

1940 and 1981, when the data end, wage and hours issues once again rose in importance, while strikes over union organization diminished in importance.

References

- Currie, Janet, and Joseph Ferrie. 2000. "The Law and Labor Strife in the United States, 1881–1894." *Journal of Economic History* 60 (1): 42–66.
- Freeman, Richard B. 1985. "Why Are Unions Faring Poorly in NLRB Representation Elections?" In Thomas A. Kochan, editor. *Challenges and Choices Facing American Labor*. MIT Press.
- Freeman, Richard B. 1998. "Spurts in Union Growth: Defining Moments and Social Processes." In Michael D. Bordo, Claudia Goldin, and Eugene White, editors. *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*. University of Chicago Press.
- Freeman, Richard B., and James L. Medoff. 1984. *What Do Unions Do?* Basic Books.
- Lewis, H. Gregg. 1963. *Unionism and Relative Wages in the United States: An Empirical Inquiry*. University of Chicago Press.
- Pencavel, John, and Catherine E. Hartsog. 1984. "A Reconsideration of the Effects of Unionism on Relative Wages and Employment in the United States, 1920–1980." *Journal of Labor Economics* 2 (2): 193–232.
- Ulman, Lloyd. 1955. *The Rise of the National Trade Union*. Harvard University Press.
- Wolman, Leo. 1936. *Ebb and Flow in Trade Unionism*. National Bureau of Economic Research, number 30.

HOUSEHOLD PRODUCTION

Lee A. Craig

Household production refers to the manufacture of goods and the provision of services for oneself and for members of one's household. Judged in terms of the way people spend their time, household production is arguably the largest sector of the U.S. economy. In a review article, F. Thomas Juster and Frank P. Stafford (1991) show that in recent decades, household production has accounted for more than half of the total working hours of adult women and almost a quarter of those of men. In the more distant past, household production consumed an even larger proportion of workers' time. Thus, the structure and change of the economics of the household are important components of long-term economic growth. Typically, economic data, such as prices and quantities, are the result of market transactions and are therefore relatively easy to observe. Unfortunately, this is frequently not the case with production conducted within the household, and it takes creative detective work to develop quantitative measures of change in household production over time.

The most important activities associated with household production typically include cooking, cleaning, child care, and home manufacturing. Cooking refers to the entire range of homemaking activities associated with meal preparation. These include shopping, putting food away, setting the table, preparing and serving food, washing the dishes, and other cleaning activities. Cleaning includes tasks such as caring for the house, doing the laundry, and mowing the lawn (Hill 1985). Child care, including education and training, has always been an important component of household production in households with children. Finally, although household manufacturing no longer plays an important role in the market

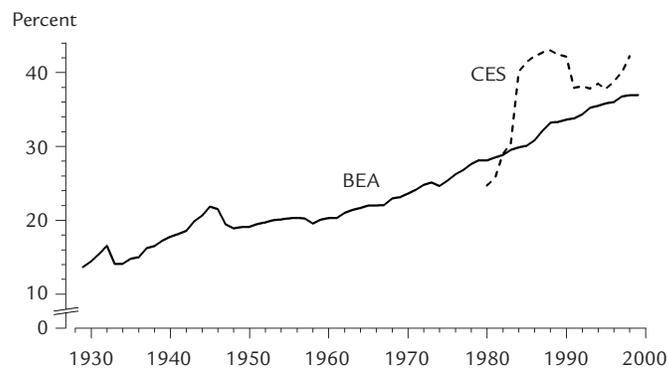


FIGURE Ba-W Consumption expenditures on food away from home as a percentage of total food expenditures: 1929–1999

Sources

Aggregate consumption expenditures, based on data from the U.S. Bureau of Economic Analysis (BEA): series Cd156 expressed as a percentage of series Cd154.

Expenditures of consumer units, based on the Consumer Expenditure Survey (CES): series Cd431 expressed as a percentage of series Cd429.

economy, in the past, significant amounts of manufacturing, especially of textiles, were also part of household production.

With the growth of the American economy, the production of many goods and services moved out of the household and into the market. Many of the goods and services that were once provided by mothers for themselves and their families in their own homes are today provided by highly specialized firms that produce for profit and distribute their goods for sale. One readily available measure of this movement is expenditures on food eaten away from home (see Figure Ba-W). In 1929, when these data were first compiled, such expenditures accounted for roughly 15 percent of all food expenditures. In the most recent years for which we have data, the share is between two and three times larger than this earlier figure. The care and feeding of boarders was another important household activity a century ago. Table Ba5082–5085 indicates that almost 12 percent of all households cared for one or more boarders or lodgers at that time.¹

Over the same time period, other types of production moved away from the market and *into* the household. Some of this shift was associated with the move toward more extensive home ownership. Thus, as an increasing fraction of American households owned their own homes, the maintenance of residential property moved from the rental market sector to the household. Structural maintenance and home repairs, landscaping, and grounds maintenance increasingly became household rather than landlord activities. Data displayed in Table Dc653–669 illustrate the importance of this shift. The large decline in paid domestic help as a share of household expenditures represents another transfer into the home of goods and services that were previously produced in the market (see Figure Ba-X). Despite these changes, scholars generally conclude that on balance, the movement of production out of the household has overshadowed the movement of former market activities into the household.

Social trends also have a profound impact on household production. The long-term decline in fertility is a case in point. In 1800, total fertility for white women was above 7,000 per thousand,

¹ For a qualitative discussion of boarders, see Strasser (1982), Chapter 8.

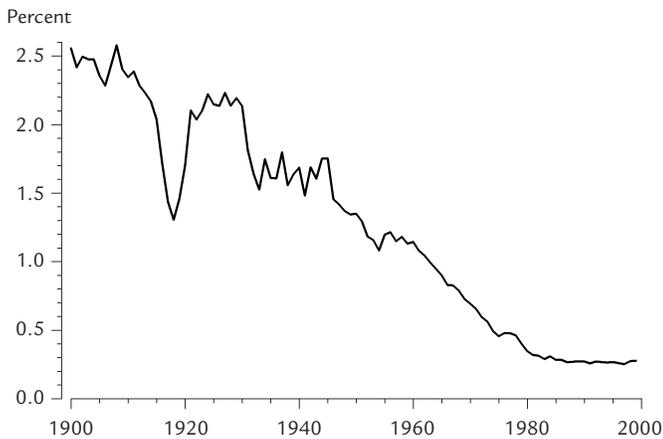


FIGURE Ba-X Consumption expenditures on domestic service as a percentage of total expenditures: 1900–1999

Sources

Through 1928: series Cd37 as a percentage of series Cd1; thereafter, series Cd192 as a percentage of series Cd153.

implying more than seven births per woman. Two hundred years later, total fertility for this group was about 2,000 (Table Ab52–117). The shift means that instead of fourteen years of pregnancy and nursing children (through the age of one year), the average woman now spends four years. She enjoys comparable reductions in the housework that attends the presence of young children in the home. Improved health and wealth of the older population has also lifted the burden of household production for mid-age adults. In 1850, 37 percent of males and 48 percent of females sixty-five years of age and older lived with their children or other relatives. Today the comparable rates are 4 percent and 6 percent, respectively (Table Ae245–319).

Inasmuch as household production does not pass through the market, its value is difficult to measure; it is not included in the standard statistical indicators of the performance of the economy. Gross domestic product (GDP), for example, includes only market-produced goods and services; it explicitly excludes the nonmarket production of the household. Household production is also excluded from most government output and trade statistics. Thus, for example, series Cd8 – consumption expenditures for clothing – measures only factory-produced clothing. Home-sewn clothing is omitted entirely. Similarly, the labor that goes into household production is omitted from official measures of the workforce. Thus, full-time homemakers, including those who report sixty-hour workweeks, are classified as “not in the labor force,” according to the official statistics.

The omission of household production and household labor from official statistics means that the true output of the economy and the size of the workforce are underestimated. For example, Nancy Folbre and Barnett Wagman (1993) estimate that in 1800, the total output of the economy would have been somewhere between a fifth and a third larger than standard estimates had the value of household production been included. Moreover, when production and workers move out of the household and into the market, they move from the unmeasured to the measured realms. As the predominant transformation of the economy has been from household to market production, this finding, which has been confirmed by Lee Craig (1991, 1993), means that official statistics overstate the

growth of the economy and of the labor force. Had household production and employment been properly included at earlier dates, the growth of the economy over time would look considerably less spectacular.

The statistics on household production displayed in this chapter measure the magnitude – as well as changes in the volume and value – of household production at different points in U.S. history. They are also attempts to indicate something of the significance of household production for the economic and social history of the United States. Unfortunately, they are often poor measures. They capture only a small portion of total household production, and they measure with wide margins of possible error. They omit important differences between home and market production in the nature and quality of the product and the conditions of work. For example, store-bought clothing, bread, and cookies differ from their home-sewn and home-baked counterparts, and home care of the elderly is different from that provided in a nursing home, yet these differences are not reflected here. Furthermore, cooking for one’s family is different from cooking in a restaurant or from working in an office, earning money, and taking the family out to eat; yet the data are silent on these issues, too. Thus, the reader should use particular caution in handling these data.

Household Manufactures

In the eighteenth century, household production included a wide range of manufacturing activity in addition to the provision of services that predominate today. Historian Thomas Dublin, for example, conjectures that a typical New England farm housewife in this era probably

milked the family cows, made butter and cheese, tended the family’s garden plot, and sewed the children’s clothes as they outgrew one set after another. She may also have spun woolen or linen yarn and woven cloth for her growing family, for the local historian remarks on the common appearance of spinning wheels and looms in the “homes of overworked farmers’ wives” before the coming of textile factories. She may also have woven cloth or braided palm-leaf hats for local storekeepers or middlemen, for members of New Hampshire families in this period commonly pursued these outwork occupations to earn credits toward necessary store purchases. (Dublin 1994, p. 4)

The earliest systematic accounting of the quantity and value of goods produced in the home was conducted by Rolla Tryon. His primary objective was to illustrate the dramatic shift in the production of key goods and services from the home to the factory (Tryon 1966). Of the many goods and services that had been home produced for centuries, four remained quite prominent in the mid-nineteenth century: textiles, particularly clothing; food; boarding for nonhousehold members; and child care. Tables Ba4999–5090 contain data directly related to the household supply of these goods and services.

The data on home manufacturing in Table Ba4999–5078 reflect both industrialization and the westward migration. One can see the effect of industrialization in the decline of household production in both total and per capita terms in the older states. For example, in New Hampshire, the value of home manufactures per capita declined from \$9.22 in 1810 to \$1.89 in 1840 and then to \$0.78 in 1860, which corresponds to an average annual decline of roughly 5 percent. To put this figure in perspective, consider

that GDP per capita was growing by about 1 percent per annum over the same period. Although we do not know the overall size of the household sector, it is safe to conclude that a substantial proportion of the growth of market-produced goods was a result of the expansion of industries, such as textiles, which were displacing home-produced goods. Even by Tryon's narrow definition of household manufactures, the total value of household production remained relatively large, and stood at \$1.18 per capita (more than 1 percent of per capita GDP) as late as 1850. A similar share of output today would amount to more than \$100 billion.

The continuing importance of household production was related to the westward movement of population and economic activity. This migration is reflected in the fact that in states such as Tennessee and Mississippi, the total value of home manufactures increased substantially between 1810 and 1860 (by 3.5 percent annually in Tennessee and 1.3 percent in Mississippi). This increase occurred even as the per capita figures were falling, albeit at a much slower rate than those for the Eastern states. For example, during this period, per capita home manufactures were falling by 2.6 percent per year in Tennessee and by 1.6 percent in Mississippi.

Because of the prominence of the textile industry in early industrialization, Tryon paid particular attention to its shift from home to factory. The spinning of yarn and the weaving of cloth were among the first manufacturing activities to move out of the home and into the factory on a large scale. When the federal census collected statistics on the number of yards of different types of cloth spun in home manufactures throughout the United States in 1810, it found an average of 10.4 yards of cloth per person. However, the values varied widely across regions. In the largely urban District of Columbia, only 0.2 yard was produced per person; in largely rural New Hampshire, production totaled 19.9 yards per person.

By Tryon's definition of home manufactures, textiles composed 95 percent of the U.S. total for this category in 1810, although, as the previous example suggests, this percentage varied substantially from state to state (Tryon 1966, p. 166). Table Ba5079–5081 illustrates the relationship between the rise of the factory and the decline of household production. The table shows the overall home production of textiles, the per capita production, and the number of manufacturers in New York State between 1820 and 1855. Both overall and per capita production rose until 1825, but the subsequent growth of factories, and factory production, was so rapid that by 1855, the home-manufactured output per person was less than 3 percent of what it had been just thirty years earlier.

Clearly, this rapid decline in the quantity of home-manufactured textile products had much to do with the rise of factory-produced goods, and the regional differences previously noted were closely related to the regional character of industrialization in the United States. Not surprisingly, these two phenomena – the rise of the factory in certain regions and the transformation of the household economy – were inextricably linked. Studies of U.S. industrialization show that the early industrialization of the Northeast relative to the South resulted from the relatively low productivity of women and children in market production in the preindustrial (Northeastern) economy (Goldin and Sokoloff 1984; Craig and Field-Hendry 1993).

Despite the decline in home-produced textile products before the Civil War, particularly in the Northeast, as late as 1869 almost half (49 percent) of U.S. clothing was still home produced, and the vast majority (90 percent) of the total value of food consumed was produced in the home. Although the declines in the volume

of home-produced food after that date were steady, they were not spectacular. With respect to textiles, by 1933, 15 percent of clothing was still home produced – an average annual compounded rate of decline after 1869 of roughly 2 percent. It is interesting to note that there was no acceleration in the decline of the home-produced share of overall clothing production, with the data showing almost exactly the same rate of decline from 1869 to 1900 and from 1900 to 1933. By comparison, the share of food produced in the home fell more slowly (1.3 percent per annum), but the decline accelerated over time, declining at less than 1 percent per annum before 1900 and by nearly 2 percent thereafter (calculated from Shaw 1947, pp. 30–52, 108, 174).

Causes and Consequences

Just as the decline in home manufacturing before the Civil War was related to economic developments both in and out of the household, the postbellum declines had causes that emanated from the market as well as from within the household. In particular, the evolving economic role of women (and, to a certain extent, of children) increasingly led women to be more prominent in the market economy. The most obvious indicator of this prominence is the increase in the labor force participation rate (LFPR) of women. Between 1890 and 1930, the LFPR of women rose by nearly one third, from 18.9 percent to 24.8 percent (Goldin 1990). Separating the causality from the consequences of such a conspicuous and multifaceted phenomenon as the rise of the female LFPR is beyond the scope of this essay. However, three related matters – evolving property rights, technological change, and the growth of child care outside the home – reveal a great deal about changes in household production.

One would expect that at the margin, the migration from home to market work would be influenced by the expected returns in the two activities. The returns to women from entering the market would increase as women increasingly came to possess the property right in their own personages – that is, they gained control over their own labor and earnings. In the past, the law did not always recognize the property rights of women. Table Ba5091–5095 contains three indicators of the evolution of women's property rights. These include the year each state passed legislation permitting women to (1) manage or otherwise control their own estates, (2) control their earnings, and (3) enter into business without their husband's consent. Note that prior to the Civil War, only a handful of states permitted women to control their own earnings, but by 1900, almost all states had done so.

In addition, the evolution of the economic roles of women was influenced by changes in both the capital intensity and technological change in household production. Mechanical appliances, particularly those powered by electricity, greatly increased the productivity of household workers, which in turn freed considerable amounts of time for other pursuits, including market work.²

Finally, since time immemorial, the economic role of women has been linked with that of children. However, in the nineteenth century, the economic roles of women and children began to diverge. As women increasingly left the household to enter the marketplace, children left the household to go to school (see Table Ba340–354 for employment and Table Bc7–18 for

² For a history of household technology and its impact on work both in and outside of the home, see Cowan (1976).

school enrollment trends). As the market activity of women accelerated in the twentieth century, even the care of preschool children became a market activity. Little statistical evidence concerning child care outside the home exists before the 1950s, but since that time we can document a relatively rapid development of this market. Table Ba5086–5090 contains data on child care arrangements for working mothers since 1959. The most striking feature of the data in the table is that between 1959 and 1994, the number of children who were receiving such care grew by 4.5 percent per year, while the population of children under five actually fell. Compared with the rates of change of other indicators discussed here, the shift in child care from the home to the market must be considered dramatic.

References

- Cowan, Ruth Schwartz. 1976. "The 'Industrial Revolution' in the Home: Household Technology and Social Change in the 20th Century." *Technology and Culture* 17 (January): 58–72.
- Craig, Lee A. 1991. "The Value of Household Labor in Antebellum Northern Agriculture." *Journal of Economic History* 51 (March): 67–82.
- Craig, Lee A. 1993. *To Sow One Acre More: Childbearing and Farm Productivity in the Antebellum North*. Johns Hopkins University Press.
- Craig, Lee A., and Elizabeth Field-Hendry. 1993. "Industrialization and the Earnings Gap." *Explorations in Economic History* 30 (1): 60–80.
- Dublin, Thomas. 1994. *Transforming Women's Work: New England Lives in the Industrial Revolution*. Cornell University Press.
- Folbre, Nancy, and Barnet Wagman. 1993. "Counting Housework: New Estimates of Real Product in the United States, 1800–1860." *Journal of Economic History* 53 (2): 275–88.
- Goldin, Claudia. 1990. *Understanding the Gender Gap: An Economic History of American Women*. Oxford University Press.
- Goldin, Claudia, and Kenneth Sokoloff. 1984. "The Relative Productivity Hypothesis of Industrialization: The American Case." *Quarterly Journal of Economics* 98 (3): 461–88.
- Hill, Martha S. 1985. "Patterns of Time Use." In F. Thomas Juster and Frank P. Stafford, editors. *Time, Goods, and Well-Being*. Survey Research Center, Institute for Social Research, University of Michigan.
- Juster, F. Thomas, and Frank P. Stafford. 1991. "The Allocation of Time: Empirical Findings, Behavioral Models, and Problems of Measurement." *Journal of Economic Literature* 29 (2): 471–522.
- Shaw, William Howard. 1947. *Value of Commodity Output since 1869*. National Bureau of Economic Research.
- Strasser, Susan. 1982. *Never Done: A History of American Housework*. Pantheon Books.
- Tryon, Rolla Milton. 1966. "Household Manufactures in the United States, 1640–1860." Ph.D. dissertation, University of Chicago, 1916; reprinted by Augustus M. Kelley.