

The Gender Gap through the Great Recession

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The NBER Business Cycle Dating Committee defined the latest recession to hit the United States, now deemed the Great Recession, as lasting between December 2007 and June 2009. In this study, we consider the effect of this particular recession on one notable outcome that may have been impacted: the gender wage gap. Today within the United States, this type of gap still exists in the wages and earnings between males and females, although it is currently only half of what it was nearly three decades ago within the 1980s (Weinberger and Kuhn, 2010).

cession brings the wages of males and females closer together. For example, holding labor supply constant, a recession should result in a greater negative shock to the labor demand of industries that are highly cyclical. This downward shift in demand causes the wages in these particular industries to decrease more than others. As it turns out, males are overly represented in these highly cyclical industries, such as manufacturing, whereas women are overly represented in the less cyclical industries, like services. Because male-represented industries are more susceptible to these economic downturns, average male wages may decrease more than average female wages in a recession, thereby closing the gap between them.

Aller and Arce (2001) found this type of gender wage gap reduction to happen in Spain during the 1990-1994 recession. They argue that this reduction was mainly due to a significant decrease in the activity of the male-dominated manufacturing industry, while during this same period, the female-dominated service sector seemed impervious to the business cycle. It should be noted that this will only hold true so long as there is downward flexibility in wages over the recession. Without this effect, there may be a decrease in employment in manufacturing, but no effect on the gender wage ratio. Dunkelberg, Scott, and Chow (2010) suggest that wages were more flexible than ever during the 2008 recession in the U.S., so we should see an effect here.

We analyze this issue for the U.S. using data from the Current Population Survey (CPS) to fit the span of the Great Recession. In particular, we are interested in three segments of time: the periods before, during, and after the Great Recession occurred. The March survey responses spanning from 2007 to 2008 are used for the before period, March 2008 to 2009 are used for the Great Recession itself, and March 2009 to 2010 are used as the after period. Using the CPS data, we can then look at the annual change in the gender wage gap over each of these periods.

For our identification strategy, we aggregate the individual observations of the CPS at the state-level, with the 48 contiguous states and DC serving as our independent local labor markets. We then rank these states in two ways. The first ranking consists of a descending order based on the percentage of employed individuals that work in male-dominated industries, which include construction, manufacturing, and mining. The second ranking consists of an ascending order based on the percentage of employed individuals that work in female-dominated industries,

which include retail trade and services. The gender gap outcomes for the top 20 states in each ranking are then compared with the bottom 20 states in each ranking, to form two difference-in-difference estimates of the differential effect on the gender gap ratio for each period. Given that there is a gap in states between the top 20 and bottom 20, there should be a natural separation between the two groups. State-fixed effects and the impact of right-to-work states are also controlled for in all of our regressions.

We are attempting to see what happens to the gender gap ratio in the particular states whose industry composition favors males over females, relative to other states throughout these different periods, including the Great Recession. If our theory is correct, a reduction in the gap should only take place during the recession itself. The preliminary evidence suggests that this recession has had a gender wage gap reducing effect in the states with the largest concentrations of male-dominated industries versus other types of states.

This paper will not be suggesting that wage equality should be improved by inducing a recession, of course. Rather, it merely uses the industrial composition of states to see if the gender wage gap may be reduced during a recession. This effect is distinct from an overall reduction in the wage gap due to general improvements in efficiency between males and females as labor inputs or national policies directed at wage equity. But taken together, the results will demonstrate the fact that, when implementing or evaluating a wage equality policy, the business cycle fluctuations and the existing industry composition of states should be taken into account. Otherwise, the analysis of trends in the gender wage gap may be biased.