage around the delivery period through temporary disability programs (Milkman and Appelbaum 2013), and, more recently, three states have instituted full-blown family leave programs.

In 2004 the state of California implemented a program that provides up to six weeks of leave, with a salary replacement of 55% (up to a ceiling of \$1,011 per week in 2012), at no direct cost to employers. However, it provides neither job protection nor guaranteed medical insurance, and hence has experienced limited take-up.³⁴ Nevertheless, a recent study found that employers were quite accepting of the program and that men have increasingly enrolled (Milkman and Appelbaum 2013). The other programs, in New Jersey and Rhode Island, are more recent, and have not yet been studied.

Nevertheless, it seems likely that these programs will be expanded, both within these states and to additional states, as research has increasingly shown that they provide health benefits for both mothers (Chatterji and Markowitz 2008) and infants (Berger, Hill, and Waldfogel 2005). However, their expansion might be delayed because of the existing patchwork of benefits provided by the US private sector, by far the largest provider of parental leave. A national study of first-time mothers showed that leave is highly selective by social class, likely reflecting the jobs from which these mothers are taking leave. Women reported on the leave they were able to take for their first births, pooling sick leave, vacation days, and job-supported maternity leave, for the 2006–2008 period. Among those with a college degree or more education, two-thirds received some family leave, while only 19% of employed mothers with less than a high school degree had any family leave (Laughlin 2011).

³⁴ As many employers find that they can reduce the expenses of their own programs, however, workers at these firms are more likely to be informed and participate.

8. Concluding discussion

We focus in this paper on the growth and decline of the separate spheres that shaped the activities of men and women in Sweden and the United States over the years 1870 to 2010. These two countries provide a comparative frame for a double case study, allowing us to examine similarities and differences in depth. In particular, we can discern what is unique and what is more likely to be general.

The idea of the separate spheres helped account for the fundamental changes in the relationship between family and work wrought by the Industrial Revolution (Stone 1977), which shifted the main locus of men's economic production from the agricultural household economy to the factory, greatly reinforced the distinction between men's and women's work, and made the economic contributions of women invisible and rarely acknowledged in official statistics. The gender gap was at its greatest about 1950, when it was considered normal and even necessary.

We then attempt to account for women's move into paid activity, the first crack in the separate spheres, by examining the forces affecting women working for pay outside the home. We draw on standard economic literature (theoretical as well as empirical, including Goldin 1990, 2006; Costa 2000a), emphasizing that the family and its tasks need to be included in any theories of paid work and leisure. By doing so, we build a foundation for beginning to understand the early growth in men's move into caring for their children and their homes, the second crack in the separate spheres.

The same basic patterns appeared in both Sweden and the United States for most of the period, despite their many differences. For example, during the period 1870 to 1920 there was a vigorous expansion of labor market opportunities outside of agriculture. Although during the early period of industrialization working conditions were bad, hours long, and wages low, earnings were higher and more reliable than was common in agriculture. Men could take these jobs, leaving domestic responsibilities to their wives, because the value of women's time at home was greater than these new opportunities.

In the decades between 1930 and 1960, fertility and mortality trends meant that women's time horizon was lengthened and they could anticipate much more time for activities other than childcare and domestic work. Furthermore, this period saw an increasing demand for office workers, teachers, and nurses, jobs much more attractive to return to when children were older. These were important pre-conditions for an increase in married women's employment.

The third period (1960–1990) is often characterized as a revolution – in fact, the first half of the gender revolution. Basically, all the processes of change that had started to build up during the previous phases matured and became more important, including a strong expansion of jobs, particularly in the service sector. The average woman had

more education than before and families were small. With higher wages, more women could afford childcare. This was particularly important in Sweden, where women's dilemma of choosing between work and family was eased by the launch of government-sponsored family-friendly policies.

Nevertheless, although this view of the 'forest' of the two-part gender revolution seems compelling, it is clearly far from complete, given the remaining gender differences in the public sphere, not to mention the remaining even greater gender differences in men's and women's roles in the home. Does comparing the progress of the first half provide insight into how the second half is likely to develop?

There are several striking similarities between the two halves of the gender revolution. In each case, the early inroads were dismissed. The growth of women's employment was minimized, as they were not taking 'real' men's jobs. Women's earnings were denigrated as only pin money (in the United States throughout the 1960s it was rare for banks to include her earnings in qualifying couples for a home mortgage, because, after all, she might get pregnant, leave her job, and lose her income). The early growth in men's family role is still being dismissed (they are only doing childcare, not housework, and then only the 'fun stuff' with their children). Both halves started slowly, with early childhood experiences in the parental family playing a critical role (Waite and Stolzenberg 1976; Lahne and Wenne 2012).

But there are also important differences. Women have had much greater preparation in childhood for earning than men have had for taking on family care. Further, the contrast between Sweden and the United States suggests that policy can play a key role in facilitating progress in both halves of the gender revolution. Paid family leave, in particular, dramatically increased Swedish men's involvement with their children from an early age.

It would seem that the shattering of the separate spheres is a major gain for families and their members. Contemporary marriages are not only more egalitarian but are also more flexible than those in the past (Crompton 1999; Gershuny 2000; Sullivan 2006). Recent research shows that marital conflict decreases when men and women share housework (Coltrane 2000), while increasing women's satisfaction with their marriage (Amato et al. 2003) and sexual relationships (Gager and Yabiku 2010), as well as improving overall marital stability (Cooke 2006; Oláh and Gähler 2014). Nevertheless, the two halves of the gender revolution are out of balance, given that women have taken on more of men's roles and responsibilities than men have of women's. As the old bargain of trading his earnings for her domestic services has weakened this asymmetry has had costs, because he has not increased his services to match her increased earnings, reinforcing and perhaps initiating the family-weakening trends linked with the second demographic transition (especially union instability and lowest low fertility).

This analysis has many strengths, but also weaknesses. As a comparative and in-depth analysis, many of the factors that are unique to one case or the other become easier to separate from those that apply to both cases. Our detailed study of the ‘trees’ of each country’s history gives at least some inkling of the larger forest, of the workings out of industrialization and its effects on the family. Nevertheless, an even larger canvas of historical experience might reveal yet other family responses. Both countries share the northwest European household system in which new households are almost universally established upon marriage. In more corporate family systems, gender roles are likely to be more rigid as young couples get absorbed into the complex family essentially as servants, whatever future increase in status the passing of the older generation entails. Hence, gender can become more ‘essential’ (Brinton and Lee forthcoming) than in two-adult households where members are more likely to have to take on the tasks of the other gender under health, financial, or other pressures (Osterud 2012). Nevertheless, our analysis suggests that as other countries make decisions about facilitating these two halves of the gender revolution, the early application of policy could smooth the way, and perhaps avoid some of the costs that these two countries incurred, both in the century of the growth of the separate spheres and during its slow and unbalanced unraveling. Will they follow Sweden, which has been a leader in both halves of the gender revolution (Goldscheider, Bernhardt, and Lappegård 2015), or not?

References

- Abel, M. and Folbre, N. (1990). A methodology for revising estimates: Female market participation in the U.S. before 1940. *Historical Methods* 23(4): 167–176. doi:[10.1080/01615440.1990.10594207](https://doi.org/10.1080/01615440.1990.10594207).
- Aguiar, M. and Hurst, E. (2007). Measuring trends in leisure: The allocation of time over five decades. *Quarterly Journal of Economics* 122(3): 969–1006. doi:[10.1162/qjec.122.3.969](https://doi.org/10.1162/qjec.122.3.969).
- Aguiar, M. and Hurst, E. (2009). A summary of trends in American time allocation: 1965–2005. *Social Indicators Research* 93(1): 57–64. doi:[10.1007/s11205-008-9362-0](https://doi.org/10.1007/s11205-008-9362-0).
- Amato, P., Johnson, D., Booth, A., and Rogers, S. (2003). Continuity and change in marital quality between 1980 and 2000. *Journal of Marriage and the Family* 65(1): 1–22. doi:[10.1111/j.1741-3737.2003.00001.x](https://doi.org/10.1111/j.1741-3737.2003.00001.x).
- Ashton, T. (1970). *The Industrial Revolution, 1760–1830*. London: Oxford University Press.
- Atack, J. and Bateman, F. (1992). How long was the workday in 1880? *Journal of Economic History* 52(1): 129–160. doi:[10.1017/S0022050700010299](https://doi.org/10.1017/S0022050700010299).
- Atkinson, P. (2012). ‘Isn’t it time you were finishing?’ Women’s labor force participation and childbearing in England 1860–1920. *Feminist Economics* 18(4): 145–164. doi:[10.1080/13545701.2012.725942](https://doi.org/10.1080/13545701.2012.725942).
- Baxter, J. (1997). Gender equality and participation in housework: A cross-national perspective. *Journal of Comparative Family Studies* 28(3): 220–245.
- Becker, G. (1960). An economic analysis of fertility. In: *Demographic and economic change in developed countries*. New York: Columbia University Press for the National Bureau of Economic Research: 209–240.
- Becker, G. (1965). A theory of the allocation of time. *Economic Journal* 75(299): 493–517. doi:[10.2307/2228949](https://doi.org/10.2307/2228949).
- Becker, G. (1973). A theory of marriage: Part I. *Journal of Political Economy* 81(4): 813–846. doi:[10.1086/260084](https://doi.org/10.1086/260084).
- Becker, G. (1974). A theory of marriage: Part II. *Journal of Political Economy* 82(2): S11–S26. doi:[10.1086/260287](https://doi.org/10.1086/260287).
- Becker, G. (1981). *A treatise on the family*. Cambridge: Harvard University Press.

- Becker, G. (1985). Human capital, effort, and the sexual division of labor. *Journal of Labor Economics* 3(1): 33–58. doi:10.1086/298075.
- Becker, G., Landes, E., and Michael, R. (1977). An economic analysis of marital instability. *Journal of Political Economy* 85(6): 1141–1188. doi:10.1086/260631.
- Becker, G. and Lewis, G. (1974). Interaction between quantity and quality of children. In: Schultz, T. (ed.). *Economics of the family: Marriage, children, and human capital*. Cambridge: National Bureau of Economic Research: 81–90.
- Berg, M. and Hudson, P. (1992). Rehabilitating the industrial revolution. *Economic History Review* 45(1): 25–50. doi:10.2307/2598327.
- Berger, L., Hill, J., and Waldfogel, J. (2005). Maternity leave, early maternal employment and child health and development in the United States. *Economic Journal* 115(501): F29–47. doi:10.1111/j.0013-0133.2005.00971.x.
- Bianchi, S. (2000). Maternal employment and time with children. Dramatic change or surprising continuity? *Demography* 37(4): 410–414. doi:10.1353/dem.2000.0001.
- Bianchi, S., Milkie, M., Sayer, L., and Robinson, J. (2000). Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces* 79(1): 191–228. doi:10.1353/dem.2000.0001.
- Bianchi, S., Robinson, J., and Milkie, M. (2006). *Changing rhythms of American family life*. New York: Russell Sage Foundation.
- Bittman, M., England, P., Folbre, N., Sayer, L., and Matheson, G. (2003). When does gender trump money? Bargaining and time in household work. *American Journal of Sociology* 109(1): 186–214. doi:10.1086/378341.
- Björnberg, U. (2004). Making agreements and managing conflicts: Swedish dual earner couples in theory and practice. *Current Sociology* 52(1): 33–52. doi:10.1177/0011392104039313.
- Blau, F. (1998). The gender pay gap. In: Persson, I. and Jonung, C. (eds.). *Women's work and wages*. London: Routledge: 15–35. doi:10.4324/9780203057322.pt1.
- Blau, F., Ferber, M., and Winkler, A. (2013). *The economics of women, men and work*. Englewood Cliffs: Prentice-Hall.

- Bonke, J. and Esping-Andersen, G. (2011). Family investments in children: Productivities, preferences and parental child care. *European Sociological Review* 27(1): 45–55.
- Bose, C. (1984). Household resources and U.S. women's work: Factors affecting gainful employment at the turn of the century. *American Sociological Review* 49: 474–490. doi:10.2307/2095463.
- Boserup, E. (1970). *Woman's role in economic development*. London: Allen & Unwin.
- Breen, R. and Cooke, L. (2005). The persistence of the gendered division of domestic labour. *European Sociological Review* 21(1): 43–57.
- Bremmer, D. and Kesselring, R. (2004). Divorce and female labor force participation: Evidence from times-series data and cointegration. *Atlantic Economic Journal* 32(3): 175–190. doi:10.1007/BF02299436.
- Brines, J. (1994). Economic dependency, gender, and the division of labor at home. *American Journal of Sociology* 100(3): 652–688. doi:10.1086/230577.
- Brinton, M. and Lee, D. J. (forthcoming). Gender essentialism and low fertility in post-industrial societies. *Population and Development Review*.
- Bureau of Labor Statistics (2005). *Comparative civilian labor force statistics, 10 countries, 1960–2004*. Washington, D.C.: BLS.
- Burnette, J. (2008). *Gender, work and wages in Industrial Revolution Britain*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511495779.
- Bygren, M. and Duvander, A.-Z. (2006). Parents' work-place situation and fathers' parental leave use. *Journal of Marriage and Family* 68(2): 363–372. doi:10.1111/j.1741-3737.2006.00258.x.
- Cain, G. (1984). Women and work: Trends in time spent in housework (Discussion Paper 747-84). Madison: University of Wisconsin–Madison, Institute for Research on Poverty.
- Carlsson, S. (1966). *Den sociala omgrupperingen i Sverige efter 1866. Samhälle och riksdag: Historisk och statsvetenskaplig framställning. Del 1*. Stockholm: Almqvist & Wiksell.
- Carlsson, S. (1968). *Yrken och samhällsgrupper: Den sociala omgrupperingen i Sverige efter 1866*. Stockholm: Almqvist & Wiksell.
- Chandler, A. Jr. (1977). *The visible hand*. Cambridge: Belknap Press.

- Chatterji, P. and Markowitz, S. (2008). Family leave after childbirth and the health of new mothers (NBER Working Paper No. 14156). Cambridge: National Bureau of Economic Research. doi:10.3386/w14156.
- Cherlin, A. (1996). *Public and private families: An introduction*. New York: McGraw-Hill.
- Cherlin, A. (2012). Goode's world revolution and family patterns: A reconsideration at fifty years. *Population and Development Review* 38(4): 577–607. doi:10.1111/j.1728-4457.2012.00528.x.
- Chichilnisky, G. (2008). The gender gap. *Review of Development Economics* 12(4): 828–844. doi:10.4324/9780203927694.ch4.
- Cohn, S. (1985). *Process of occupational sex-typing: Feminization of clerical labor in Great Britain*. Philadelphia: Temple University Press.
- Coltrane, S. (2000). Research on household labor: Modeling and measuring the social embeddedness of routine family work. *Journal of Marriage and Family* 62(4): 1208–1233. doi:10.1111/j.1741-3737.2000.01208.x.
- Cooke, L.P. (2006). 'Doing' gender in context: Household bargaining and risk of divorce in Germany and the United States. *American Journal of Sociology* 112(6): 442–472. doi:10.1086/506417.
- Cooke, L.P. and Baxter, J. (2010). 'Families' in international context: Comparing institutional effects across Western societies. *Journal of Marriage and Family* 72(3): 516–536. doi:10.1111/j.1741-3737.2010.00716.x.
- Costa, D. (2000a). From mill town to board room: The rise of women's paid labor. *Journal of Economic Perspectives* 14(1): 101–122. doi:10.1257/jep.14.4.101.
- Costa, D. (2000b). The wage and the length of the work day: From the 1890s to 1991. *Journal of Labor Economics* 18(1): 156–181. doi:10.1086/209954.
- Cott, N. (1977). *The bonds of womanhood: 'Woman's sphere' in New England, 1780–1835*. New Haven: Yale University Press.
- Cowan, R. (1983). *More work for mother: The ironies of household technology from the open hearth to the microwave*. New York: Basic Books.
- Crafts, N. (1985). *British economic growth during the Industrial Revolution*. New York: Oxford University Press.

- Craig, L. (2006). Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender & Society* 20(2): 259–281. doi:10.1177/0891243205285212.
- Craig, L. and Mullan, K. (2010). Parenthood, gender, and work-family time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family* 72(5): 1344–1361. doi:10.1111/j.1741-3737.2010.00769.x.
- Crompton, R. (ed). (1999). *Restructuring gender relations and employment: The decline of the male breadwinner*. Oxford: Oxford University Press.
- Daly, K.J. (2001). Deconstructing family time: From ideology to lived experience. *Journal of Marriage and Family* 63(2): 283–294. doi:10.1111/j.1741-3737.2001.00283.x.
- Davis, K. (1945). The world demographic transition. *The Annals of the American Academy of Political and Social Science* 237(1): 1–11. doi:10.1177/000271624523700102.
- Demeny, P. (1968). Early fertility decline in Austria-Hungary: A lesson in demographic transition. *Daedalus* 97(2): 502–522.
- De Vries, J. (2008). *The Industrious Revolution: Consumer behavior and the household economy, 1650 to the present*. New York: Cambridge University Press. doi:10.1017/CBO9780511818196.
- Dew, J. (2009). Has the marital time cost of parenting changed over time? *Social Forces* 88(2): 519–541. doi:10.1353/sof.0.0273.
- Drìbe, M. and Stanfors, M. (2009). Does parenthood strengthen a traditional household division of labor? Evidence from Sweden. *Journal of Marriage and Family* 77(1): 33–45. doi:10.1111/j.1741-3737.2008.00578.x.
- Drìbe, M. and Stanfors, M. (2010). Family life in power couples: Continued childbearing and union stability among the educational elite in Sweden, 1991–2005. *Demographic Research* 23(30): 847–878. doi:10.4054/DemRes.2010.23.30.
- Durand, J. (1975). *The labor force in economic development*. New York: Princeton University Press.
- Duvander, A.-Z. and Johansson, M. (2012). What are the effects of reforms promoting fathers' parental leave use? *Journal of European Social Policy* 22(3): 319–330. doi:10.1177/0958928712440201.

- Engels, F. (2004) [1884]. *The origin of the family, private property and the state*. Newtown: Resistance Books.
- England, P. (2010). The gender revolution: Uneven and stalled. *Gender & Society* 24(2): 149–166. doi:10.1177/0891243210361475.
- Esping-Andersen, G. (2009). *The incomplete revolution: Adapting to women's new roles*. Cambridge: Polity Press.
- Evertsson, M. (2014). Gender ideology and the sharing of housework and child care in Sweden. *Journal of Family Issues* 35(7): 927–949. doi:10.1177/0192513X14522239.
- Evertsson, M. and Nermo, M. (2007). Changing resources and the division of housework: A longitudinal study of Swedish couples. *European Sociological Review* 23(4): 455–470. doi:10.1093/esr/jcm018.
- Fenstermaker, S. (1985). *The gender factory: The appointment of work in American households*. New York: Plenum Press.
- Fernandez, R., Fogli, A., and Olivetti, C. (2004). Mothers and sons: Preference formation and female labor force dynamics. *Quarterly Journal of Economics* 119(4): 1249–1299. doi:10.1162/0033553042476224.
- Fisher, K., Egerton, M., Gershuny, J., and Robinson, J. (2007). Gender convergence in the American Heritage Time Use Study (AHTUS). *Social Indicators Research* 82(1): 1–33. doi:10.1007/s11205-006-9017-y.
- Floud, R. and McCloskey, D. (eds.). (1981). *The economic history of Britain since 1700*. Cambridge: Cambridge University Press.
- Friedan, B. (1963). *The feminine mystique*. New York: Norton.
- Gager, C. and Yabiku, S. (2010). Who has the time? The relationship between household labor time and sexual frequency. *Journal of Family Issues* 31(2): 135–163. doi:10.1177/0192513X09348753.
- Garey, A. and Townsend, N. (1996). Kinship, courtship, and child maintenance law in Botswana. *Journal of Family and Economic Issues* 17(2): 189–203. doi:10.1007/BF02267046.
- Gauthier, A., Smeeding, T., and Furstenberg, F. Jr. (2004). Are parents investing less time in children? Trends in selected industrialized countries. *Population and Development Review* 30(4): 647–672. doi:10.1111/j.1728-4457.2004.00036.x.

- Gershuny, J. (2000). *Changing times: Work and leisure in postindustrial society*. Oxford: Oxford University Press.
- Gershuny, J. and Robinson, J. (1988). Historical changes in the household division of labor. *Demography* 25(4): 537–552. doi:10.2307/2061320.
- Gerson, K. (2010). *The unfinished revolution: Coming of age in a new era of gender, work, and family*. New York: Oxford University Press.
- Gimenez-Nadal, J. and Sevilla-Sanz, A. (2012). Trends in time allocation: A cross-country analysis. *European Economic Review* 56(6): 1338–1359. doi:10.1016/j.eurocorev.2012.02.011.
- Goldin, C. (1990). *Understanding the gender gap: An economic history of American women*. New York: Oxford University Press.
- Goldin, C. (1995). The U-shaped female labor force function in economic development and economic history. In: Schultz, T.P. (ed.). *Investment in women's human capital*. Chicago: University of Chicago Press: 61–90.
- Goldin, C. (2006). The quiet revolution that transformed women's employment, education and family. *The American Economic Review Papers and Proceedings* 96(1): 1–21. doi:10.3386/w11953.
- Goldin, C. and Katz, L. (2008). *The race between education and technology*. Cambridge: Belknap Press.
- Goldscheider, F., Bernhardt, E., and Lappegård, T. (2015). The gender revolution: A theoretical framework for understanding changing family and demographic behavior. *Population and Development Review* 41(2): 207–239. doi:10.1111/j.1728-4457.2015.00045.x.
- Goldscheider, F. and Kaufman, G. (2006). Willingness to stepparent: Attitudes toward partners who already have children. *Journal of Family Issues* 27(10): 1415–1436. doi:10.1177/0192513X06289646.
- Goldscheider, F. and Waite, L. (1991). *New families, no families? The transformation of the American home*. Berkeley: University of California Press.
- Goode, W. (1963). *World revolution and family patterns*. New York: Free Press.
- Goode, W. (1982). Why men resist. In: Thorne, B. and Yalom, M. (eds.). *Rethinking the family: Some feminist questions*. New York: Longman: 131–150.
- Goose, N. (2007). *Women's work in industrial England: Regional and local perspectives*. Hatfield: Local Population Studies.

- Greenstein, T. (1990). Marital disruption and the employment of married women. *Journal of Marriage and Family* 52(3): 657–676. doi:10.2307/352932.
- Greenstein, T. (1995). Gender ideology, marital disruption, and the employment of married women. *Journal of Marriage and Family* 57(1): 31–42. doi:10.2307/353814.
- Greenstein, T. (2000). Economic dependence, gender, and the division of labor in the home: A replication and extension. *Journal of Marriage and Family* 62(2): 322–335. doi:10.1111/j.1741-3737.2000.00322.x.
- Greenwood, J., Seshadri, A., and Yorukoglu, M. (2005). Engines of liberation. *Review of Economic Studies* 72(1): 109–133. doi:10.1111/0034-6527.00326.
- Haas, L. and Hwang, P. (2009). Is fatherhood becoming more visible at work? Trends in corporate support for fathers taking parental leave in Sweden. *Fathering* 7(3): 303–321. doi:10.3149/fth.0703.303.
- Haines, M. (1996). Long-term marriage patterns in the United States from colonial times to the present. *History of the Family* 1(1): 15–39. doi:10.3386/h0080.
- Hagberg, J.-E. (1986). *Tekniken i kvinnornas händer: Hushållsteknik under tjugo- och trettioatalen*. Malmö: Liber.
- Hajnal, J. (1965). European marriage patterns in perspective. In: Glass, D. and Eversley, D. (eds.). *Population in history: Essays in historical demography*. Chicago: Aldine: 101–143.
- Hartwell, R. (1971). *The Industrial Revolution and economic growth*. London: Methuen.
- Hays, S. (1996). *The cultural contradictions of motherhood*. New Haven: Yale University Press.
- Hernandez, D. (1993). *America's children: Resources from family, government, and the economy*. New York: Russell Sage Foundation.
- Hochschild, A. and Machung, A. (1989). *The second shift: Working parents and the revolution at home*. London: Piatkus.
- Hofferth, S. and Goldscheider, F. (2015). Fatherhood. In: Wright, J.D. (ed.). *International encyclopedia of the social and behavioral sciences*. Oxford: Elsevier: 840–843. doi:10.1016/B978-0-08-097086-8.31103-5.

- Hofferth, S. and Sandberg, J. (2001). How American children spend their time. *Journal of Marriage and the Family* 63(2): 295–308. doi:10.1111/j.1741-3737.2001.00295.x.
- Hoffman, L. and Nye, I. (1974). *Working mothers: An evaluative review of the consequences for wife, husband, and child*. San Francisco: Jossey-Bass Publishers.
- Hook, J. (2006). Care in context: Men’s unpaid work in 20 countries, 1965–2003. *American Sociological Review* 71(4): 639–660. doi:10.1177/000312240607100406.
- Hook, J. (2012). Working on the weekend: Fathers’ time with children in the United Kingdom. *Journal of Marriage and Family* 74(4): 631–642. doi:10.1111/j.1741-3737.2012.00986.x.
- Hudson, P. (1995). Women and industrialization. In: Purvis, J. (ed.). *Women’s history: Britain, 1850–1945*. London: Routledge: 23–50.
- Humphries, J. (1991). ‘Lurking in the wings’ ... women in the historiography of the industrial revolution. *Business and Economic History Review* 20: 32–44.
- Humphries, J. (2010). *Childhood and child labour in the British Industrial Revolution*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511780455.
- Humphries, J. and Sarasúa, C. (2012). Off the record: Reconstructing women’s labor force participation in the European past. *Feminist Economics* 18(1): 39–67.
- Jacobsen, J. (2007). *The economics of gender*. New York: Wiley-Blackwell.
- Johnson, W. and Skinner, J. (1986). Labor supply and marital separation. *The American Economic Review* 76(3): 455–469.
- Jones, L. and Tertilt, M. (2008). An economic history of fertility in the United States: 1826–1960. In: Rupert, P. (ed.). *Frontiers of family economics*. Bingley: Emerald Group Publishing: 165–230. doi:10.1016/S1574-0129(08)00005-7.
- Juster, T. and Stafford, F. (1985). *Time goods and well-being*. Ann Arbor: University of Michigan Press.
- Kan, M.Y., Sullivan, O., and Gershuny, J. (2011). Gender convergence in domestic work: Discerning the effects of interactional and institutional barriers from large-scale data. *Sociology* 45(2): 234–251. doi:10.1177/0038038510394014.
- Kessler-Harris, A. (1982). *Out to work: A history of wage-earning women*. New York: Oxford University Press.

- Kohler, H.-P., Billari, F., and Ortega, J.A. (2002). The emergence of lowest-low fertility in Europe during the 1990s. *Population and Development Review* 28(4): 641–680. doi:10.1111/j.1728-4457.2002.00641.x.
- Krueger, A., Kahneman, D., Schkade, D., Schwarz, N., and Stone, A. (2009). National time accounting: The currency of life. In: Krueger, A. (ed.). *Measuring the subjective well-being of nations: National accounts of time use and well-being*. Chicago: University of Chicago Press: 9–86. doi:10.7208/chicago/9780226454573.001.0001.
- Kuznets, S. (1957). Quantitative aspects of the economic growth of nations: II. Industrial distribution of national product and labor forces. *Economic Development and Cultural Change* V(Supplement): 1–111. doi:10.1086/449740.
- Lahne, O. and Wenne, R. (2012). Hur skapas jämställda attityder? Effekten av egen utbildning, föräldrars utbildning och föräldrars fördelning av hushållsarbete (YAPS Working Paper WP 01/12). Stockholm: Stockholm University.
- Landes, D. (1969). *The unbound prometheus: Technological change and industrial development in Western Europe from 1750 to the present*. Cambridge: Cambridge University Press.
- La Rossa, R. (1997). *The modernization of fatherhood: A social and political history*. Chicago: University of Chicago Press.
- Laughlin, L. (2011). Maternity leave and employment patterns of first-time mothers: 1961–2008 (Current Population Report P-70-128). Washington, D.C.: US Census Bureau.
- Lesthaeghe, R. (1983). A century of demographic and cultural change in Western Europe. *Population and Development Review* 9(3): 411–435. doi:10.2307/1973316.
- Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review* 36(2): 211–251. doi:10.1111/j.1728-4457.2010.00328.x.
- Lindert, P. (2004). *Growing public: Social spending and economic growth since the eighteenth century. Volume 1. The story*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511510717.
- Lindert, P. and Williamson, J. (1983). English workers' living standards during the Industrial Revolution: A new look. *Economic History Review* 36(1): 1–25. doi:10.2307/2598895.

- Löfgren, O. (1974). Family and household among Scandinavian peasants: An exploratory essay. *Etnologia Scandinavica* 4: 17–53.
- Mammen, K. and Paxson, C. (2000). Women's work and economic development. *Journal of Economic Perspectives* 14(1): 141–164. doi:10.1257/jep.14.4.141.
- Marini, M. and Shelton, B. (1993). Measuring household work: Recent experience in the United States. *Social Science Research* 22(4): 361–382. doi:10.1006/ssre.1993.1018.
- Matthews, G. (1987). *'Just a housewife': The rise and fall of domesticity in America*. New York: Oxford University Press.
- Michael, R. (1985). Consequences of the rise in female labor force participation rates: Questions and probes. *Journal of Labor Economics* 3(1): S117–S146. doi:10.1086/298078.
- Milkman, R. and Appelbaum, E. (2013). *Unfinished business: Paid family leave in California and the future of U.S. work-family policy*. Ithaca: Cornell University Press. doi:10.7591/cornell/9780801452383.001.0001.
- Mokyr, J. (1985). *The Industrial Revolution*. Totowa: Rowman & Allanheld.
- Mokyr, J. (2000). Why was there more work for mother? Technological change and the household, 1880–1930. *Journal of Economic History* 60(1): 1–40. doi:10.1017/S0022050700024633.
- Morgan, J., Sirageldin, I., and Baerwaldt, N. (1966). *Productive Americans: A study of how individuals contribute to economic progress*. Ann Arbor: University of Michigan Press.
- Neilson, J. and Stanfors, M. (2014). It's about time! Gender, parenthood and household divisions of labor under different welfare regimes. *Journal of Family Issues* 35(8): 1066–1088. doi:10.1177/0192513X14522240.
- Neilson, J. and Stanfors, M. (2016). Time alone or together? Trends and tradeoffs among dual-earner couples in Sweden 1990–2010. Lund: Centre for Economic Demography.
http://portal.research.lu.se/portal/files/11374707/Converging_times_jeffrey_neilson_2016.pdf.
- Notestein, F. (1945). Population: The long view. In: Schultz, T. (ed.). *Food for the world*. Chicago: Chicago University Press: 36–57.

- Oláh, L. (2015). Changing families in the European Union: Trends and policy implications. Paper prepared for the United Nations Expert Group Meeting “Family policy development: Achievements and challenges” in New York, May 14–15, 2015.
- Oláh, L. and Gähler, M. (2014). Gender equality perceptions, division of paid and unpaid work, and partnership dissolution in Sweden. *Social Forces* 93(2): 571–594. doi:10.1093/sf/sou066.
- Oppenheimer, V. (1970). *The female labor force in the United States: Demographic and economic factors governing its growth and changing composition*. Berkeley: University of California.
- Oppenheimer, V. (1988). A theory of marriage timing. *American Journal of Sociology* 94(3): 563–591. doi:10.1086/229030.
- Oppenheimer, V. (1997). Women’s employment and the gain to marriage: The specialization and trading model. *Annual Review of Sociology* 23(1): 431–453. doi:10.1146/annurev.soc.23.1.431.
- Osterud, G. (1991). *Bonds of community: The lives of farm women in nineteenth-century New York*. Ithaca: Cornell University Press.
- Osterud, G. (2012). *Putting the barn before the house: Women and family farming in early twentieth-century New York*. Ithaca: Cornell University Press. doi:10.7591/cornell/9780801450280.001.0001.
- Parsons, T. (1953). A revised analytical approach to the theory of social stratification. In: Bendix, R. and Lipset, M. (eds.). *Class, status and power*. New York: Free Press: 92–125.
- Parsons, T. (1959). The social structure of the family. In: Anshen, R. (ed.). *The family: Its function and destiny*. New York: Harper & Row Publishers: 241–274.
- Pinchbeck, I. (1930). *Women workers in the Industrial Revolution*. London: Routledge.
- Pleck, J. (2010). Paternal involvement: Revised conceptualization and theoretical linkages with child outcomes. In: Lamb, M. (ed.). *The role of the father in child development*. New York: Wiley: 67–107.
- Pollard, S. (1981). *Peaceful conquest: The industrialization of Europe 1760–1970*. Oxford: Oxford University Press.

- Raley, S., Bianchi, S., and Wang, W. (2012). When do fathers care? Mothers' economic contribution and fathers' involvement in child care. *American Journal of Sociology* 117(5): 1422–1459. doi:10.1086/663354.
- Ramey, V. (2009). Time spent in home production in the twentieth-century United States: New estimates from old data. *The Journal of Economic History* 69(1): 1–47. doi:10.1017/S0022050709000333.
- Richards, E. (1974). Women in the British economy since about 1700: An interpretation. *History* 59(3): 337–357. doi:10.1111/j.1468-229X.1974.tb02221.x.
- Robinson, J. and Godbey, G. (1999). *Time for life*. University Park: Pennsylvania State University Press.
- Rosaldo, M. and Lamphere, L. (eds). (1974). *Women, culture and society*. Stanford: Stanford University Press.
- Roth, P. (1969). *Portnoy's complaint*. New York: Random House.
- Rotundo, A. (1991). *American manhood: Transformations in masculinity from the revolution to the modern era*. New York: Basic Books.
- Ruggles, S. (1997). The rise of divorce and separation in the United States, 1880–1990. *Demography* 34(4): 455–466. doi:10.2307/3038300.
- Ruhm, C. (1997). Policy watch: The family and medical leave act. *Journal of Economic Perspectives* 11(1): 175–186.
- Sayer, L. (2005). Gender, time, and inequality: Trends in women's and men's paid work, unpaid work and free time. *Social Forces* 84(1): 285–303. doi:10.1353/sof.2005.0126.
- Sayer, L. and Bianchi, S. (2000). Women's economic independence and the probability of divorce: A review and reexamination. *Journal of Family Issues* 21(7): 906–943. doi:10.1177/019251300021007005.
- Sayer, L., England P., Bittman, M., and Bianchi, S. (2009). How long is the second (plus first) shift? Gender differences in paid, unpaid and total work time in Australia and the United States. *Journal of Comparative Family Studies* 40(4): 523–545.
- Sayer, L. and Gornick, J. (2012). Cross-national variation in the influence of employment hours on child care time. *European Sociological Review* 28(4): 421–442.

- Schön, L. (2011). *Sweden's road to modernity: An economic history*. Stockholm: SNS Förlag.
- SOU (1939). 6. *Underlättandet av kvinnornas arbete i de mindre lanthemmen: Betänkande med förslag avgivet den 25 februari 1939 av 1937 års utredning angående arbetsförhållandena vid det mindre jordbruket*. Stockholm: K.L. Beckmans boktryckeri.
- SOU (1947). 46. *Betänkande angående familjeliv och hemarbete avgivet av utredningen för hem- och familjefrågor*. Stockholm: K.L. Beckmans boktryckeri.
- SOU (1965). 65. *Hemarbete och servicekontakter: Två kartläggande undersökningar utförda av Familjeberedningen*. Stockholm: K.L. Beckmans tryckerier.
- South, S. (2001). Time-dependent effects of wives' employment on marital dissolution. *American Sociological Review* 66(2): 226–245. doi:10.2307/2657416.
- Smith, B.G. (ed.) (2008). *The Oxford encyclopedia of women in world history*. New York: Oxford University Press.
- Stanfors, M. (2003). *Education, labor force participation and changing fertility patterns: A Study of women and socioeconomic change in twentieth-century Sweden*. Stockholm: Almqvist & Wiksell International.
- Stanfors, M., Leunig, T., Eriksson, B., and Karlsson, T. (2014). Gender, productivity and the nature of work and pay: Evidence from the late nineteenth-century tobacco industry. *Economic History Review* 67(1): 48–65. doi:10.1111/1468-0289.12017.
- Statistics Sweden (1999). *Befolkningsutvecklingen under 250 år: Historisk statistik för Sverige*. Demografiska rapporter 1992:2. Stockholm: Statistiska centralbyrån.
- Stone, L. (1977). *The family, sex and marriage in England 1500–1800*. New York: Harper and Row.
- Strecker, E. (1946). *Their mother's sons: A psychiatrist examines an American problem*. Philadelphia: Lippincott.
- Stycos, M. and Weller, R. (1967). Female working roles and fertility. *Demography* 4(1): 210–217. doi:10.2307/2060362.
- Sullivan, O. (2006). *Changing gender relations, changing families: Tracing the pace of change over time*. New York: Rowman & Littlefield.

- Tilly, L. and Scott, J. (1975). Women's work and the family in nineteenth-century Europe. *Comparative Studies in Society and History* 17(1): 36–64. doi:10.1017/S0010417500007635.
- Tilly, L. and Scott, J. (1987). *Women, work and family*. London: Routledge.
- Thomson, E. and Bernhardt, E. (2010). Education, values and cohabitation in Sweden. *Marriage and Family Review* 46(1): 1–21. doi:10.1080/01494921003648431.
- Thompson, W. (1929). Population. *American Journal of Sociology* 34(6): 959–975. doi:10.1086/214874.
- Thornton, A. (2005). *Reading history sideways: The fallacy and enduring impact of the developmental paradigm on family life*. Chicago: University of Chicago Press.
- Treas, J. and Drobnic, S. (eds). (2010). *Dividing the domestic: Men, women and household work in comparative perspective*. Stanford: Stanford University Press. doi:10.11126/stanford/9780804763578.001.0001.
- United States Bureau of the Census (1975). *Historical Statistics of the United States: Colonial times to 1970*. Washington, D.C.: United States Bureau of the Census.
- U.S. Bureau of Labor Statistics (1999). *Handbook of US Labor Statistics*. Washington, D.C.: Bureau of Labor Statistics.
- Van de Kaa, D. (1987). Europe's second demographic transition. Washington, D.C.: Population Reference Bureau.
- Vanek, J. (1974). Time spent in housework. *Scientific American* 231(5): 116–120. doi:10.1038/scientificamerican1174-116.
- Waite, L. and Stolzenberg, R. (1976). Intended childbearing and labor force participation of young women: Insights from nonrecursive models. *American Sociological Review* 41(2): 235–252. doi:10.2307/2094471.
- Waring, M. (1988). *If women counted: A new feminist economics*. San Francisco: Harper & Row.
- Warren, E. and Tyagi, A. (2004). *The two-income trap: Why middle-class parents are going broke*. New York: Basic Books.
- Watkins, S., Menken, J., and Bongaarts, J. (1987). Demographic welter foundations of family change. *American Sociological Review* 52(3): 346–358. doi:10.2307/2095354.
- Wylie, P. (1942). *A generation of vipers*. New York: Rinehart.

Yeung, J., Sandberg, J., Davis-Kean, P., and Hofferth, S. (2001). Children's time with fathers in intact families. *Journal of Marriage and Family* 63(1): 136–154. [doi:10.1111/j.1741-3737.2001.00136.x](https://doi.org/10.1111/j.1741-3737.2001.00136.x).

Zick, C. and Bryant, K. (1996). A new look at parents' time spent in child care: Primary and secondary time use. *Social Science Research* 25(3): 260–280. [doi:10.1006/ssre.1996.0012](https://doi.org/10.1006/ssre.1996.0012).