When More Women Join the Workforce, Wages Rise — Including for Men

by Amanda Weinstein

JANUARY 31, 2018
The increase of women in the paid workforce was arguably the most significant change in the economy in the past century. In the U.S., women’s participation in the labor market has nearly doubled, from 34% of working age women (age 16 and older) in the labor force in 1950 to almost 57% in 2016. When it passed 50% in 1978, working women became the norm.

Yet although the female labor force participation rate has been rising steadily in the country, it has not done so evenly across cities. In places like Gadsden, Alabama, and Punta Gorda, Florida, less than half of working age women (46% and 42%, respectively) were in the paid workforce in 2010; cities like Madison, Wisconsin, had 73% and Fargo, North Dakota, had more than 75% (the highest in the nation) of women in the workforce. There is also significant variation within states: In California women’s labor force participation in 2010 was 62% in San Francisco but just 57% in San Diego; in Pennsylvania it was 62% in Philadelphia but only 57% in Pittsburgh.

Previous research has explored the factors that create these disparities – from regional differences in gender role attitudes to varying local business climates and commute times. But not much is known about the effects of these disparities, and how women’s workforce participation affects cities’ economic growth and productivity. Indeed, most of the conversation about women and work revolves around how the economy impacts women; we know comparatively less about how women in turn affect work and the economy.

Looking at Census data from 1980 to 2010, I studied how women’s participation in the workforce influences wage growth in approximately 250 U.S. metropolitan areas. Across various model specifications, I consistently found that as more women joined the workforce, they helped make cities more productive and increased wages. This paper was recently published in the Journal of Regional Science.
It may seem intuitive to say that a larger workforce would lead to higher productivity and wages over time (in the last century we’ve experienced rising GDP per capita as the labor force has grown), but economic theory actually suggests that two things could happen: If more women are choosing to work because attitudes about work have changed, then this would increase labor supply and actually reduce wages as more people compete for jobs. But if women are joining the workforce because there are more job opportunities, then we should see wages increase because the shift in the labor participation is caused by increased demand. In either case, as more women become incorporated into the economy, the skill portfolio of the labor force may also change.

For Every 10% Increase in Women Working, We See a 5% Increase in Wages

To determine what happened to the U.S. economy as more women started working, I calculated labor force statistics, from Census data and American Community Survey data, on how many women were working in a given city in each decade, and what the median hourly real wages were in that area. I used different approaches to control for factors that might affect my results (such as the size of the workforce and education level) and to determine the direction of causality.

The chart below shows the relationship between a metropolitan area’s female labor force participation rate (FLFPR) in 1980 and its median real wage growth from 1980 to 2010. The trend line indicates that during this time period, places with higher FLFPR experienced higher real wage growth than otherwise similar cities. For example, in 1980, 59.5% of women in Minneapolis were in the labor force, compared with just 53.4% in Columbus, Ohio. That more than 6% difference led to over 4% higher median wage growth for Minneapolis, which saw median wages grow $0.54/hour more than Columbus from 1980 to 2010.
This increase is significant, as 40% of the cities in our sample experienced no real wage growth in these three decades — in other words, the median worker in 40% of cities is no better off in 2010 than they were in 1980. This deserves a brief side note: Despite increases in GDP per capita, real wages for many workers have been stagnating in recent decades. The gains in economic growth have been disproportionately accruing to the top of the income distribution, as broader economic trends (such as globalization and technological change) have led to increasing inequality in the U.S. and a hollowing out of middle-skill jobs. These trends
have particularly hurt men, such as those in manufacturing, while women have largely benefited from the growing service sector. Most cities, about 60% of our sample, experienced some real wage growth despite these national trends, due in part to higher FLFPR. And for a full-time person in Minneapolis working 40 hours per week, that $0.54 gain amounts to being better off by nearly $1,123 per year. Over a 45-year career, that amounts to a gain of over $50,000.

However, the chart also shows that some cities saw median real wages go down despite more women entering the workforce, such as Anchorage, Alaska, and Flint, Michigan – and some cities saw growth in median real wages despite low levels of FLFPR, such as Fort Myers, Florida. This is because there are many other factors that affect wage growth in cities aside from the female labor force participation rate. For example, some cities were poised to experience wage growth during this period regardless of how many women entered the workforce. Cities like San Jose, California, and Boston, with more-robust economies and more high-growth industries, expected to see higher wage growth than cities like Flint, which saw its main industry decline and its economy shrink. We controlled for previous wage growth in cities, and used national industry trends to predict expected wage growth in cities, to make sure we were looking at the effect of women in the workforce and not that of broader industry trends (such as more women choosing to work in flourishing cities).

Similarly, cities may have higher FLFPR if they have a higher share of female-dominated industries and occupations like nursing and other service industries. Many male-dominated industries such as manufacturing experienced decline during these decades, which hit cities like Detroit and Flint particularly hard and limited job opportunities for men and women. Because lower FLFPR in such cities may be due to this decline, we controlled for industry and occupation shares (e.g., the share of city employment in manufacturing) to separate this from the effect FLFPR would have on economic growth.
After accounting for various other factors that may affect FLFPR and wage growth (e.g., average commute times and housing prices), my models suggest that every 10% increase in the female labor force participation rate in a metropolitan area is associated with a 5% increase in median real wages— for both men and women. (This is a conservative estimate, as some models suggest an even higher increase in median real wages, of up to 13% for every 10% increase in FLFPR.) If we continue to use Minneapolis as an example, after factoring in the city’s industry structure, the median worker there still saw wages increase $0.40/hour, or $832 per year, between 1980 and 2010, compared to workers in Columbus.

**Why Working Women Are a Rising Tide That Lifts All Boats**

Why would having more women working raise median wages? There are a few potential reasons: women’s participation in the labor force could be increasing the city’s overall productivity, as women may replace less productive men (evidenced by lower male labor force participation rates in recent decades and higher wages for the men that remain in the market). As women surpassed men in obtaining college degrees in 1982, they could have also raised the overall skill level in the area or introduced a different set of complementary skills.

When women are incorporated into the economy fairly (i.e., when they don’t face discrimination or aren’t segregated into low-paying, female-dominated occupations), the effect they have on cities is even larger. While FLFPR across metropolitan areas have increased in every decade between 1980 and 2010, the largest gains by far were made in the 1980s, when participation rates increased nearly 7 percentage points (compared with a gain of just 1 percentage point from 2000 to 2010). During the 1980s, women also made the largest gains in shrinking the gender wage gap (which decreased by nearly 6% between 1980 and 1990, but by only 3% between 2000 and 2010) and in reducing occupation and industry sex segregation (as more women
entered traditionally male-dominated industries and occupations). During this
decade, women also had the largest economic impact — with every 10% increase in
FLFPR associated with real wage increases of more than 8%.

Let’s go back to our example to see what this means: In 1980 not only did Minneapolis
have higher FLFPR compared to Columbus, but women also made up a larger share of
its overall labor force and overall employment, and it had lower gender segregation by
occupation and industry. When I looked at women’s share of employment (percent of
the overall workforce that is female) instead of the female labor force participation
rate (percent of women who are in the workforce), I found that every 10% increase in
women’s share of total employment is associated with real wage increases of nearly
8%.

This is consistent with other analyses that have looked at female labor force
participation across countries: as women’s share of the labor force increases by 10%,
real wage growth increases by nearly 10%. This result also indicates that the impact of
increasing women’s labor force participation is distinct from the impact of increasing
men’s labor force participation; in fact, a 10% increase in male labor force
participation rates is associated with a 3% decrease in median real wages, likely due to
a shift in the supply curve — more men are competing for the same jobs.

Although this research answers some questions, it leaves many unanswered. My
research suggests that firms in cities are becoming more productive by hiring more
women, but the exact mechanism is unclear. Women may increase the
competitiveness of labor markets, giving firms the option to choose from a bigger,
more qualified pool of applicants. They may also be providing firms with a unique set
of skills and perspectives that men do not provide. Women’s inclusion in these office
spaces may help firms better represent their customers and understand their customer’s needs, as women now make the vast majority of household decisions and control the lion’s share of consumer spending.

However, the female labor force participation rate in the U.S. has been stagnating since 2000. It peaked in 1999 at 60%, but has since declined to about 57%. This trend is in stark contrast to other OECD countries where women’s labor force participation has continued to grow. This suggests that women’s attitudes about work are changing, perhaps as women in the U.S. find it increasingly difficult to balance both work and family. Paid parental leave policies, affordable child care policies, and more flexible work schedules may help more women stay in the labor force during and after their childbearing years.

When fewer women participate in the labor force, the economy operates without the talents and abilities of 51% of the population. If cities want to take advantage of the real wage gains that result from more women in the workforce, they should ask women what they want and find ways to meet their needs.

Amanda Weinstein is an assistant professor in the Department of Economics within the College of Business Administration at the University of Akron. Her research focuses on the determinants of urban and regional economic development. She received her PhD in 2013 from The Ohio State University.
Steve Sailer 8 months ago

Nah, you've got causality backwards. Expensive cost of living cities like San Francisco have high wages but repel families where the wife wants to drop out of the labor force for awhile and stay home with her kids. Cheaper cities like Columbus attract families looking to be able to afford having only the father work.

JOIN THE CONVERSATION

POSTING GUIDELINES

We hope the conversations that take place on HBR.org will be energetic, constructive, and thought-provoking. To comment, readers must sign in or register. And to ensure the quality of the discussion, our moderating team will review all comments and may edit them for clarity, length, and relevance. Comments that are overly promotional, mean-spirited, or off-topic may be deleted per the moderators' judgment. All postings become the property of Harvard Business Publishing.