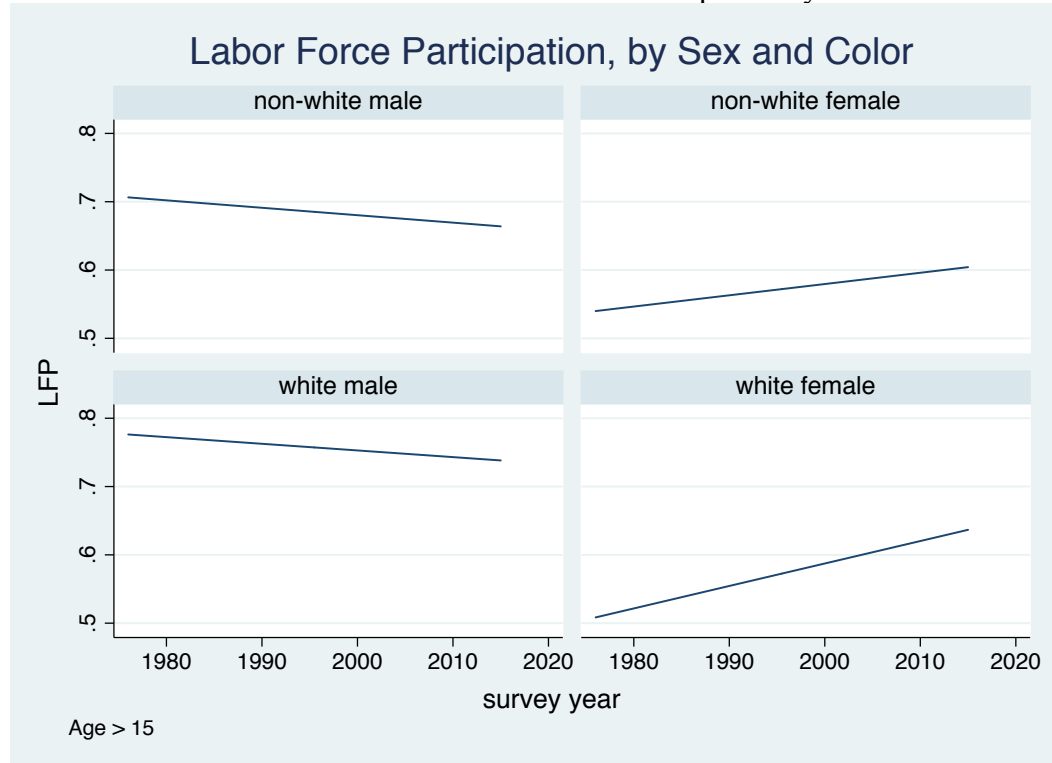


(a) **Labor Force Participation**

Based on the data, the proportion of the U.S. population older than 15 years old participating in the labor force increased between the years of 1976 and 2015. This increase was not evenly distributed among all subsets of the population, however; the proportion of men in the labor force declined while the proportion of women in the labor force increased over the sample period.

Similarly, the proportion of white individuals in the labor force grew faster than the proportion of individuals in the labor force who identified as non-white (Figure 1). The difference between the slope coefficients is statistically significant ($p < 0.01$). It appears that labor force participation increased on the aggregate over the four decades largely because of entry into the labor force by women, and particularly white women.

Figure 1: A Linear Predictions Model for Labor Force Participation by Sex and Skin Color



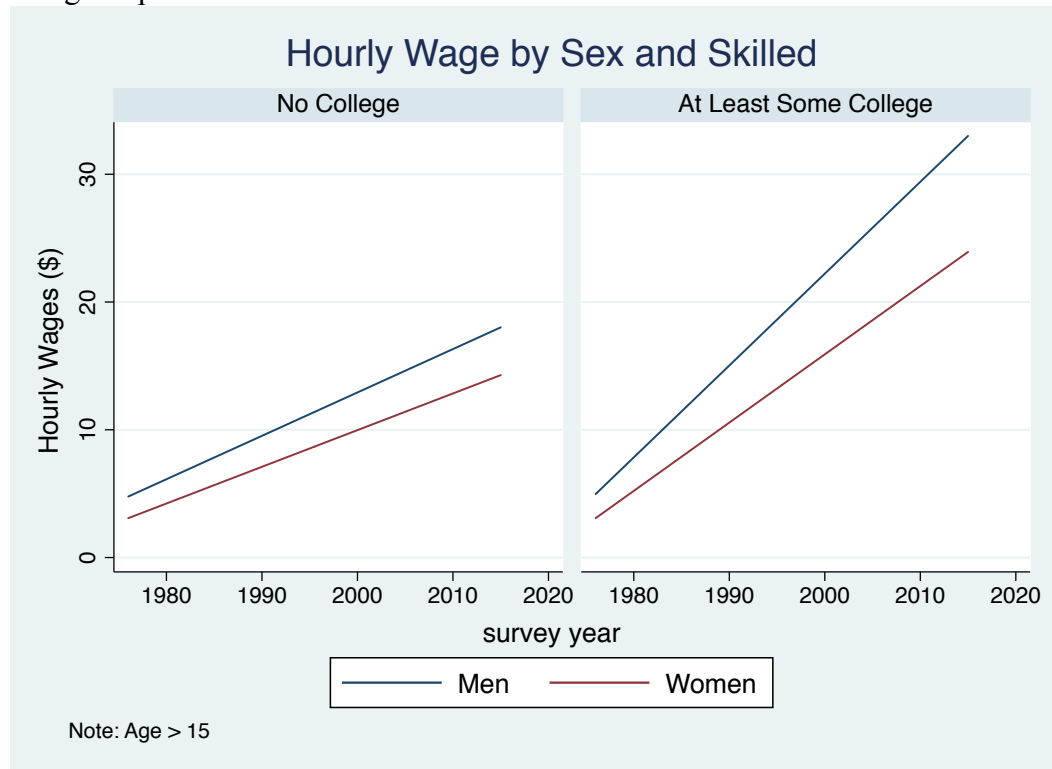
STATA code: `twoway lfit lfp year if age > 15, by(white sex)`

Hourly Wages

Hourly wages increased overall for the U.S. population from 1976 to 2015, but this was not uniform among all subsets of the population. The most notable differences are that hourly wages increased more for men than for women, and hourly wages increased more for skilled than for unskilled workers (Figure 2). The graph shows that, on average, hourly wages between skilled and unskilled workers were

almost identical in 1976 but diverged over time to a difference of almost \$10 an hour in 2015.

Figure 2: A Linear Predictions Model for Hourly Wage Earnings in Dollars by Sex and Having Some College Experience

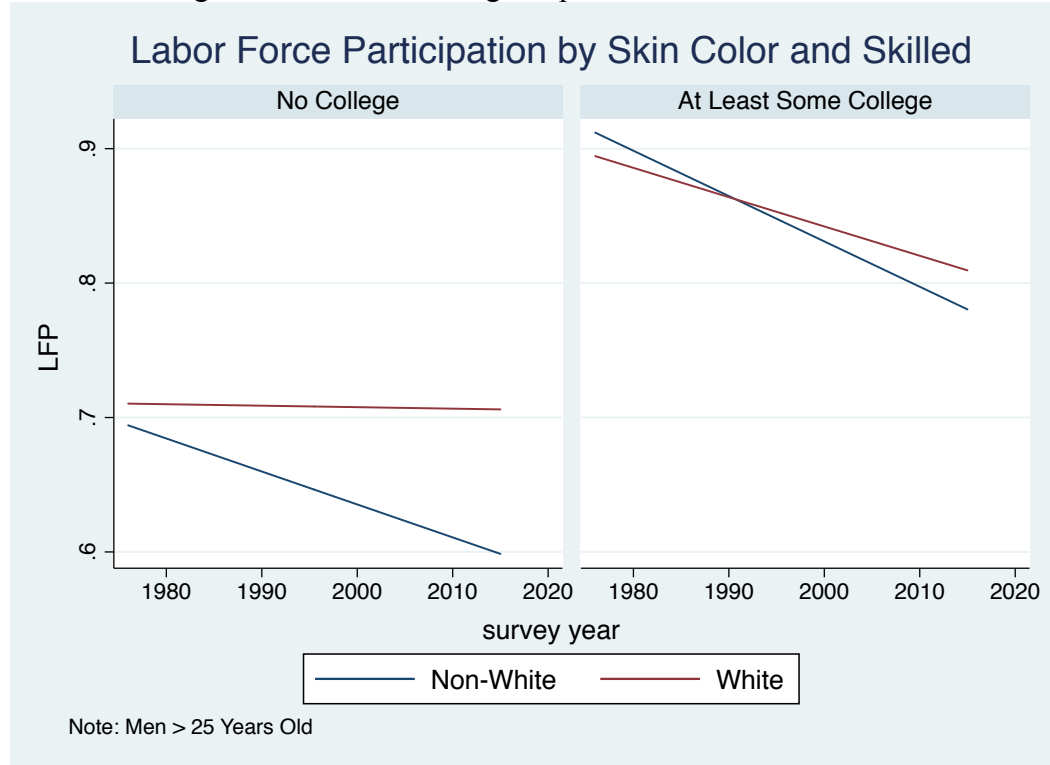


twoway (lfit wage year if age > 15 & sex == 1, by(skilled)) (lfit wage year if age > 15 & sex == 2, by(skilled))

(b) LFP and Hourly Wages for Men Older Than 25 Years Old

For men older than 25 years old, labor force participation decreased from 1976 to 2015. Men older than 25 years old who had at least some college education experienced a sharper decline in labor force participation than those who had no college education. The difference between the slope coefficients is statistically significant ($p < 0.01$). The group of adult men who experienced the greatest percentage change in labor force participation were non-white, unskilled men, as shown in Figure 3. For white unskilled men, labor force participation stayed about the same over time.

Figure 3: A Linear Predictions Model for Labor Force Participation for Men > 25 Years Old, by Skin Color and Having At Least Some College Experience



twoway (lfit lfp year if age > 25 & sex == 1 & white == 0, by(skilled)) (lfit lfp year if age > 25 & sex == 1 & white == 1, by(skilled))

c) **Explanation and Discussion**

Job growth and economic development may help explain the increase in labor force participation over the observed period, and more women may have joined the labor force because of a shift in cultural norms. Greater access to education as well as the natural inflation rate may help to explain the observed increase in wages for men and women. It seems plausible that skilled workers' wages grew faster than unskilled workers' wages as certain industries in the U.S. become more highly skilled and the number of manufacturing jobs fell.

Some questions I would want to address are:

- Why has the proportion of men participating in the labor force fallen over time, most dramatically for non-white, unskilled men?
 - I suspect that technological advancement may help explain this decline. To test this hypothesis, I would compare average educational attainment between whites and non-white individuals in the sample over time. I would also calculate a measure of technological growth to compare its effect on labor force participation for white and non-white men.
- Is there a wage gap between men and women who have the same occupation?
 - This would help determine whether the observed difference between wages for men and women is not exclusively a result of different occupational choices. I

would look at occupational data in the dataset to see if women who have the same occupation as men are paid less on average.

- What is the effect of having children on labor force participation for men and women?
 - I suspect that having children has a greater effect on labor force participation for women than it does for men. I would need to gather data on the number of children for individuals in the dataset to test this hypothesis.