

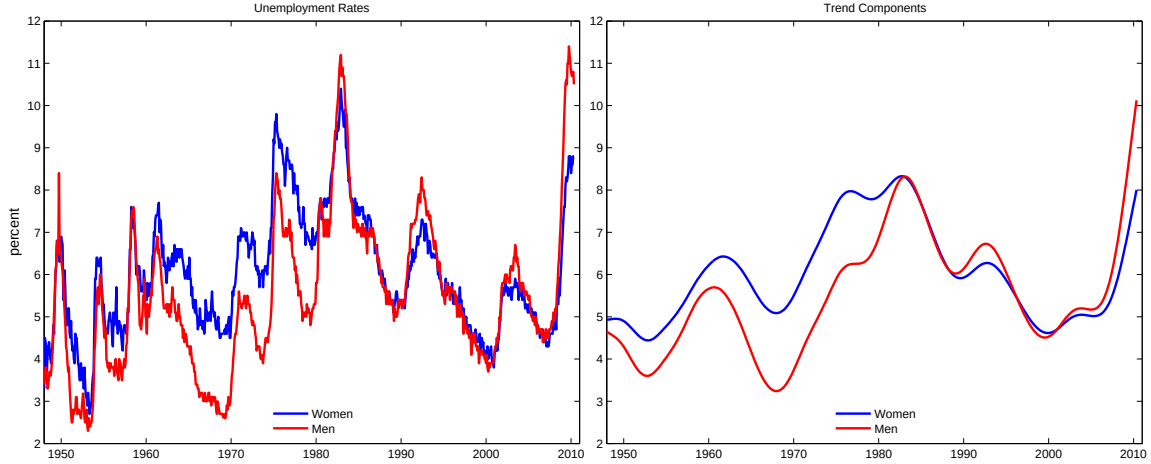
The Gender Unemployment Gap

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This paper studies the gender differences in unemployment from a long run perspective. Figure 1 shows the evolution of unemployment rates by gender for 1948-2010. The following interesting patterns emerge. The unemployment gender gap, defined as the difference between female and male rates, is positive until 1980, though the gap tends to close during periods of high unemployment. After 1980, the unemployment gender gap virtually disappears, except during recessions when men's unemployment exceeds women's. This phenomenon is particularly pronounced for the last recession.

Further examination of the data confirms the visual impression. The gender gap in trend unemployment rates, which starts positive and is particularly pronounced in the 1960s and 1970s, vanishes by 1980. Instead, the cyclical properties of the gender gap in unemployment have been steady over the last 60 years, with male unemployment rising more than female unemployment during recessions. This suggest that the evolution of the unemployment gender gap is driven by structural forces.

FIGURE 1: Unemployment by Gender



Source: Bureau of Labor Statistics.

Analysis

We first examine whether the sizable changes in the composition of the labor force can explain the evolution of the unemployment gender gap. The growth in women's education relative to men and the changes in the age structure by gender can only partially account for its evolution, suggesting that compositional changes are not the only factors driving this phenomenon. Our hypothesis is that the historically positive gender unemployment gap was due to women's lower labor market attachment, as well as lower skills. Women experience more frequent spells of non-participation (Royalty, 1998), especially in childbearing years (Goldin, 1990). With labor market frictions, intermittency in participation would increase average unemployment for women relative to men. Moreover, as is well known (Mincer, 1991), low skill workers have higher incidence of unemployment.

To quantitatively assess this hypothesis, we examine a search and matching model of unemployment, where agents vary by skill and gender. Agents' decisions are influenced by their individual opportunity cost

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of being in the labor force, which differs by gender. This variable can be interpreted simply as the value of leisure or the value of home production for an individual worker. Three distinct labor market states can occur: employment, unemployment and non-participation. Employed agents face an exogenous separation shock or can quit their current position into non-participation. Unemployed workers can search for a job or choose not to participate. Agents who are out of the labor force can choose to search for a job or remain non-participants.

There are separate job markets for each skill group, and wages are determined by bargaining within each skill group. Workers with higher quit rates, who generate lower surplus for the firm, receive lower wages. This mechanism endogenously generates gender wage gaps, within each skill group. Gender differences in the skill composition and in the distribution of the opportunity cost of being in the labor force determine the gender gaps in labor force participation and unemployment in equilibrium.

We assess the contribution of women’s growing labor market attachment and the increase in their skill level relative to men, to the evolution of the gender unemployment gap with a calibrated version of this model. We match the average skill distribution, the participation rate and the unemployment rate by gender between 1995-2005.² We then simulate the model between 1970 and 1995 by allowing time variation in the gender differences in the opportunity cost of being in the labor force, as well as gender differences in skill. We vary the gender differences in the opportunity cost of working to match the historical evolution of labor force participation by gender, while we use the empirical distribution skills by gender as a model input. We then compare the gender unemployment gap implied by the model to the one observed in the data and quantitatively evaluate the contribution of women’s increased attachment to the workforce to the decline the gender unemployment gap.

Contribution and Broader Implications

The main goal of this paper is to provide a framework to understand the determinants of the gender gap in unemployment. Such a framework is clearly essential to explore a number of important questions on policies relating to unemployment. One obvious example is unemployment insurance. Most analyses do not take into account gender differences in the opportunity cost of working and how those may affect the design of an optimal benefit system. Taxation also influences unemployment and participation outcomes. Allowing for gender differences in the responses to tax reforms enables a better assessment of their impact both at the individual and at the household level. Another important dimension of policy is stabilization. Gender gaps in unemployment have received a lot of attention recently, since men’s unemployment rate grew substantially more than women’s during the last recession. Our analysis suggests that this outcome is just the result of the ongoing convergence in labor market performance by gender, as the amplitude of the cyclical fluctuations in unemployment has always been greater for men than women in the post-war period.

Gender differences in unemployment rates can also help rationalize international differences in labor outcomes. Manning, Azmat and Guell (2006) have shown that cross-country variation in unemployment rates is mostly driven by differences in women’s unemployment. With the framework we develop in this paper, we can begin to examine the factors that influence these differences.

²This choice is motivated by the fact that the unemployment gender gap was zero on average in this time period. This implies that the calibrated gender differences in the opportunity cost of working reflect gender differences in participation only.

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