

Assessing Five Statements about the Economic Impact of COVID-19 on Women

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ABSTRACT: I provide fact-checking on some of the year's most important headlines regarding the gendered impact of the pandemic, in particular the "she-cession," hours of childcare, aggregate female labor force participation rates, and changes in the fraction "at work" and in the labor force by parental status, education, and race. I also discuss the longer-run impact of the pandemic on women, their families, and workplaces.

As schools, daycares, businesses, and offices open and as we begin to take off our masks and breathe deeply, it is prudent to look back in order to look ahead. We must assess the damage, as well as acknowledge the resiliency. No one was untouched by the pandemic. Much of the deepest economic pain was experienced by women: mothers, Black women, single moms, caregivers, and daughters. And many of these women may bear the marks of the pandemic for some time.

But there is also the possibility that there will be gains. The cost of workplace flexibility will probably fall as workers, firms, managers, clients, and customers use what they have learned during lockdown to work more effectively as we open up. If an M&A can be done without the expensive trip to Tokyo, parents will benefit from less travel time and firms will profit from lower costs. Given the current division of household labor, mothers will reap the greatest returns and will be able to take on positions that once required considerable time away from home.

The economic downturn that resulted from our self-induced COVID coma has had economic effects different from those of any other recession in US history. This time really has been different. Never before have we needed to shut down the economy to get it running again. Never before has a recession impacted women more than it has impacted men, in various ways. Never before have those working on the frontlines been asked to bring danger back into their homes, not even in the history of our military. And the caring sectors of education and health have never been more intertwined with the economic sectors of production and services.¹

¹ The Great Influenza of 1918 was not accompanied or followed by an economic recession of any magnitude, possibly because of World War I or because the economy was not placed in as extreme a coma as ours has been. Plus, the virus may have rapidly mutated to a less virulent form and ultimately transitioned to the endemic seasonal flu we have had since. An interesting historical

After decades of increased labor force participation across the twentieth century, women just prior to March 2020 were about 47 percent of the total US labor force.² It is because of their great importance to the labor force that issues of caring and K-12 education have taken on significance during the pandemic as a means of restarting the economy. And it is because the vast majority of women 25 to 54 years old are in the labor force—76 percent were in 2019, half of whom have children less than 18 years old at home—that issues of caring have been so important to them.

This time really is different, even compared with past economic catastrophes. Unemployment in the Great Depression of the 1930s was far greater than experienced during the COVID-19 pandemic. But women had played a minor role in the labor force then. The children of impoverished families were supported by Aid to Dependent Children (ADC), part of the omnibus 1935 Social Security Act, so their mothers could stay at home and care for them. The part of the New Deal that dealt with childcare—the WPA nursery schools—was directed at the children of poor families to ensure they were adequately fed, educated, and healthy. The program was not designed to help mothers work for pay because women weren't supposed to be employed outside their homes.

Even in ordinary times, the care of children takes considerably more hours from mothers than fathers, and that is true even if both are fully employed and even when both are college graduates, we will soon see. Thus, even though school and daycare closings during the pandemic have had disproportionate impacts on parents, it is mothers who have been most impacted. Childcare hours of fathers greatly increased as well, to be certain. But the hours that women have added created so heavy a load that some had to sacrifice their jobs and careers because of care issues and others had to sacrifice their children's education and care for their livelihood.

The pandemic has led to considerable pain and suffering from its double impact on people's health and their jobs. The closing of schools and daycares, the furloughing of nannies and housecleaners, and the shortage of home healthcare workers intensified the time demands on women. Even though work from home was safer, it was also filled with interruptions leading some to dub WFH as "Work from Hell."

moment of major fluctuations in the female labor force was during and just after World War II. According to official estimates, about 26 percent of women (15 years and older) were in the labor force in 1940. But by 1944, (from estimates implicit in Goldin 1991), the female labor force shot up to 40 percent of those 18 years and older. It then rapidly declined to 30 percent by 1947, but quickly began its secular increase and reached 34.5 percent by 1951. There has been no other time in US recorded history of so rapid a change, both up and down, in the female labor force in so brief a period.

² The fraction female of the labor force by hours worked is less than 47 percent since working women of all ages report working for pay 10 percent fewer hours than do working men (the same figure holds for those 25 to 54 years old), using all months in 2019 and the "hours usually worked per week at all jobs" variable, truncating at 84 hours.

And even among the fortunate women who could work from home, their productivity appears to have been related to their parental status. Several recent studies have shown that mothers with academic jobs issued fewer working papers during the pandemic and published fewer journal articles than did fathers with academic jobs and colleagues without school-aged children.³ But the worst hit have been the women who couldn't work from home, who served others in hospitals and grocery stores, whose incomes and education levels are low, and whose children had the least access to remote learning technology.

It is no wonder that our newspapers and news media have been jam-packed with alarming headlines about the contemporaneous and long-run effects of the pandemic on women, such as:

“Pandemic could scar a generation of working mothers” (Patricia Cohen and Tiffany Hsu, *New York Times*, June 30, 2020).

“Pandemic will ‘take our women 10 years back’ in the workplace” (Amanda Taub, *New York Times*, Sept. 26, 2020).

“One in three mothers may be forced to scale back or opt out” (McKinsey-LeanIn, *Women in the Workplace Study 2020* Sept. 2020).

“Pushed Out by the Pandemic: Women Struggle to Regain a Footing in the U.S. Job Market,” (Jonnelle Marte and Aleksandra Michalska, *Reuters*, March 5, 2021).

“In One Year, Coronavirus Pandemic Has Wreaked Havoc on Working Women” (Tim Smart, *US News*, March 8, 2021).

“Female workforce participation has already dropped to 57%—the lowest level since 1988” (*Fortune*, Feb. 2021).

“One in four women are considering leaving the workforce or downshifting their careers versus one in five men.” (McKinsey & Company, March 8, 2021).

The level of hype in these headlines may be understandable. But, some of the most extreme became caught in a news echo chamber that distorted the facts and distracted us from other issues.

In this essay, I provide a fact check on some of the year's headlines concerning women and the economy in the US.⁴ I will also ponder the longer-run impact of the pandemic on women and the workplace.

³ Deryugina et al. (2021) surveyed academics from May to July 2020 and showed that research time decreased for all parents, but more for mothers. Flaherty (2020) used Elsevier journal data and showed for the early pandemic months that publications of women generally lagged those of men.

⁴ Alon, et al. 2021 uses comparable data for six countries (US, Canada, Germany the Netherlands, Spain and the UK) to show the different impact of COVID-19 on women across nations with different social insurance systems and responses in terms of lockdowns, school closures, and social spending.

Fact Checking Five Statements about the Pandemic's Impact on Women

The five statements to be examined are:

1. That the economic downturn caused by the pandemic **has been a “she-cession,”** meaning that women have had greater decreases in their labor force participation and employment than have men due to the pandemic.
2. Mothers in the pandemic economy **doubled their childcare hours** (excluding housework).
3. Female labor force participation **plummeted to 57%**, the lowest level since 1988. The implication is that female labor force participation had been considerably higher just before the pandemic began.
4. Mothers left, or were pushed out of, the labor force in droves because of childcare issues. **“One in three mothers** may be forced to scale back or opt out” (September 2020).
5. Women **lost far more jobs than have men**. The employment impact of the pandemic economy was felt **disproportionately by Black women**.

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1. *Statement:* “The scale of the crisis is unlike anything since the Great Depression. And for the first time in decades, this crisis has a predominantly nonwhite, female face ... “I think we should go ahead and call this a ‘shecession,’ ” said C. Nicole Mason, president and chief executive of the Institute for Women’s Policy Research, in a nod to the 2008 recession that came to be known as the ‘mancession’ ”
Alicia Haridasani Dasgupta, “Why Some Women Call This Recession a ‘Shecession,’ ”
(*New York Times*, May 9, 2020).

There are two main reasons why the economic impact of the pandemic would be felt more by women than men. The pandemic shut down most in-person services, such as those in restaurants, hair salons, and retail. In addition, the travel and hospitality sectors saw greatly reduced demand. Jobs in these businesses had been done more by women than by men. Many of the service sector positions had once seemed immune to the vagaries of the economy, such as the China trade shock, and others appeared protected from automation. Men, not women, had been in the more vulnerable and cyclically-sensitive jobs, such as those in manufacturing. That is the reason why the preceding downturn, the Great Recession, was deemed a “mancession.”

The other reason that the pandemic would be experienced more by women is that the care sectors—K-12 schooling, daycares, and eldercare—were also largely shut down. Childcare, eldercare, and schooling at home are traditionally more the domain of women.

There are several ways to estimate the impact of the pandemic, each constructing a counterfactual concerning what employment or labor force participation would have been

in the absence of the pandemic. The most reasonable estimate of what a group of individuals would have been doing in the absence of the pandemic is what they were doing in the same month in a previous, more normal, year. That is, take an outcome (say being at work) for some group (say women 25 to 34 years old) in a month after March 2020 (say May 2020) and take the same outcome for the same group during the same month in 2019 and difference. That is what is shown in Figure 1.

An alternative method poses a somewhat different question. It asks what the group in, say, May 2020 was doing relative to what they did just prior to the pandemic. That is, take the most normal month before the pandemic (say before March 2020) and difference from that month. Many have used January 2020 as the starting point, and the results of that procedure are shown in Figure 2. There are several problems with using this method. One is that there is seasonality which would have to be accounted for. Another concerns some oddities about the labor force in the winter 2019/2020, and that will be discussed soon.

The groups considered in Figure 1 are all men and all women, 25 to 54 years old by whether they graduated from college.⁵ The outcome is being “at work” in the relevant week during the given month. The fraction of the population “at work” is defined here to exclude those who were out of the labor force, those who were unemployed, and those who stated they had a job but were not at work in the relevant CPS week. The last group is excluded because many workers who were not currently at work during the pandemic would never be able to return to work. The category generally includes workers on short-term leave or vacation. Thus the most conservative estimate excludes them from the “at work” population.

In terms of absolute levels, the fraction “at work” declined significantly in April for all groups, and considerably more for the less educated. The fraction at work decreased by 8 percentage point (pp) for both male and female college graduates but by about 18 pp for both genders in the non-college group.

The decrease in the fraction “at work” for college graduate men 25 to 54 years old was approximately the same as for college graduate women 25 to 54 years old until fall 2020 when it was higher for women by around 1.4 percentage points. For half of the months during the pandemic part of 2020, non-college graduate men had greater losses and for the other months non-college graduate women did.

There doesn’t seem to be a large difference in “at work” losses by gender using the counterfactual provided in Figure 1. But there is a large difference by education. College

⁵ I limit the group to those 25 to 54 years for two reasons. The lower limit is to give individuals enough time to have graduated from college. The upper age limit is because I would like to constrain the group to those who could be parents of children < 18 years old.

graduates experienced half the decline in the fraction “at work” than did those with less education.

Education inoculated workers from the economic impact of the pandemic long before a vaccine was developed. We can see that in Figure 3 from the answers to the CPS question on whether workers teleworked or worked for pay from home at any time during the previous four weeks because of the pandemic.⁶

Working remotely aided workers to have safer jobs that could be done from home and it enabled their firms and institutions to continue in operation. More than 60 percent of college graduate women and college graduate men employed in May 2020 were working from home at least part of the time. But, among those without a college degree, just 25 percent of employed women and 13 percent of employed men were working from home in May 2020. By fall 2020 about 40 percent of the college graduate group continued to work from home, whereas 13 percent of the non-college graduate women did. An even smaller fraction of the non-college graduate men did.

Now, let’s answer the original question using the second method, which differences the “at work” outcome in each month from that in January 2020. The results produce a somewhat different answer. But, the figures for June, July, August, are conflated with seasonal difference and their higher level, especially for college graduate women, should be discounted.⁷ But, even excluding these three summer months, gender differences are more in line with the notion that the impact on women was greater than on men. The conclusion, therefore, differs somewhat from that just mentioned regarding Figure 1.

The gender differences in the “at work” outcome, however, are not large for the college graduate group. For the non-college group, they are considerable. In September and October 2020, for example, the decrease for women was 2.5pp more than that for men. I will soon explain why the two methods, implicit in Figures 1 and 2, produce different results, why I offer both, and why I am more convinced by the conclusions from Figure 1.

But even using the method of Figure 2 the most apparent difference is that between more- and less-educated individuals. The decrease in “at work” for non-college graduate women is almost twice that for college graduate women, disregarding the three summer months. Similar, but somewhat smaller differences exist for the men.

⁶ Dingel and Neiman (2020), at the very start of the pandemic, produced estimates concerning which occupations could be done remotely.

⁷ See Price and Wasserman (2021) on the possibility that K-12 teachers hired on 12-month salaries, yet who work nine months of the year, report that they are not “at work” during the summer months. It should be noted that the counterfactual estimates that difference each month show no relative increase by gender during the summer, which suggests that seasonality is a major factor.

Another piece of evidence supporting the notion that education has been protective and that the overall gender effect is small is given in Appendix Table 1, which uses the entire period of the pandemic as the “treatment” and the months from January 2019 to February 2020 as the “control” period. The results of a regression on all men and women 25 to 54 years old for “at work” are shown. The results for labor force participation are similar.

The interaction with female and “treatment” in col. (1) is small and not significant. To anticipate upcoming findings, the triple interaction in col. (2) shows that relative to men with custodial children, women had greater decreases in “at work.”⁸ The substantial protective effect of a college degree during the pandemic can be seen in col. (3), for which there is no significant difference by gender. I will return to the estimates for Blacks.

Fact-Checking Assessment: The pandemic produced both a he- and a she-cession. Relative to previous recessions, women have been hit harder (see also Albanesi and Kim 2021). In addition, the excess burden on mothers has been greater than on custodial fathers, and Blacks were hit harder than whites, within the non-college graduate group. Larger differences in pandemic effects on employment are found between education groups rather than between genders but within educational groups.⁹

2. Statement: “*Parents’ Chores and Child Care Almost Double during Pandemic*,” by Lucy Meakin (*Bloomberg Technology & Ideas*, May 21, 2020).¹⁰

The notion that parents with young and school-aged children doubled their childcare hours is key to understanding the economic impact of the pandemic on working parents and their wellbeing. When schools closed, daycares were shuttered, and nannies were sent packing, childcare demands on parents soared. A problem in assessing just how much is that we don’t have all the facts yet and probably won’t until the portion of the American Time Use Survey (ATUS) taken during the pandemic is released.

The short answer, from piecing together the currently available evidence from the US and Britain, is that childcare time demands did double in families of working parents. But, not only did childcare hours increase for mothers, the share of the total done by (custodial) fathers also increased. Fathers did a lot more as well.

⁸ One in five families with children have no custodial father. The non-custodial fathers are grouped with all men since there is no way in the CPS to distinguish them.

⁹ I have not yet looked at the intensive margin of hours.

¹⁰ The Bloomberg article is based on data from a [BCG survey](#) conducted early in the pandemic, from March 20 to April 3, 2020, and refers to both childcare and housework time.

Let's consider college-graduate, employed parents, as I have done in Figure 4 by using the ATUS to compute pre-pandemic childcare hours of mothers and fathers by the age of their youngest child. The Blue bars give the (weekly) childcare hours of the mothers BCE, "Before the Corona Era." The fraction of total parental childcare hours that they did is given above the bars. BCE, college-graduate employed mothers were doing around 60 percent of total childcare hours (not including housework, laundry, food prep and cleanup, the addition of which would increase the fraction).

The Green bars in Figure 4 denote the childcare hours of mothers During Corona (DC) in spring 2020, when almost 90 percent of school-age children were in school only remotely and most childcare facilities were shuttered. But, since many of these households had both parents at home full time (they are all college graduates), there was more parental sharing. Consequently, the fraction of childcare performed by mothers fell, even as total parental childcare hours doubled and as the childcare hours of mothers increased by around 1.7 times.

In September 2020, we moved into the "After Corona but During Corona" (AC/DC) world from which we have only begun to emerge. Draconian pandemic restrictions were partially lifted, some offices allowed workers to return. Daycare centers were allowed to open in most states, although some had already gone out of business. Schools in most large districts did not fully open, and some that opened, closed for a time. The Gray bars give estimates of women's childcare hours in fall 2020.

In the absence of ATUS data for the past year, the data behind the Green bars have been derived from surveys, obtained in April 2020, on the increase in the childcare hours of working mothers and fathers from their -pandemic levels. The Gray bars, for the AC/DC period, contain underlying data that is somewhere between those in the BCE and DC bars. The assumptions are that total childcare levels decreased for the youngest children more than for the school-aged children since daycare was generally open more than were elementary, middle, and high schools were. Custodial fathers are assumed to have returned to their pre-pandemic levels of childcare; mothers take up the entire difference.¹¹

There was probably no net gain for working women in the move from the DC (spring 2020) to the AC/DC world in fall 2020/winter 2021. What they gained from partial and often-sporadic school and daycare openings, they likely lost from less parental help at home as more men than women went back to their offices and worksites or worked more intensively on their jobs from home. In consequence, mothers total hours remained about the same but their share of the total increased.

¹¹ The assumptions used are in the notes to Figure 4.

Fact-Checking Assessment: The statement that parents of young and school-aged children doubled their childcare time in spring 2020 is likely correct. Mothers greatly increased their housework and care hours, and although their childcare hours may not have doubled they became an enormous burden especially for those with full-time jobs. Custodial fathers' childcare time also increased and probably more than doubled, having started out at lower levels than did mothers'. There was greater sharing among parents as time burdens increased. The shift back to the office and job-site left mothers with a larger fraction of childcare time even as the total number of their childcare hours remained the same. Much of the frustration expressed by mothers about childcare in the AC/DC world, concerned the absence of help from the fathers.

3. *Statement:* "Female workforce participation has already dropped to 57%—the lowest level since 1988." (*Fortune*, February 2021). "More than 2.3 million [women] have left the workforce since February 2020, bringing their labor participation rate to levels not seen since 1988." (CNBC, March 1, 2021). "Now, 56 percent of American women are working for pay, the lowest level since 1986." (Claire Cain Miller, *New York Times*, May 17, 2021).

These headlines are not incorrect. But they imply that the female labor force plummeted from a much higher level before the pandemic to one that was extremely low during the pandemic. Even though the numbers are correct, the implication is not.

The 57 (or 56) percent figure is for all women 16 years and older, and although it is a common way of expressing the data and is done for historical consistency, it is an odd age group to use for the current period. We should be pleased when a 18-year old goes to college or when a 16-year old finishes high school and does not have to simultaneously work and study. We should be heartened when a 73-year old can retire in good financial shape.

But even using the 16 years and older group, the statistic for women fell by only 1.1 pp from April 2019 to April 2021. The same statistic for men fell by more—1.4 pp. The reason that recent participation rates for women take us back many decades is that women's participation rates have not changed much during the past three decades, and, for some demographic groups, they actually fell. Furthermore, men's participation rates have fallen almost every year since the 1960s, when they first began to be produced in this manner.

Labor force participation rates make more sense for a prime-age group of workers, say 25 to 54 year old as depicted in Figure 5. That for women expressed in this manner fell from 0.755 in April 2019 to 0.751 in April 2021 (comparing data for the most recent

available month to the same month before the pandemic). That is, the rate declined by a mere 0.4 pp. And that for men, using the same age group, fell by 1.4 pp, considerably more.

But, some have computed the change differently. Rather than comparing data in a month before the pandemic to data for the same month after, some compute the change from January (or February) 2020. The January 2020 number for women, as you can see in the enlarged portion of Figure 5, is an outlier. It is 0.769. Out of the 384 monthly numbers from 1990 to 2021, it is the 14th highest.

Female labor force participation rates soared from late fall 2019 to early winter 2020, when the economy had very low unemployment. We may never know the increase in women's participation would have persisted or whether it was a transitory blip, like so many others in the previous three decades. We do know that less-educated women with children 0 to 4 years old had the largest increase in participation in the months leading up to the pandemic.¹² It seems plausible that the January 2020 figure is anomalous.

The value from January 2020 to January 2021 declined by 1.8 pp, a lot more than the comparison to the same month in 2019. But the same statistic for men in this age bracket declined by 1.5 pp, not much less.

Women's participation rates in the aggregate did not plummet during the pandemic, although they did decline. The really disturbing fact is that labor force participation rates for both men and women have been weak for the past several decades. The female labor force participation rate for the 25 to 54 year old group was 74 percent in 1990 and was 75 percent in 2020.

We are just now collectively waking up to a set of problems that have always existed. An underlying cause for the decrease in male participation is rising economic inequality. The gains from growth have gone to the few and the real wage of the median worker has been stagnant. The same factor has been part of the cause for the absence of much change for women's participation since the 1990s. The other reason is found in the care sector for both children and the elderly.

Fact-Checking Assessment: The aggregate female labor force did not plummet because of the pandemic. It did fall somewhat, and comparing January 2020 to January 2021 it fell by more than it did for men. But the statements obscure the real issues regarding the labor force. The US

¹² From April to December 2019 the increase in participation among all women 25 to 54 years old was 2.17 pp. Among those 25 to 34 years old the increase was 3.11 pp and for the non-college graduate group with children 0 to 4 years old it was 5.59 pp. For college graduate women 25 to 34 with young children the increase was 3.69 pp. For non-college graduate women 20 to 29 years old with young children the increase was an astounding 6.32 pp. Therefore, the increase was greatest among younger women with young children, especially those who were less educated.

female labor force has not increased much in three decades, with the exception of those 55 years and older.¹³

4. *Statement*: “Whether they have been laid off or had to leave to care for children home from school, many are struggling to make ends meet. In fact, 1 in 4 women are considering leaving the workforce or downshifting their careers.” (CNBC, March 1, 2021). “Working mothers are quitting to take care of their kids, and the US job market may never be the same.” (CNN, August 2020). “One in three mothers may be forced to scale back or opt out.” McKinsey LeanIn *2020 Women in the Workplace Study*.

Labor force participation is a bellwether of future employment, whereas unemployment is a measure of current harm and income loss. Leaving the labor force means having to reenter employment. That is why the possible decrease in women’s participation during the pandemic is concerning. The current damages from the economic downturn, COVID-19, and related care issues are clear. But the potential for future harm from exiting the labor force is worrisome and less clear.

To explore the facts, I’ve divided the year into four seasons: spring, summer, fall, and winter.¹⁴ I compare labor force participation rates for 2020 and 2021 in each to their pre-pandemic levels for men and women separately by education.

The decrease for women 25 to 54 years is occasionally larger than for men, especially in fall 2020 relative to fall 2019. That finding may be caused by school closings or because of the increase in female participation starting around fall 2019, as just pointed out. The average decreases across the seasons were around 1.5 pp for the college graduate group and 2.5 pp for non-college graduate women, seen in Figure 6.

The base labor force participation rate for college graduate women was 85 percent and that for the non-college graduate group was 72 percent. Therefore, about 1 in 60 college graduate women left the labor force, and a bit more than 1 in 30 did for non-college graduates. Those figures are a far cry from the one in four figure mentioned in the McKinsey-LeanIn survey for women and the one in three number for mother. These numbers were repeated in the press numerous times. In addition, the labor force changes just mentioned are for the fall 2020 when the decreases were highest.

¹³ For data on the female labor force in general, see Goldin and Mitchell (2017). For information on the increase in female participation for those 55 years and old, see Goldin and Katz (2018).

¹⁴ Spring includes April, May, and June; summer includes July and August; fall includes September, October, and November; and winter includes December, January, and February. All are 2020 relative to 2019 except January and February which are 2021 relative to 2020. I include June in Spring because most K-12 schools are still open during much of the month. I use seasons rather than months to increase statistical power and for simplicity.

Figure 7 explores further labor force participation changes of mothers by considering the age of the youngest child for all mothers 25 to 54 years old. Although the differences jump around a bit, the largest decreases are for mothers whose youngest child was in elementary and middle school (children 5 to 13 years old). Those whose youngest child was 0 to 4 years and those whose youngest child was 18 years and older were the least impacted. But, once again, mothers with less education had larger decreases than mothers with more education. For the group with children 5 to 13 years, the differences are generally twice as large.¹⁵

Fact-Checking Assessment: There is considerable hype on the topic of labor force participation changes. Labor force declines have not been enormous. In fact, a far larger group of mothers were stressed because they *didn't* drop out of the workforce than were forced to drop out by the overload. This point is so important that I will repeat it. Employed women who were also helping to educate their children, and working daughters who were also caring for their ailing parents, were stressed *because* they were in the labor force, not because they had bailed. The real story should be that women remained in the labor force and persevered, not that they left in droves or were pushed out.

5. *Statement:* Women have lost more jobs than men and those with children have had to scale back so much that employers furloughed and fired many. Black women have been hit the hardest. "Taken together, the coronavirus proved to be a double whammy for Black women, robbing them of their jobs as well as threatening their health." (Tim Smart, *US News*, March 8, 2021)

The statement here is similar to that in the first concerning the "she-cession," but also concerns the role of race. In assessing this statement I will use seasons again, rather than separate months, to have more observations per period. Dividing by race, education, age, and gender produces small cells.

"At work" declines by gender for those 25 to 54 years old show few differences by season, which should not be surprising giving the results in Figure 1. As was remarked upon earlier, there are large differences by education. Among women, those who were not college graduates had twice as large a decrease in their "at work" status than those who were.

Large differences in "at work" changes are evident by race. Black women with less than a college degree have had greater decreases in "at work" rates relative to Black men

¹⁵ Furman Kearney, and Powell (2021) report similar findings using the January/February 2020 to January/February 2021 difference. Although not shown, Black women who were college graduates fared relatively well, but those without a college degree had larger declines than their white counterparts.

and relative to all women (25 to 54 years old), among those with less than a college degree. These findings, shown in Figure 8, hold for each of the four seasons. Black men without a college degree were also hit harder than were other comparable groups.¹⁶

Another way to see these results is to run a regression with a treatment and control period. As before, I use the treatment as all pandemic months and the control as all pre-pandemic months (except March 2020) back to January 2019. Appendix Table 1, col. (4) shows the large impact of the pandemic on Blacks, using all individuals 25 to 54 years old, although there is no differential impact of the pandemic on Black women relative to Black men. In Appendix Table 2, the sample is limited to women and the greater impact on Black women relative to non-Black women is clear, although some of that difference is due to educational.

Fact-Checking Assessment: There are still many who are out of work or who have left the labor force. But the statements about differences by gender are generally overblown when comparing the figures for 2020/21 to those in the pre-pandemic period. The one exception is that Black women without a college degree have had larger decreases in their employment rates than Black men and non-Black women with comparable levels of schooling. We also know from other information that the pandemic's health effect on Black men and women was greater than for whites in terms of excess deaths and, in consequence, reduced life expectancy.

In sum, the pandemic was “she-cession” relative to other recessions and relative to the January (or February) 2020 figure. But gender differences month by month, relative to pre-pandemic level, are not large. The really big differences are by education rather than gender.

Mothers greatly increased their time spent in childcare during the pandemic, but custodial fathers did as well. Female labor force participation did not plummet to its lowest level since the last 1980s. It had been low for some time relative to its level in comparable nations. With the exception of older women, it has not increased in three decades. It decreased, but actually by less than that for men.

¹⁶ Although not shown in Figure 8, Black women with a college degree had lower decreases in “at work” rates than did non-Black college graduate women. In fall 2020, Black college graduate women’s “at work” rate was 2.4 pp lower than it had been the previous year, but non-Black college graduate women’s was 4.2 pp lower. It is not clear from this analysis whether this can be explained by their type of job, employment sector, family circumstances, or preferences.

Far more mothers, and other women who are caregivers, have been stressed, frustrated, and anxious because they did *not* leave their jobs than have been forced to exit the workforce. Black women who are not college graduates were hit the hardest in terms of their decreased at work levels and their labor force participation.

What accounts for the excessive statements in the popular press, even from veteran writers who know the territory well? One reason is that individual experiences reported in the news are those containing the most adversity. Another is that surveys (such as that done by McKinsey-LeanIn) capture the stresses and frustrations of the moment, and some of the sampling frames were of currently employed women and others were not nationally representative. It is precisely the mothers who did not drop out, who have expressed the greatest anxieties about their future careers.

But, it is because these women were still at work that they could worry about losing their jobs or not getting the promotion, making partner, or receiving tenure. Mothers are concerned that their productivity was seriously compromised during the past year and they are uncertain about schools and camps for the upcoming summer and fall 2021. Finally, the CPS—the primary data source that I and many others have used—reveals nothing about what individuals do with their time spent not at work and about their mental wellbeing. The latest available ATUS data are 2019.

Looking Ahead

A silver lining to the pandemic may exist in reducing the cost of temporal flexibility.¹⁷ Work-at-home, Zoom meetings, telemedicine, teletherapy, tele-workouts, and tele-everything could have taught us to work efficiently without travel, overnight stays, and in-person meetings. Many corporate leaders are bullish on workplace flexibility. Recent headlines on the subject are almost universally positive: “Flexibility: Every corporation’s most important strength ... no longer a novel concept,” (*Forbes*, March 1, 2021); “How the pandemic changed us: Our fastest rising priority is job flexibility,” *LinkedIn News*, April 14, 2021); “There are early signs that remote work can help level the playing field,” (McKinsey-LeanIn, *2020 Women in the Workplace*).

Surveys have found that the majority of workers in late spring 2021 do not want to return to the office and job site five days a week and would rather continue working at home one or two days.¹⁸ How this will change if firms institute vaccine mandates and as workers begin to perceive

¹⁷ Alon, Doepke, Olmstead-Rumsey et al. (2020) were among the first scholars to discuss various ways that the pandemic could alter the economy and gender norms.

¹⁸ Barrero, Bloom, and Davis (2021), using survey data, estimate that 20 percent of full workdays will be WFH after the pandemic ends, whereas 5 percent were before. They also estimate productivity boosts that will show up in conventional productivity measures, and that there will

their offices and worksites as safe is uncertain. Only a few firms have already instituted on-site requirements even if work can be done remotely. But far more could do that soon. It would appear that the pandemic has changed the way work will be done in the future. And that should be great for those with caregiving demands, generally women more than men.

But, it is possible that the “new normal” will create a work ghetto for women. In the new normal, men will go to the office five days a week. Women will work from home two days a week and go to the office three days a week. Women won’t be part-timers in terms of their hours, but they will be part-timers in terms of face-time and colleague-time in the office. Women will do the client-facing meetings on Zoom and men will go to Zürich to close the tougher deal. The work ghetto may be useful in the short run but, like its part-time hours equivalent, it may not come with the same bonuses, pay increases, and promotions.

Until more workers take advantage of the benefits of work flexibility, women who take the amenity could lose in the long run. They may not lose as much as when they worked part-time and they may not lose as much as when they changed jobs and firms to enhance their work flexibility. All depends on whether the pandemic will soften the greediness of work.

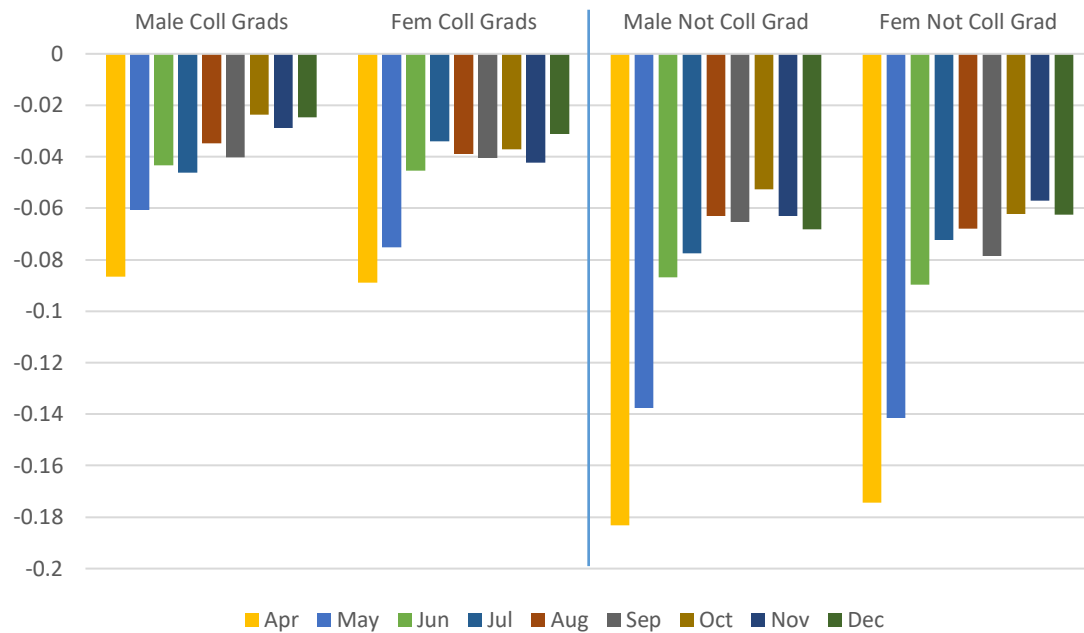
also be cost savings from less commuting that will not. Bloom et al. (2015) measure productivity increases from telecommuting. Emanuel and Harrington (2021) demonstrate negative selection to telework but also productivity boosts given negative selection. Both papers concern call centers, which generally do not have enhanced productivity and creativity from group interactions.

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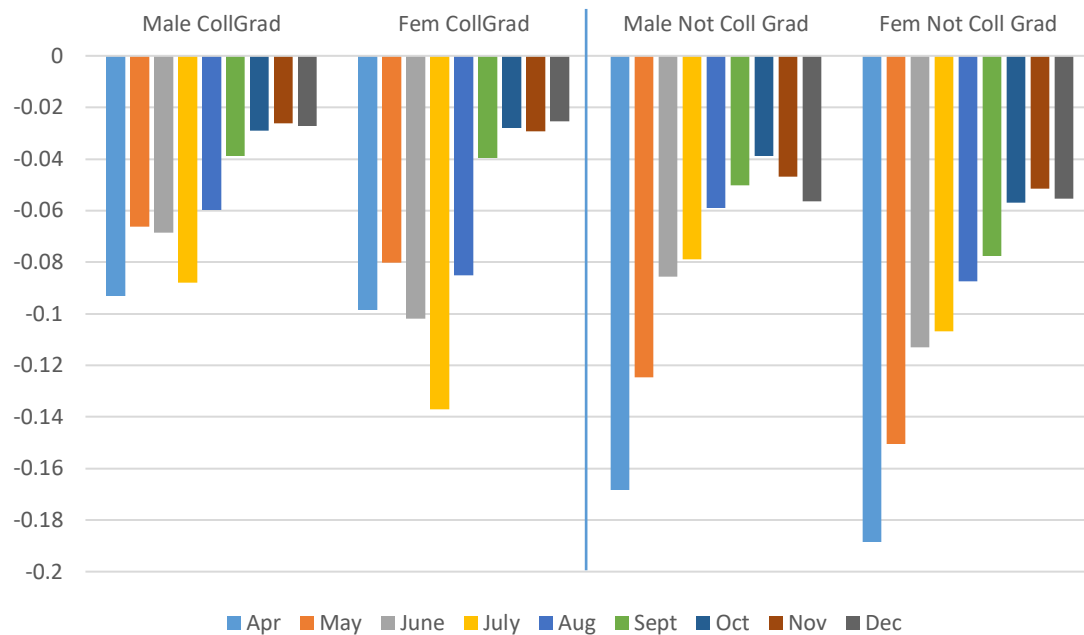
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Figure 1: “At Work” Changes (Month 2020 – Month 2019) for Males and Females 25 to 54 Years Old: By Education



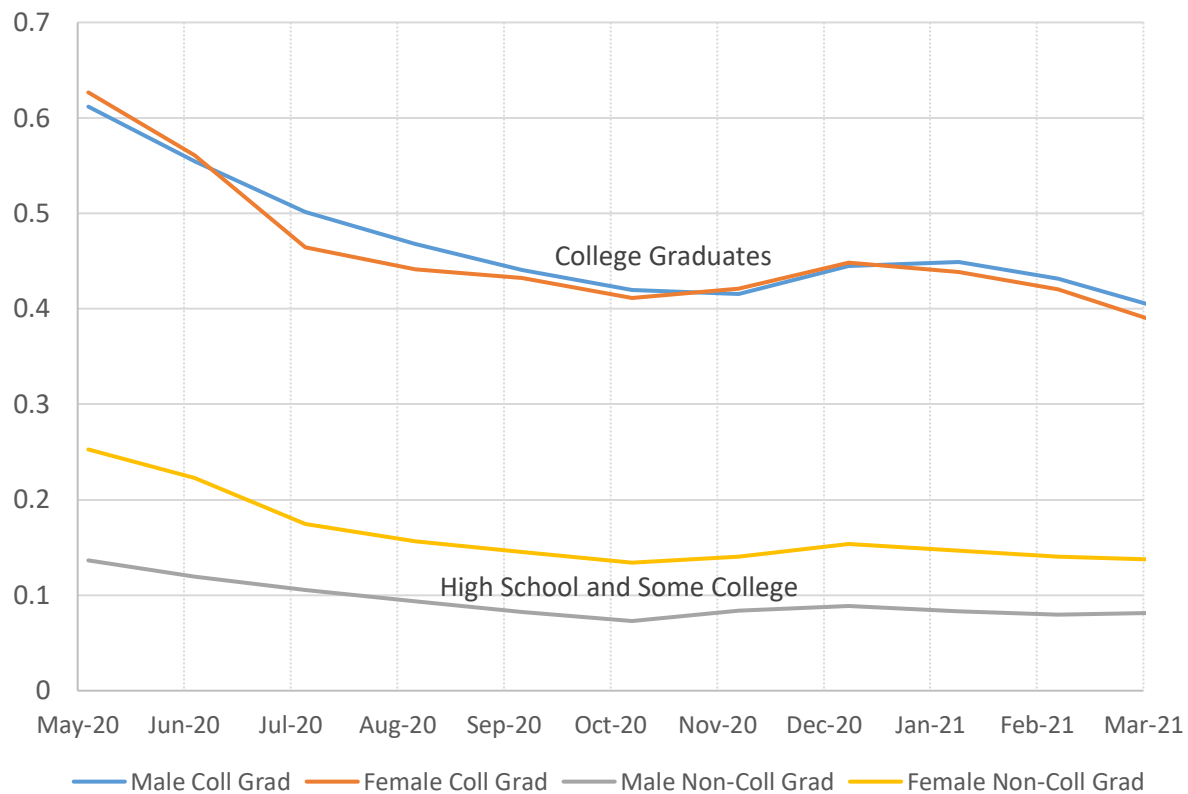
Source and Notes: CPS Monthly from IPUMS.org. “At work” excludes individuals who stated that they had a job but were not at work that week. That category is often high during the summer when many workers take vacation and it could also indicate that someone is on parental or medical leave. But at the outset of the recession it was also given by some who were furloughed and did not know their job status.

Figure 2: “At Work” Changes (Month 2020 – January 2020) for Males and Females 25 to 54 Years Old: By Education



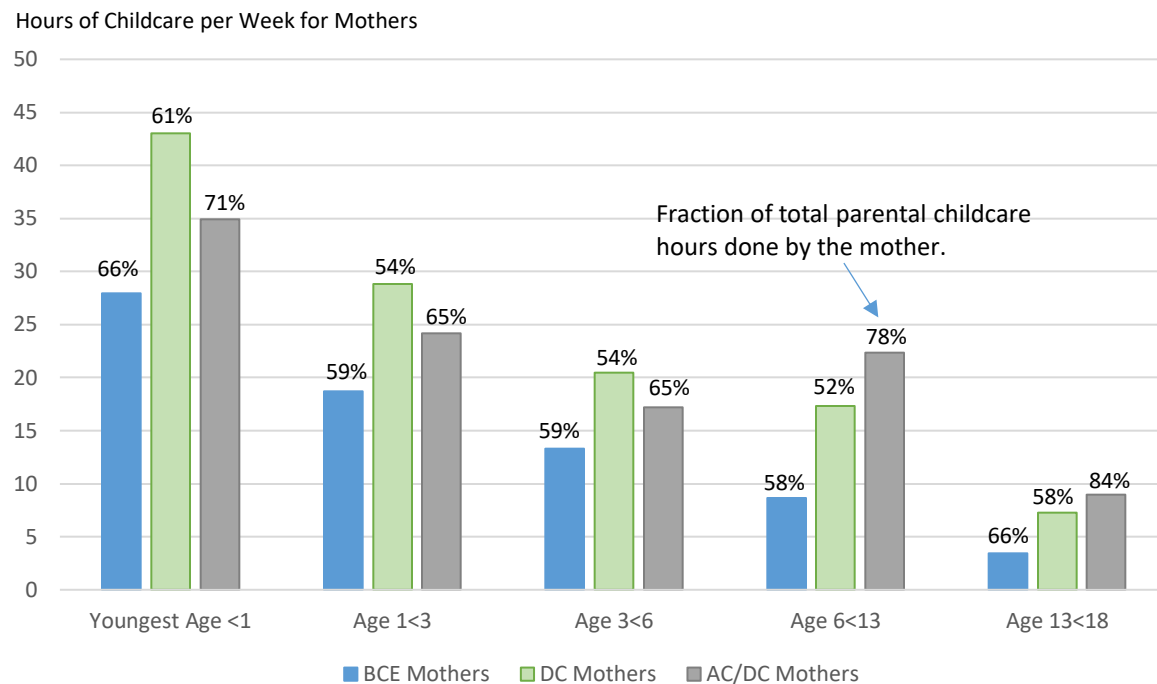
Source and Notes: CPS Monthly from IPUMS.org. “At work” excludes individuals who stated that they had a job but were not at work that week. That category is often high during the summer when many workers take vacation and it could also indicate that someone is on parental or medical leave. But at the outset of the recession it was also given by some who were furloughed and did not know their job status.

Figure 3: Fraction of Employed Men and Women Who Worked Remotely, May 2020 to March 2021: 25 to 54 Years Old by Education



Source and Notes: CPS Monthly Surveys. According to the BLS, the full question, asked first in May 2020, was: “At any time in the last 4 weeks, did you telework or work at home for pay because of the coronavirus pandemic?” (The question was asked of people 16 years or older who were employed at the time of the survey.)

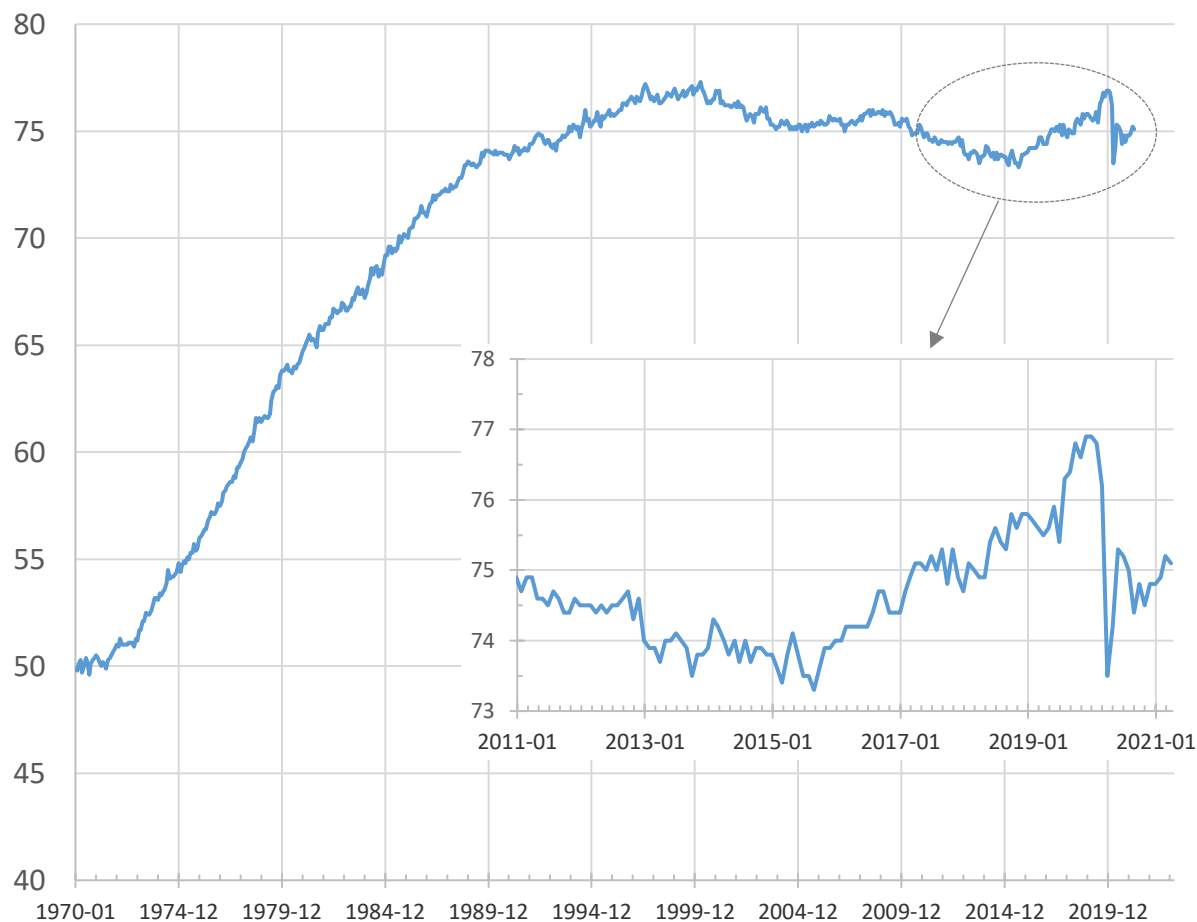
Figure 4: Childcare Hours of College-Graduate, Employed Women with College-Graduate Employed Husbands, by the Age of Their Youngest Child



Sources: BCE Mothers: ATUS, 2010-2019; DC: Andrew, et al. (2020).

Notes: BCE = Before Corona Era; DC = During Corona; AC/DC = After Corona and During Corona. BCE hours come from a sample of women in the ATUS who were currently employed, college graduates with at least one child less than 18 years old and a husband who was also a college graduate and currently employed. Daily childcare amounts are multiplied by seven. All days of the week are included. Numbers above the bars are the fraction of total parental childcare hours provided by the mother. DC hours are estimated by increasing BCE hours by 1.54 for mothers and 1.9 for fathers, which are the ratios from Andrew et al. (2020) and then adding four additional hours per week (per parent) when the youngest child is age 6<13 and two hours when the youngest is 13<18. AC/DC hours for the couple are an average of BCE and DC hours, but fathers are given only BCE childcare hours under the assumption that they are back at work full-time. Mothers are assumed to be doing the rest of the childcare. The average is one-quarter the difference between BCE and DC hours for children <6 years, but three-quarters for those 6<18.

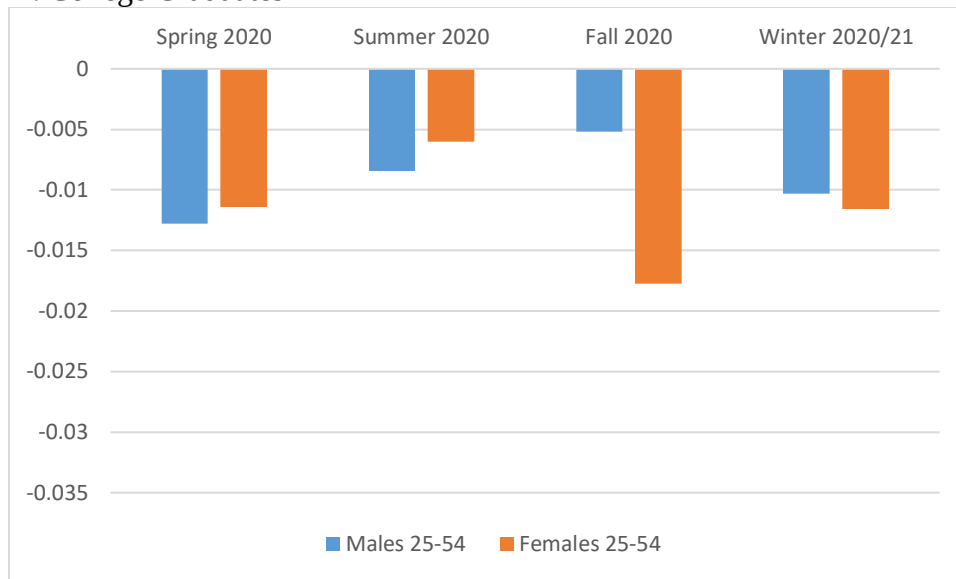
Figure 5: Female Labor Force Participation Rate, 25 to 54 Years Old, 1970 to 2021: Monthly and Seasonally Adjusted



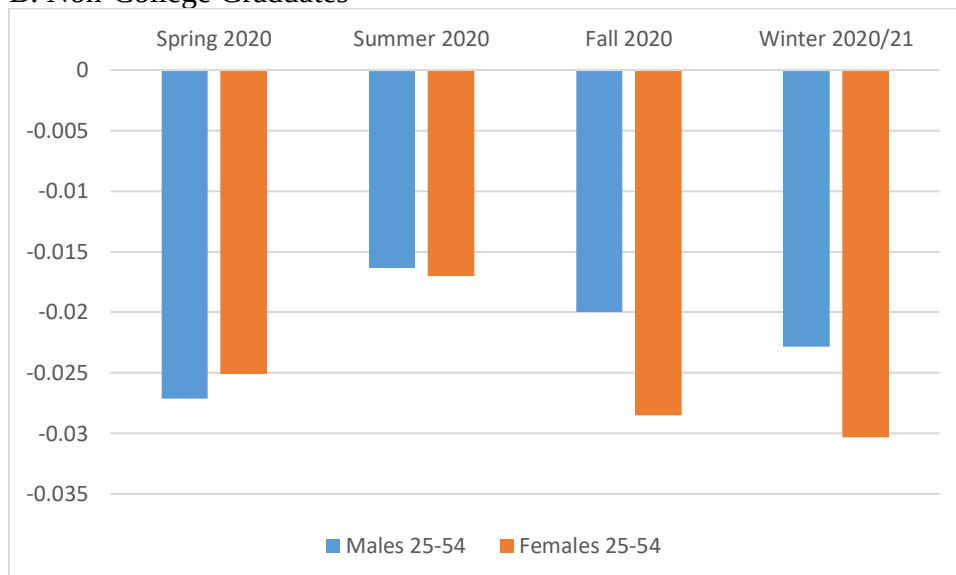
Source: FRED on-line.

Figure 6: Labor Force Participation Rate Changes by Season (2020/21 – 2019), and Education: Males and Females 25 to 54 Years Old

A. College Graduates



B. Non-College Graduates

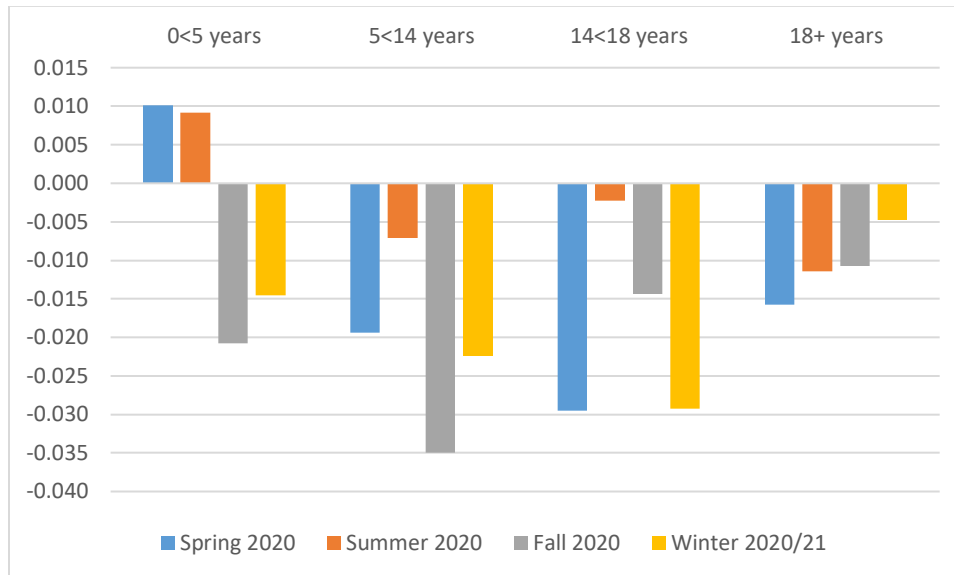


Source: CPS Monthly, IPUMS.

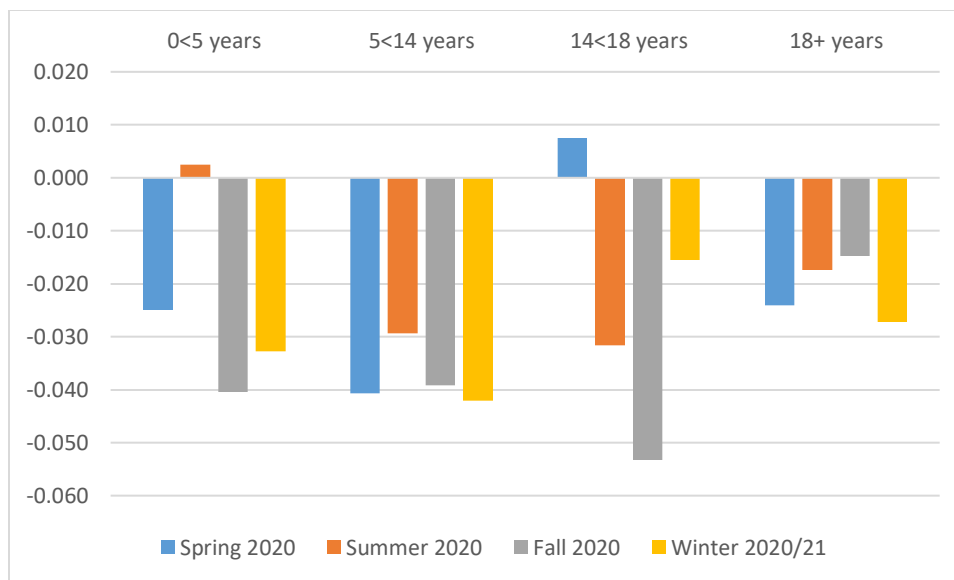
Notes: Seasons are: spring = April to June 2020; summer = July to August 2020; fall = September to November 2020; winter = December 2020 to February 2021.

Figure 7: Labor Force Participation Rate Changes by Season (2020/21 – 2019), Age of Youngest Child, and Education of Mother

A. College Graduate Mothers, 25 to 54 Years Old by Age of Youngest Child



B. Non-College Graduate Mothers, 25 to 54 Years Old by Age of Youngest Child

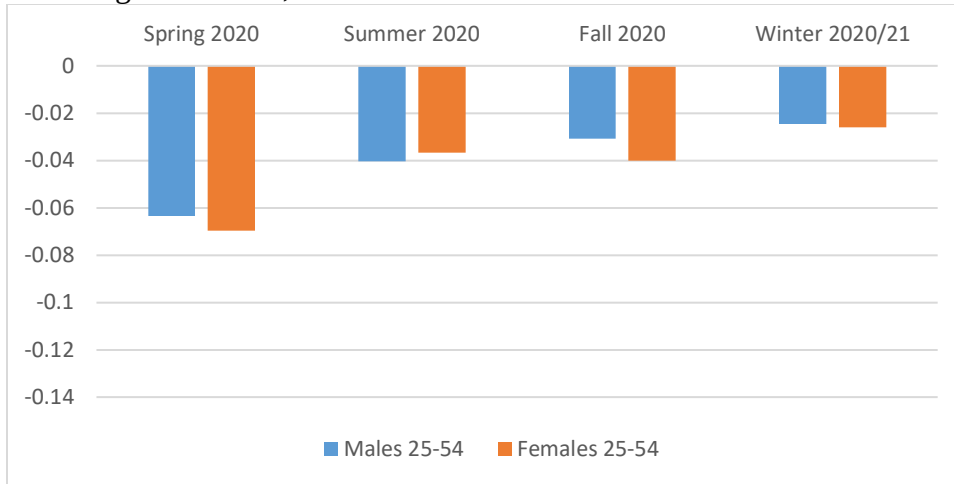


Source: CPS Monthly, IPUMS.

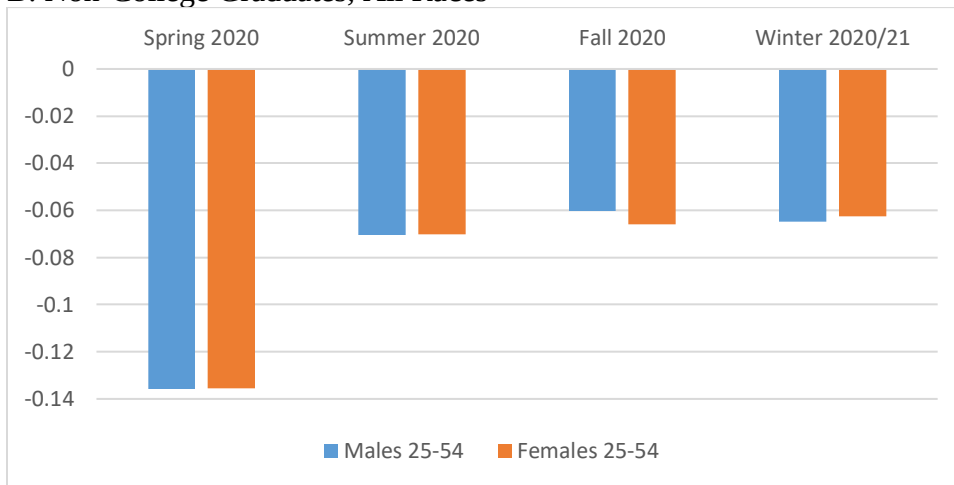
Notes: Seasons are: spring = April to June 2020; summer = July to August 2020; fall = September to November 2020; winter = December 2020 to February 2021.

Figure 8: Changes in “At Work” Rates by Season for Women and Men 25 to 54 Years Old: by Education and Race

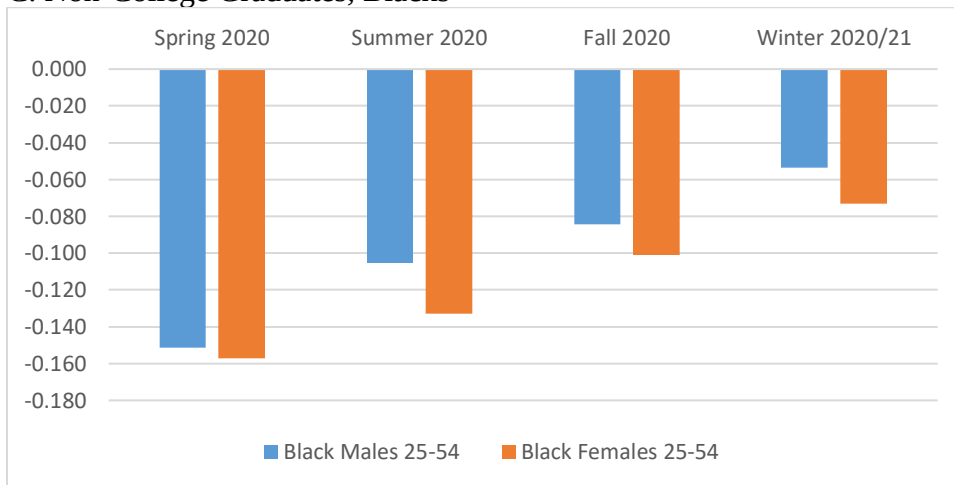
A. College Graduates, All Races



B. Non-College Graduates, All Races



C. Non-College Graduates, Blacks



Sources and Notes: See Figure 6.

Appendix Table 1: Impact of Pandemic on “At Work” by Gender, Education, and Race: All

All Men and Women, 25 to 54 Years Old	(1)	(2)	(3)	(4)
	Change in "At Work" Status between Control and Treatment Months			
Age 25 to 34	-0.00269** (-2.74)	0.00658*** (6.70)	-0.00546*** (-5.62)	-0.00152 (-1.55)
Age 35 to 44	0.0132*** (13.20)	0.0158*** (15.48)	0.00899*** (9.07)	0.0135*** (13.44)
Treatment (D)	-0.0617*** (-53.79)	-0.0662*** (-44.28)	-0.0790*** (-55.34)	-0.0573*** (-46.71)
Female	-0.131*** (-117.29)	-0.0565*** (-37.04)	-0.156*** (-109.95)	-0.144*** (-119.93)
D × Female	0.00445** (2.76)	0.0110*** (5.03)	0.00207 (1.00)	0.00349* (2.01)
Children < 18 years		0.0955*** (59.08)		
D × Children < 18 years		0.0123*** (5.31)		
Female × Children < 18 years		-0.163*** (-72.85)		
D × Female × Children < 18 yrs		-0.0171*** (-5.30)		
College graduate			0.0909*** (55.60)	
D × College graduate			0.0427*** (18.20)	
Female × College graduate			0.0454*** (20.03)	
D × Female × College graduate			-0.00529 (-1.62)	
Black				-0.089*** (-37.54)
D × Black				-0.0326*** (-9.57)
Female × Black				0.0993*** (30.56)
D × Female × Black				0.00929* (1.99)
Constant	0.840*** (848.19)	0.796*** (666.01)	0.810*** (708.15)	0.851*** (823.63)
Observations	1,128,806	1,128,806	1,128,806	1,128,806

Appendix Table 2: Impact of Pandemic on “At Work” by Education and Race: Women

	(1)	(2)	(3)
Women 25 to 54 Years Old	Change in “At Work” Status between Control and Treatment Months		
Age 25 to 34	0.00264 (1.78)	-0.00903*** (-6.18)	-0.00365* (-2.46)
Age 35 to 44	0.0201*** (12.93)	-0.00852*** (-5.72)	-0.00208 (-1.38)
Treatment (D)	-0.0552*** (-32.08)	-0.0769*** (-48.08)	-0.0538*** (-40.89)
Children < 18 years	-0.0692*** (-40.41)		
D × Children < 18 years	-0.00498* (-2.06)		
College graduate		0.137*** (81.31)	
D × College graduate		0.0374*** (15.46)	
Black			0.0102*** (4.29)
D × Black			-0.0233*** (-6.78)
Constant	0.740*** (518.80)	0.660*** (475.62)	0.713*** (563.66)
Observations	582,872	582,872	582,872

For Appendix Tables 1 and 2.

Source: CPS Monthly; IPUMS.

Notes: Treatment (D) months are April 2020 to April 2021; control months are January 2019 to February 2020. March 2020 is omitted. Black excludes mixed race. Children are only custodial children. t statistics in parentheses; * p<0.05, ** p<0.01, *** p<0.001