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ABSTRACT

The economic downturn caused by the current COVID-19 outbreak has substantial implications for gender equality, both during the downturn and the subsequent recovery. Compared to "regular" recessions, which affect men's employment more severely than women's employment, the employment drop related to social distancing measures has a large impact on sectors with high female employment shares. In addition, closures of schools and daycare centers have massively increased child care needs, which has a particularly large impact on working mothers. The effects of the crisis on working mothers are likely to be persistent, due to high returns to experience in the labor market. Beyond the immediate crisis, there are opposing forces which may ultimately promote gender equality in the labor market. First, businesses are rapidly adopting flexible work arrangements, which are likely to persist. Second, there are also many fathers who now have to take primary responsibility for child care, which may erode social norms that currently lead to a lopsided distribution of the division of labor in house work and child care.

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1 Introduction

It has by now become clear that the COVID-19 pandemic is not only a global health emergency, but is also leading to a major global economic downturn. In this paper, we provide some first results on how this economic downturn is going to affect women and men differently, and what the main long-run repercussions for gender equality may be.

We start by providing evidence that the effects of the current crisis on women versus men are likely to be sharply distinct from those of other economic downturns. In recent recessions such as the one in 2008, job losses for men were much higher than for women. One reason is that relatively more men work in industries heavily affected by a "standard" downturn (such as manufacturing and construction), while women's employment is concentrated in less cyclical sectors such as health care and education. In contrast, the current crisis has a big impact on service occupations with high female employment shares, such as restaurants and hospitality.

An even more important channel for differential impacts on women and men is that in the course of the pandemic, most US states along with other countries have decided to close schools and daycare facilities. Worldwide more than 1.5 billion children are out of school right now.[1] This has dramatically increased the need for childcare. In addition, grandparent-provided childcare is now discouraged due to the higher mortality rate for the elderly, and given social distancing measures, sharing childcare with neighbors and friends is very limited also. Thus, most families have no choice but to watch their kids themselves. Based on the existing distribution of child care duties in most families, mothers are likely to be more affected than fathers. Single mothers, of which there are many in the United States, and who are often in a disadvantaged economic position to begin with, will take the biggest hit.

Taken together, these factors suggest that the COVID-19 pandemic will have a disproportionate negative effect on women and their employment opportunities.[2] The effects of this shock are likely to outlast the actual epidemic. A sizeable

[1] Estimated by UNESCO, as of March 25, 2020.

[2] In terms of mortality from the disease itself, it appears men are slightly more at risk than

literature documents that earnings losses from job losses are highly persistent (Stevens 1997) and much more severe when they occur in recessions (Davis and von Wachter 2011). Workers who lose jobs now forgo returns to experience and are likely to have less secure employment in the future (Jarosch 2015). The consequences are not just limited to those who lose jobs, but also those who were about to enter the labor market for the first time.[3]

Despite this gloomy outlook, we also believe that the COVID-19 crisis can bring about some changes that have the potential to reduce gender inequality in the labor market in the long term. We start by noting that today, a large part of gender inequality in the labor market is related to an unequal division of labor in the household. Even though the labor force participation of women is now close to or equal to that of men in most industrialized countries, women continue to provide a disproportionate share of housework (such as cooking and cleaning) and childcare. A recent literature in labor economics has documented that the gender pay gap is closely related to (expected and actual) child birth.[4] From this perspective, long-run progress towards more gender equality is likely to stem primarily from changes in social norms and expectations that lead towards a more equal division of labor within the home.

We can identify at least two channels through which the COVID-19 pandemic is likely to accelerate changing social norms and expectations. One is on the side of employers. Many businesses are now becoming much more aware of the childcare needs of their employees and respond by rapidly adopting more flexible work schedules and telecommuting options. Through learning by doing and changing norms, some of these changes are likely to prove persistent. As a result, in many places mothers and fathers alike will gain flexibility in meeting the combined demands of having a career and running a family. Since currently women are more exposed to these competing demands, they stand to benefit disproportionately.

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women (China Center for Disease Control 2020). If current efforts to contain the spread of the epidemic are successful, however, many more people will be affected by the economic repercussions of the pandemic rather than the disease itself.

[3] See, for example, Altonji, Kahn, and Speer (2016), Oreopoulos, von Wachter, and Heisz (2012), and Schwandt and von Wachter (2019).

[4] See, for example, Kleven, Landais, and Søgaard (2019), Kleven et al. (2019), and Gallen (2018).

A second channel runs through social norms and role models in individual families. While in many cases mothers will pick up a large share of the additional childcare (and home schooling) during the crisis, there will also be a sizeable fraction of families where role models will be reversed. Many medical doctors are women, as are most nurses. Other critical businesses that will continue operating during the crisis include grocery stores and pharmacies, both of which feature high female employment shares. A sizeable fraction of women working in such areas are married to men who will either lose employment during the crisis or will be able to work from home (e.g., many office workers). In such families, many men will inevitably turn into the main providers of child care. The literature on policy changes that engineer a similar change (e.g., "daddy months" and other forms of paternity leave) suggest that such a reallocation of duties within the household is likely to have persistent effects on gender roles and the division of labor.[5]

In this paper, we combine insights from the existing literature with data on the distribution of women, men, and couples across occupations as well as time-use data on the division of labor in the household to shed more lights on the channels through which the COVID-19 pandemic affects gender inequality. Even though we identify at least some channels that could ultimately have beneficial effects, we emphasize that the short-run challenges posed by the crisis are severe, and especially so for single mothers and other families with a lack of ability to combine work with caring for children at home. We conclude by discussing policy options that could be used to deal with these specific challenges.

2 The Effect of COVID-19 on Employment

The social distancing measures and stay-at-home orders imposed in many US states and other countries during the COVID-19 crisis are having a large impact on employment, leading to a sharp rise in unemployment and other workers being given reduced hours or temporarily furloughed. In this section, we discuss

[5]See for example Farré and González (2019) for evidence from Spain and for evidence from Tamm (2019) for Germany that paternity leave leads a persistent increase in fathers' involvement in childcare. However, Ekberg, Eriksson, and Friebel (2013) do not find an effect of "daddy months" in Sweden in father's likelihood to take medical leave to care for children.

how the impact of this contraction in employment on female versus male workers differs from previous economic downturns.

2.1 Gender Differences in Usual Downturns

In economic downturns preceding the current crisis, including the large recession of 2008–2009, the employment of male workers was usually affected more strongly than the employment of female workers. Doepke and Tertilt (2016) summarize evidence on how employment varies over the business cycle for women and for men. Table 1 (adapted from Doepke and Tertilt (2016)) shows that women's aggregate labor supply is less volatile overall compared to men (here total volatility is measured as the percentage standard deviation of the Hodrick-Prescott residual of average labor supply per person). For cyclical volatility, i.e., the component of overall volatility that is correlated with aggregate economic fluctuations, the gap between women and men is even larger. For the period 1989–2014, men account for more than three quarters of overall cyclical fluctuations in employment, and women for less than one quarter.[6]

Figure 2.1 (also from Doepke and Tertilt (2016)) provides a graphical illustration of these results by displaying the cyclical component of hours worked for different groups from 1962 to 2014. It is apparent that male hours are much more volatile than that of women, with married women having the lowest volatility in hours worked.

The existing literature points out multiple reasons for why female employment usually varies less over the cycle. One reason is insurance in the family—women's employment may be less affected by downturns precisely because some married women increase their labor supply to compensate for unemployment or higher unemployment risk of their husbands.[7] One indication for the role of this channel is that in Table 1 and Figure 2.1, the cyclical volatility of labor supply is much lower for married women (to whom the family insurance channel applies) compared to women who are single. Still, within-family insurance is not the only

[6]The role of women in aggregate fluctuations has changed substantially over time due to rising female labor force participation; see, e.g., Albanesi (2020) and Fukui, Nakamura, and Steinsson (2019).

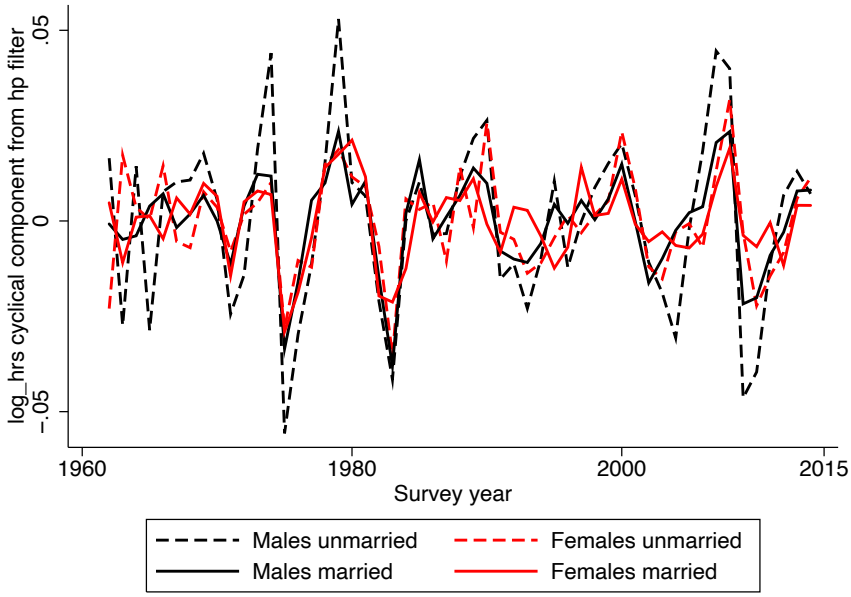
[7]See Ellieroth (2019) for a study documenting the quantitative importance of this mechanism.

Table 1: Volatility of Hours Worked in the USA, by Gender and Marital Status

	All			Married		Single	
	Total	Women	Men	Women	Men	Women	Men
				1962–2014			
Total Volatility	1.25	1.04	1.46	1.04	1.25	1.33	2.33
Cyclical Volatility	0.99	0.72	1.18	0.67	1.01	0.74	1.68
Hours Share		38.09	61.91	23.90	47.71	14.19	14.20
Volatility Share		27.22	72.78	16.20	48.98	10.64	24.17
				1962–1988			
Total Volatility	1.35	1.19	1.48	1.26	1.36	1.37	2.44
Cyclical Volatility	1.08	0.87	1.19	0.87	1.09	0.79	1.65
Hours Share		33.71	66.29	21.99	55.29	11.72	11.00
Volatility Share		27.14	72.86	18.02	56.29	8.67	17.02
				1989–2014			
Total Volatility	1.15	0.87	1.47	0.79	1.16	1.30	2.25
Cyclical Volatility	0.91	0.51	1.23	0.38	0.95	0.70	1.82
Hours Share		42.64	57.36	25.89	39.83	16.75	17.53
Volatility Share		23.68	76.32	10.80	41.51	12.88	34.81

Note: All data from Current Population Survey, March and Annual Social and Economic Supplements, 1962 to 2014. Total volatility is the percentage standard deviation of the Hodrick-Prescott residual of average labor supply per person in each group. Cyclical volatility is the percentage deviation of the predicted value of a regression of the HP-residual on the HP-residual of GDP per capita. Hours share is share of each component in total hours. Volatility share is share of each group in the cyclical volatility of total hours.

Figure 1: Cyclical Component of Hours by Gender and Marital Status



Note: data on average weekly work hours for United States (Cyclical component is deviation from Hodrick-Prescott trend, smoothing parameter 6.25. Source: Current Population Survey, March and Annual Social and Economic Supplements, 1962 to 2014.

channel. We can see this, for example, by noting that there is also a large volatility gap between single women and single men.

A second important channel is the different sectoral composition of female and male employment. In typical recessions, sectors such as manufacturing and residential construction are much more severely affected compared to, say, education and health care. Men's employment is on average more concentrated in sectors with a high cyclical exposure, whereas women are highly represented in sectors with relatively stable employment over the cycle. These facts are documented in a recent paper by Coskun and Dalgic (2020). For example, they find that in two sectors, "Government" and "Education and Health Services," employment is actually countercyclical. These two sectors account for 40 percent of women's employment, but only 20 percent of men's employment. Conversely, the highly cyclical sectors of "Manufacturing," "Construction," and "Trade, Transportation, Utilities" account for 46 percent of male but only 24 percent of female employ-

ment.

These two channels are not exhaustive, and neither are they independent—for example, some women may choose to work in a countercyclical sector to compensate for their husbands' cyclical employment risk. But the bottom line is clear: past downturns have affected men's employment much more severely than that of women.

2.2 Gender Differences Based on Sectors Most Affected by COVID-19

We now turn to what is different about the current downturn during the COVID-19 pandemic. A principal difference is which sectors of the economy are likely to be most affected. Two factors are especially important:

1. Whether demand for the sector's output is affected by stay-at-home orders (e.g., no impact on sectors deemed "critical," such as pharmacies and grocery stores; large negative effect on sectors such as travel and hospitality).
2. Whether the nature of the work in the sector allows for telecommuting or not (e.g., larger impact on manufacturing vs. higher education and business services).

To assess how women and men in the labor market are exposed to the crisis, Table 2 provides an overview of how the dimensions of "critical" and "telecommutable" matter for male and female workers. Using data from the American Time Use Survey (ATUS) in 2017 and 2018, the table gives the fraction of workers in a given occupation that say that they are able to telecommute and whether they actually do telecommute. Occupations vary immensely by whether people say they are able to telecommute—ranging from 3% for *transportation and material moving* to 78% for *computer and mathematical*. The effective actual time that people do telecommute in normal times is small, however, as the third column in the table shows. For the current situation, however, the *ability* is a lot more relevant than past behavior.

To get a sense of what fraction of men and women work in telecommutable jobs, consider occupations where at least 50 percent of workers state they are able to

Table 2: Labor Force Across "Critical" and "Telecommutable" Occupations.

Occupation	Able to TC	Effective Annual TC	Employed Men	Employed Women	Critical Occupation
Transportation and Material Moving	3%	1	10%	2%	✓
Food Preparation and Serving	4%	2	4%	6%	
Building and Grounds Cleaning and Maintenance	4%	4	4%	3%	
Production	4%	4	8%	3%	
Healthcare Support	8%	13	1%	4%	✓
Construction	10%	4	8%	0%	
Farming, Fishing, and Forestry	11%	1	1%	0%	✓
Installation, Maintenance, and Repair	11%	10	6%	0%	✓
Extraction	13%	1	0%	0%	
Personal Care and Service	13%	21	2%	6%	
Protective Service	14%	4	3%	1%	✓
Healthcare Practitioners and Technicians	16%	17	3%	10%	✓
Technicians	18%	3	0%	0%	
Office and Administrative Support	26%	24	7%	19%	
Sales and Related	33%	35	10%	10%	
Education, Training, and Library	37%	36	3%	10%	
Community and Social Services	46%	46	1%	2%	
Life, physical, and social science	54%	24	1%	1%	
Arts, Design, Entertainment, Sports, and Media	57%	45	2%	2%	
Management,business, science, and arts	63%	44	13%	9%	
Legal	64%	35	1%	1%	
Business operations specialists	66%	60	2%	3%	
Architecture and engineering	67%	36	3%	1%	
Financial specialists	68%	37	2%	3%	
Computer and Mathematical	78%	66	4%	2%	

Note: The table reports the share of individuals in each occupation reporting they were able to work from home (column 1); the effective total days a year they actually did work from home (column 2); the share of all employed men and women in each occupation (column 3-4); and whether the occupation seems critical during the COVID-19 crisis. See the Appendix for an expanded set of results. Data Source: American Time Use Survey 2017-2018; American Community Survey 2017-2018.

telecommute. We find that that 28 percent of male workers but only 22 percent of female workers are employed in these highly telecommutable occupations. These numbers suggests that in terms of their occupations, more men than women will easily adapt to the changed work environment during the crisis. Conversely, more women will potentially face loss of employment, which is the opposite of the pattern in normal economic downturns.

The picture is less clear if we use a lower threshold for telecommutable jobs. For example, consider occupations where at least 25 percent of workers state that they are able to telecommute. 49 percent of male employees but a full 63 percent of female workers work in these occupations. Thus, if all workers in these occupations could carry on during the crisis, women would have the advantage. In reality, in each occupation only a fraction of jobs will be able to continue remotely, and this fraction is likely to correlate with the fraction of workers who stated in the pre-crisis survey that they have the ability to telecommute. In some occupations such as *Office and Administrative Support* and *Education, Training, and Library*, many workers will now be able to work from home, while in others, such as *Sales and Related*, include many sales jobs that cannot be done remotely (e.g. consider a cashier at a department store).

We also classified occupations by whether they are critical in the current situation, especially health care workers. According to this (rough) classification, 17 percent of employed women work in critical occupations, compared to 24 percent of all employed men. Hence, this second channel suggests once again that, unlike in usual economic downturns, women will be less protected from employment loss during the downturn. It is possible that this classification overstates women's exposure. The true share for women in critical occupations is likely higher once grocery store clerks are taken into account.[8] The true share of men, on the other hand, may be somewhat smaller since we classified men working in "transportation and material moving" as critical. Clearly, some transportation is needed to provide basic necessities such as food, and employment in food and online business delivery is rising. But public transportation is being scaled back

[8]To check this, a finer occupation classification is needed since the occupational category "Sales and Related" also includes many retail sector workers and other sales personnel who cannot work during the crisis.

in many places.

The bottom line is that based on ability to telecommute and working in critical occupations, we do not observe the pattern of usual recessions that women are more protected than men from employment loss. In fact, there are indications that women's employment will suffer more during the crisis based on these two factors. Even if the exposure of women and men in terms of their current occupations should turn out to be about the same, this would still be a big deviation from other recessions, where the employment consequences fell much more heavily on men.

In addition to exposure to job loss based on occupation, people's *ability* to continue working is also affected by the increase in child care needs during the crisis. Here, without question, women's exposure is much higher than that of men. We turn to this factor in the next section.

3 The Effect of COVID-19 on Child Care Needs

In the previous section, we focused on the impact of COVID-19 on different occupations, and hence ultimately on the labor demand for different occupations. Another salient aspect of the COVID-19 crisis is that it involves large-scale closures of daycare centers and schools, implying that children stay at home, where they have to be cared for and (if possible) educated. This poses particularly severe challenges for single parents. For parents who raise their children together, the division of childcare will depend on how much work flexibility each parent has in terms of working from home while also taking care of children. It will likely also depend on the current division of childcare within each family. In this section we characterize the family arrangements and work flexibility of parents in US households as well as the current division of labor on childcare among married couples.[9]

[9] In the future we also plan to assess the extent to which different family types can access paid family leave to perform childcare.

3.1 Household Arrangements and Single Mothers' Exposure to School and Daycare Closures

Types of family arrangements will play a large role in the current crisis for two reasons. First, as in usual recessions, job loss will be less severe financially if there is a second earner in the family. Second, the school closures are a large shock to all families with children, and even more so if there is only one parent in the household who has to deal with the sudden spike in child care needs.

To assess how many families are affected, Tables 3 and 4 summarize the distribution of living arrangements prior to the crisis. There are almost 130 million households in the United States. Slightly less than half are married couples (with and without children), 17 percent are single-parent households (i.e., "Family, Female Householder" and "Family, Male Householder") and 35 percent are non-family households, which are mostly singles living by themselves. There are around 15 million single mothers, accounting for just under 70 percent of all single parent households.[10]

Table 3: Households by Type in United States

Total # of Households	128,579	100%
Married Couples	61,959	48%
Family, Male Householder	6,480	5%
Family, Female Householder	15,043	12%
Non-family, Male Householder	21,582	17%
Non-family, Female Householder	23,515	18%

Note: Thousands in 2019. Source: US Census Bureau, Table HH-1.

Therefore, like in normal recessions, about half of all households have some possibility to insure job loss through spousal income—either because there is already a second earner in the household, or because the spouse could enter the labor force. What is very different from past recessions is the sudden spike in childcare

[10]Note that the data in Table 3 for the "Family" categories includes families with children of all ages, including those over 18 years old, as long as children live in the same household as the parent.

needs caused by the school and daycare closures. This will affect all households with school-age children or below. Single parents (17 percent of all households) will be particularly hard hit, and as Table 3 shows, there are more than 8.5 million more single mothers than single fathers in the United States today.

Table 4: Living Arrangements of Children in the United States

Total children under 18	73,525	100%
Two parents	51,561	70%
Mother only	15,764	21%
Father only	3,234	4%
Other relatives	2,319	3%
Non-relatives	647	1%

Note: Thousands in 2019. Source: US Census Bureau, Table ch1.

To get a clearer picture of the importance of school closures, note that there are currently 73.5 million children under 18 in the United States (see Table 4). Of these, 70 percent live in two-parent families, while most of the others live in single-parent households. 21 percent of all children live only with their mother, compared to 4 percent living with their father only. Thus, the current crisis will affect mothers very disproportionately. If all schools in the US are closed for a prolonged period, so that single mothers cannot work, then 21 percent of all children are at risk of living in poverty. In normal times, many alternative forms of childcare arrangements are used. However, many daycare centers have been ordered closed. Informal care performed by grandparents, other relatives, friends, or neighbors is being discouraged or prevented by shelter-in-place orders to slow down the spread of the virus. There is little room for alternative arrangements in the COVID-19 crisis.

3.2 Childcare Provision Within Married Couples

Among married couples, who is likely to bear the majority of increased childcare needs due to school and daycare closures? The answer to this question depends on at least three things. First, the the current work arrangements within married

couples (both members of the couple working versus just one member working) will play a large role. Second, the division of the increased childcare needs will also likely mirror existing disparities between men and women in hours spent on childcare. Third, among dual-earner couples, the ability to telecommute and whether one or both members of the couple work in critical sectors will also play a role in determining how couples adjust to the increased need to spend time on childcare. We explore each of these issues in turn in the remainder of this section.

Table 5 summarizes the distribution of family types across work arrangements in the American Community Survey for married couples with children. Dual full-time earner couples account for 44 percent of all couples with children. This group is heavily affected by the rise in child care needs. Families with the traditional division of labor of the husband having a full-time job and the wife staying at home will have to make far fewer adjustments to respond to the school closures. However, as the table shows, today this group accounts for only 25 percent of married couples with children. Only 5 percent of couples are in the opposite arrangement of the husband staying at home and the wife working full time, underlining once again that more women than men will be strongly affected by the rise in child care needs.

Table 5: Distribution of couples with children by employment status

Married Couples		Wives		
		Not Employed	*Part-Time*	*Full-Time*
Husbands	*Not Employed*	4%	1%	5%
	Part-Time	1%	1%	2%
	Full-Time	25%	15%	44%

Note: The table reports the share of couples by employment and full-time, part-time status of each spouse. Not Employed includes unemployed individuals and those not in the labor force. Source: American Community Survey, 2017-2018.

The division of the increased burden of childcare between women and men will depend not just on labor force status (which Table 5 summarizes), but also on the existing division of labor. Even among couples who both work, one spouse

often provides the majority of child care. It is likely that any increase in child care needs will fall disproportionately on this main provider.

Survey data from the ATUS shows that married women provide more childcare than married men on average. Among all married couples with children, the husbands provide 7.4 hours of child care per week on average, versus 13.3 hours for the wives.[11] Households with young children have higher childcare needs, but the male vs. female ratio is almost the same: conditional on children up to the age of 5, married men provide 10.9 hours of childcare, versus 19.8 hours per week for married women. Of course, some of this gap arises because there are more stay-at-home moms than stay-at-home dads. But even if we condition on both spouses being employed full time, a large gap remains. Among the full time employed, married men provide 7.2 hours of child care per week versus 10.3 hours for married women. Conditional on having at least one child up to the age of 5, the numbers are 10.6 hours for married men versus 16.8 hours for married women. Thus, married women provide close to 60 percent of child care even among couples who work full time, and an even higher share if they have young children, when childcare needs are the highest.[12] Similarly, if attention is restricted to the division of childcare hours performed during typical working hours for children of all ages (8AM-6PM, Monday through Friday), women provide an even larger fraction, around 70 percent, of childcare during working hours (Schoonbroodt 2018).

It appears likely that much of this uneven distribution of the burden of childcare will persist during the current crisis; the factors that initially led to this arrangements (which could include relative income, relative bargaining power, and the influence of traditional social norms and role models, see Schoonbroodt 2018) will continue to apply, and "retraining" one spouse on short notice may not be practical. If we assume that the relative distribution of the burden stays at 60-40 and childcare needs rise by 20 hours/week during the crisis, full-time working women would need to increase their childcare hours by 12 hours vs. 8 for men.

[11] These numbers are based on time use data for the 16–65 population.

[12] The observation that women provide the majority of childcare even if both spouses are working holds true across industrialized countries. However, the size of the gap between women's and men's contributions varies substantially (Doepke and Kindermann 2019).

In the absence of flexible work arrangements, another likely outcome is that one spouse will temporarily have to quit work, which based on the existing division of labor would again be much more likely to be the wife.

3.3 Employment Flexibility for Men vs. Women

In addition to the existing division of the burden of childcare, the impact of the crisis will also depend on the relative flexibility of men's and women's work arrangements, in particular the ability to telecommute. Table 6 shows that among all individuals with kids, married women spent the most time telecommuting in 2017 and 2018, averaging 41 days per year. Married men are best-equipped to telecommute (45% are able to) but spend fewer days actually telecommuting than married women. Single parents, both women and men, are much less able to telecommute, driving home our earlier point that school closures will be extremely difficult for single parents, most of whom are women, to navigate while continuing to work.

Table 6: Telecommuting, for those with children by marital status and gender

	Can Telecommute	Did Telecommute	Days Telecommute
single men	17%	14%	15
single women	21%	18%	19
married men	45%	39%	30
married women	42%	38%	41

Note: Table reports those who said they are able to telecommute (column 1); those that were able and did telecommute (column 2); and the approximate days per year telecommuting, for those which were able. Source: American Time Use Survey, 2017-2018.

When examining the reported reasons that parents telecommuted, married women were the group most likely to report staying at home for personal reasons, which would include managing childcare (Table 7). To summarize, this evidence shows that women and men's ability to telecommute is similar, but women have been more likely to actually telecommute, in particular to deal with "personal" issues such as child care, which once again underlines the uneven existing distribution of labor in the household.

Table 7: Reason Working from Home, for those with children by marital status.

	single men	*single women*	*married men*	*married women*
catch-up work	14%	23%	20%	23%
required	11%	12%	13%	14%
coordinate personal	21%	26%	25%	30%
reduce commute	14%	4%	8%	9%
preference	19%	15%	19%	13%
weather	4%	4%	2%	1%
other	1%	1%	2%	1%

Note: The table reports the reasons given for working from home (for those who ever did work from home).
Source: American Time Use Survey, 2017-2018

In summary, the evidence suggests that women will be vastly more affected by the rise in childcare needs that follows from closures of schools and daycare centers during the crisis. The 15 million single mothers in the United States will be the most severely affected, with little potential for accessing other sources of childcare under social isolation orders, and little possibility to continue working during the crisis. Supporting these women and their children during the crisis is among the most immediate and important policy challenges.

Even among couples raising their children together, there are clear indications that women will be much more affected by rising childcare requirements. There are already many more married women than men who are stay-at-home parents and who are likely to pick up most of the increase in the workload. And among the many couples with children who both work full time (44 percent of the total), the women provide about 60 percent of childcare hours. In times of high childcare needs (i.e. when children are young), the women's share is even higher. It is likely that much of this division of labor will persist. For some working married women, this will mean that they will temporarily drop out of the labor force. Others will continue to work from home—including, for example, mothers on the tenure track at an academic institution—but they will be more impaired in their ability to actually get work done compared to married men in the same sit-

uation. While these women are in a more favorable situation compared to single mothers, they may still face severe setbacks in terms of career progression and their future earnings potential.

4 The Effect of COVID-19 on Workplace Flexibility and Gender Norms

The discussion so far shows that the COVID-19 shock is likely to place a disproportionate burden on women. Unlike regular recessions, the COVID-19 downturn is likely to reduce employment in sectors where women make up a large fraction of the workforce. Perhaps even more importantly, women will be affected by the increase in child care needs that stems from closings of schools and daycare centers. This impact is the most severe for single mothers, who outnumber single fathers by a large margin. In families where both parents are present, mothers usually did the majority of child care before the crisis. If the relative division of labor in the family persists during the crisis, this suggests that there will be a disproportionate impact on women even for these families.

Nevertheless, there are also counteracting forces that may promote gender equality during the recovery from the current crisis. We believe that two channels are likely to be important:

1. **More flexible work arrangements:** Many businesses are currently adopting work-from-home and telecommuting options at a wide scale for the first time. It is likely that some of these changes persist, leading to more workplace flexibility in the future. Given that mothers currently carry a disproportionate burden in combining work and child care duties, they stand to benefit relatively more than men from these changes. Goldin (2010) points to lack of flexibility in work arrangements and hours, particularly in financial and business services, as one of the last sources of the gender pay gap.

2. **Changes in social norms and role models:** Many fathers will now also shoulder additional child care and home-schooling responsibilities. In a sizeable number of families, fathers will temporarily turn into primary child

care providers. These changes are likely to push social norms towards more equality in the provision of child care and house work.

4.1 The Role of Workplace Flexibility

Consider, first, the role of more flexible work arrangements. If there is a persistent increase in the ability to work from home for women and men alike, how will the division of labor in the household change? We can get a sense of the potential impact by comparing the time spent on child care between parents who can work from home and those who cannot. Table 8 provides evidence on this by comparing the average weekly childcare hours of husbands and wives conditional on the occupation type of each spouse. Occupations are split into “Critical" (same classification as Table 2), “Tele", non-critical occupations where at least 50% of ATUS respondents reported being able to telecommute, and “Non-Tele", non-critical occupations where fewer than 50% reported being able to telecommute. First of all, we observe that husbands who don’t work and are married to women who do carry the majority of childcare duties in their households (first three rows of the last panel). They do a lot less childcare than women in the same situation (rows 4, 8, 12)—social norms still matter—but still, the result shows that availability for child care has a large impact on the actual distribution.

More importantly, we observe a similar effect when we look at the impact of telecommuting. Consider couples where the wife is not able to telecommute and is either in the “Non-Tele” or “Critical” groups. In this case, if the husband is in an occupation with a high ability to telecommute, weekly childcare hours of the husband are about two hours higher per week compared to husbands in “Non-Tele” occupations (6 vs. 4 hours, i.e. a 50 percent difference). Notice that being in such an occupation does not imply that most of these men actually telecommute on a regular basis. Nevertheless, the added flexibility of these jobs is reflected in a much higher participation of men in childcare, as long as their wives do not have the same flexibility.

Right now, many businesses are adopting work-from-home options on a large scale. It is likely that a sizeable fraction of this additional flexibility will stay in place after the actual crisis. Once businesses have invested in remote-working

Table 8: Childcare by Family Occupational Group

Family Group (*husband, wife*)	**Husbands Childcare** (*weekly hours*)	**Wives Childcare** (*weekly hours*)	**Husbands High Childcare** (*percent of group*)
(Non-Tele, Non-Tele)	4	7	17%
(Non-Tele, Tele)	6	8	20%
(Non-Tele, Critical)	4	7	20%
(Non-Tele, Not Employed)	6	12	26%
(Tele, Non-Tele)	6	8	21%
(Tele, Tele)	6	7	23%
(Tele, Critical)	6	5	24%
(Tele, Not Employed)	6	12	24%
(Critical, Non-Tele)	3	5	12%
(Critical, Tele)	6	7	18%
(Critical, Critical)	5	8	18%
(Critical, Not Employed)	4	17	14%
(Not Employed, Non-Tele)	8	6	25%
(Not Employed, Tele)	9	6	27%
(Not Employed, Critical)	9	4	21%
(Not Employed, Not Employed)	4	11	13%

Note: The table reports the average childcare hours per week by spouse for each family occupation group for all married couples. Groups are reported in column one as (husband, wife) pairs. The final column ("High Husband Childcare") reports the share of husbands in this family group which provide childcare hours in excess of the average married woman in the economy. TC classifications by 50% cutoff, see Table 2. Source: American Time Use Survey 2017-2018; American Community Survey 2017-2018.

technology and the learning-by-doing that is involved in the transition has taken place, going back all the way to the status quo is not attractive. As a result, many workers will benefit from added flexibility in combining career and child care needs. This change will be a benefit to both mothers and fathers, but given that currently mothers carry the majority of the burden of child care, in relative terms they are likely to gain more, both because of added flexibility in their own work and because of more contributions from their husbands.

4.2 Existing Evidence on Persistent Changes to Gender Norms

One central force behind the uneven division of the burden of childcare between women and men is persistent social norms. Is there a possibility that the COVID-19 shock will push these norms towards more gender equality? To assess this possibility, we can draw a parallel between the COVID-19 crisis and the last major shock to women in the labor market, namely World War II. During the war, millions of women entered the labor force to replace men in factories and other workplaces. The impact of the war shock was particularly large for married women with children, who in the pre-war economy had very low labor force participation rates. A large literature documents that the shock of World War II had a large and persistent effect on female employment.[13]

While some of this impact was at the individual level (i.e., women who entered the labor force during the war increased their employment also after the war), another component works through shifting cultural norms. Fernández, Fogli, and Olivetti (2004) show that boys who grow up in a family where the mother is working are later on more likely to be married to women who also work (they use the World-War-II shock to identify the size of this effect). This observation is suggestive of an impact on social norms: these boys observed a more equal sharing of duties at home and in the labor market between their parents compared to single-earner families, which had repercussions for which they desired in their own families.[14] There is also evidence that shifting social norms and beliefs were

[13] See for example Acemoglu, Autor, and Lyle (2004) and Goldin and Olivetti (2013). Doepke, Hazan, and Maoz (2015) argue that the persistent impact of World War II on the female labor market was also one of the root causes of the post-war baby boom.

[14] See Grosjean and Khattar (2018) for evidence of persistence in gender norms over even longer periods.

one cause of the secular rise in the labor force participation of married women from the 1960s to the 1990s. Fernández (2013) and Fogli and Veldkamp (2011) argue that women gradually learned, by observing other working women in their family and neighborhoods, about the true costs and benefits of being in the working force (including potential effects of working on children). As more women worked, there were observations to learn from, which accelerated the transition to higher levels of female labor force participation.

4.3 Fathers' Childcare Responsibilities During the COVID-19 Crisis and the Evolution of Gender Norms

The example of World War II suggests that temporary changes to the division of labor between the sexes have long-run effects. How is this likely to play out during the COVID-19 crisis? Here an important question is how much fathers' child care responsibilities will increase. Many fathers will be working from home during the crisis while also taking on child care responsibilities. The mere fact of being at home rather than at a workplace is likely to increase men's child care responsibilities. This effect is likely to be large during the crisis, because given that schools and daycare centers are closed, the overall need for child care is much higher. Hence, even if (as is likely) on average women will shoulder the majority of the increase, many fathers will still experience a large increase in their child care hours. It is likely that this higher exposure will have at least some persistent effect on future contributions to child care, be it through learning by doing, more information about what kids are actually doing all day, or through increased attachment to children.

We would expect even bigger effects within families where the COVID-19 crisis also results in a shift in the relative distribution of childcare hours towards men. One group for which this is likely to be the case is families where the mother is already staying at home, but the father previously worked out of the house and is now either working at home or not employed. We expect the biggest impact on the division of labor among couples where, because of the COVID-19 crisis, fathers temporarily turn into the main provider of child care. We expect this to be the case for couples where both parents are currently in the labor force, and where the father is able/forced to work from home during the crisis, while the mother is

not. For example, this would be the case if the mother is in a "critical" occupation (such as a medical doctor or other healthcare professional who can't work from home), whereas the father is in an occupation that switches to telecommuting during the crisis (such as education and a lot of non-critical office work).

Table 9 provides an impression of the magnitudes involved. The table describes the distribution of couples among employment vs. non-employment for each spouse, where employment is further broken down in critical occupations and, among the non-critical ones, occupations with a low and high ability to telecommute. Consider the bottom panel, which displays this data for married couples with children. During a stay-at-home order with only critical occupations exempt, we expect all non-critical workers to be at home. In nine percent of households, the wife is in a critical occupation (such as medical doctor) while the husband is not. In these households, we expect the husbands to temporarily turn into the main providers of childcare. While this group is obviously a minority, it still consists of millions of households, suggesting that during the height of the crisis seeing men as the main providers of child care will be much more common than previously.

We can also consider what happens if workplaces resume but schools remain closed. In this case, we would expect most workers with the ability to telecommute to continue working from home. We see that in 12 percent of married couples with children the husband is in an occupation with a high ability to telecommute, while the wife is not ("Non-Tele" or "Critical"). Hence, in this scenario the number of men turning into main providers of child care is even higher.

We therefore see that the crisis is likely to generate a large, if temporary, upward shift in men's participation in child care, with a sizeable fraction of married men taking the main responsibility, in most cases for the first time. Based on the persistent effects of other shocks to the household distribution of labor in the past, we expect this shift to lead to a substantial increase in men's future participation in child care.

In assessing these effects, it bears emphasizing that the changes imposed on households by the current crisis are very large. The existing literature on the effects of paternity leave (i.e., parental leave reserved exclusively for fathers)

Table 9: Distribution of Couples by Family Group

All Couples	Wife Non-Tele	Wife Tele	Wife Crit	Wife Non-Emp	*Total*
Husb Non-Tele	16%	5%	4%	10%	36%
Husb Tele	9%	7%	3%	7%	27%
Husb Critical	8%	2%	3%	6%	19%
Husb Non-Emp	5%	2%	2%	11%	19%
Total	38%	17%	12%	34%	100%
No Children	Wife Non-Tele	Wife Tele	Wife Crit	Wife Non-Emp	*Total*
Husb Non-Tele	15%	5%	4%	7%	32%
Husb Tele	9%	7%	3%	6%	25%
Husb Critical	7%	2%	3%	4%	17%
Husb Non-Emp	6%	2%	2%	17%	26%
Total	37%	18%	11%	34%	100%
With Children	Wife Non-Tele	Wife Tele	Wife Crit	Wife Non-Emp	*Total*
Husb Non-Tele	17%	5%	5%	11%	38%
Husb Tele	9%	7%	3%	8%	28%
Husb Critical	8%	2%	4%	6%	21%
Husb Non-Emp	4%	1%	1%	7%	13%
Total	38%	16%	13%	33%	100%

Note: The table reports the share of couples by husband-wife occupation types. Telecommuting classifications are made according to the TC 50% cut-off. Source: American Time Use Survey 2017-2018; American Community Survey 2017-2018.

finds effect for relatively small changes; for example, Farré and González (2019) provide evidence that the introduction of just two weeks of paternity leave for fathers in Spain had persistent effects on the division of labor within couples. During the current crisis, many millions of men are on a form of forced paternity leave for a much longer period, and a sizeable fraction will be the main providers of childcare during this time. Hence, even while women carry a higher burden during the crisis, it is still highly likely that we will observe a sizeable impact of this forced experiment on social norms, and ultimately on gender equality, in the near future.

5 Outlook and Policy Options

We conclude with thoughts on policy options. Although in the last section we pointed out channels that may ultimately lead to a reduction in gender inequality, we should keep in mind that the challenges for families during the current crisis are unprecedented, severe, and falling disproportionately on those least able to respond, such as low-income single mothers. There are a number of policy options available that governments could use to address specific challenges families are likely to face during the coming crisis. Examples of policies that might be considered to address these challenges include:

1. Government subsidies to replace pay for workers who need to provide child care during the crisis due to school and daycare closures and are therefore unable to work, conditional on a continued employment relationship (i.e., workers can return to work immediately after the crisis).

2. Suspending work requirements for government assistance programs such as Temporary Assistance for Needy Families (TANF) and Medicaid until school and daycare centers re-open.

3. Removing the requirement to be actively seeking work to be eligible for unemployment insurance over the same period.

4. Extending unemployment benefits to workers voluntarily separating from employment to provide child care.

This is not a comprehensive list, and each policy involves tradeoffs with factors such as budgetary impact and work incentives. However, the policies provide examples of how some of the specific challenges posed by the COVID-19 crisis could be addressed. Indeed, some countries such as Germany and Denmark have already adopted measures that allow workers to remain on their employers' payroll during the crisis despite working zero or reduced hours. In the United States, an additional factor relevant for the evaluation of measures that protect employment is that health insurance is often employment based. Hence, protecting employment would have an additional effect of preserving health insurance.

The COVID-19 also raises policy questions for employers. Many universities are already extending tenure clocks for all junior faculty as a response to the COVID-19 epidemic. But recent evidence from Antecol, Bedard, and Stearns (2018) suggests that gender blind tenure clock extensions for parents actually reduce female tenure rates and increase male tenure rates, likely because of differences in time spent on childcare. Given the unavailability of other forms of childcare, during the crisis the gap between the ability of junior faculty with and without children to get research done will be extremely large. While faculty without children may still suffer from stress during this period, their time available to work is likely to actually increase, given that time use for other activities, such as socializing with others, declines during social isolation.[15] Extending the tenure clock indiscriminately for all current junior faculty, as a number of universities have already implemented, would not address this disparity, which hits women stronger than men. Similar mechanisms are at work in corporate settings where bonuses are tied to hours worked: mothers will likely find it harder to meet these targets because of childcare provision during the crisis while most men will not, exacerbating the gender wage gap.

Finally, there will be other consequences of the current crisis that will fall disproportionately on women that are outside the scope of this paper that we leave to future research. In normal recessions, incidents of domestic violence increase (Siflinger, Tertilt, and van den Berg 2012). With families cooped up inside, these risks will further increase and women are much more likely than men to be the

[15] Aguiar et al. (2018) report that young men spend about eight hours per week socializing.

victims of domestic violence. Further, some states are restricting access to abortions during the crisis, and the impact of the pandemic on fertility more broadly remains to be seen. We plan to expand our analysis to some of these dimensions in future research.

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Table 10: Occupational Telecommuting and Distribution of Employed Workers by Type

Occupation	Able to TC	Effective Annual TC	All Men	All Women	Single Women No Children	Single Women With Children	Married Women No Children	Married Women With Children	Critical Occupation
Transportation and Material Moving	3%	1	10%	2%	2%	3%	2%	2%	✓
Food Preparation and Serving	4%	2	4%	6%	9%	7%	3%	3%	
Building and Grounds Cleaning and Maintenance	4%	4	4%	3%	3%	5%	2%	3%	
Production	4%	4	8%	3%	3%	5%	3%	3%	
Healthcare Support	8%	13	1%	4%	4%	6%	3%	3%	✓
Construction	10%	4	8%	0%	0%	0%	0%	0%	
Farming, Fishing, and Forestry	11%	1	1%	0%	0%	0%	0%	0%	✓
Installation, Maintenance, and Repair	11%	10	6%	0%	0%	0%	0%	0%	✓
Extraction	13%	1	0%	0%	0%	0%	0%	0%	
Personal Care and Service	13%	21	2%	6%	7%	7%	5%	5%	
Protective Service	14%	4	3%	1%	1%	1%	1%	1%	✓
Healthcare Practitioners and Technicians	16%	17	3%	10%	8%	9%	11%	13%	✓
Technicians	18%	3	0%	0%	0%	0%	0%	0%	
Office and Administrative Support	26%	24	7%	19%	19%	20%	22%	18%	
Sales and Related	33%	35	10%	10%	13%	10%	9%	8%	
Education, Training, and Library	37%	36	3%	10%	8%	7%	10%	13%	
Community and Social Services	46%	46	1%	2%	2%	2%	3%	3%	
Life, physical, and social science	54%	24	1%	1%	1%	0%	1%	1%	
Arts, Design, Entertainment, Sports, and Media	57%	45	2%	2%	3%	1%	2%	2%	
Management,business, science, and arts	63%	44	13%	9%	8%	8%	11%	11%	
Legal	64%	35	1%	1%	1%	1%	1%	1%	
Business operations specialists	66%	60	2%	3%	3%	3%	4%	3%	
Architecture and engineering	67%	36	3%	1%	1%	0%	1%	1%	
Financial specialists	68%	37	2%	3%	2%	2%	3%	3%	
Computer and Mathematical	78%	66	4%	2%	2%	1%	2%	2%	

Note: Column (1) reports the share of all workers in the occupation who said they were able to telecommute to work if they wanted to. For those who reported being able to telecommute, Column (2) reports the annualized number days they actually did telecommute to work. Column (3)-(7) report the share of all employed women, also conditional on marital status and children, who are in each occupational category. The final column identifies critical occupations during the COVID-19 crisis. Soure: Ameriacan Time Use Survey 2017-2018; American Community Survey 2017-2018.

Table 11: Frequency Working from Home, by gender, marital status, and children

All Couples	*single men*	*single women*	*married men*	*married women*
5+ per week	7%	7%	6%	11%
3-4 per week	5%	5%	4%	7%
1-2 per week	7%	10%	7%	10%
At least 1 per week	6%	6%	6%	6%
Once every 2 weeks	9%	6%	7%	6%
Once a month	6%	7%	10%	5%
Less than once a month	8%	8%	11%	9%
No Children	*single men*	*single women*	*married men*	*married women*
5+ per week	7%	6%	4%	11%
3-4 per week	4%	5%	7%	8%
1-2 per week	8%	11%	6%	10%
At least 1 per week	5%	6%	7%	3%
Once every 2 weeks	9%	6%	6%	7%
Once a month	7%	7%	7%	5%
Less than once a month	9%	9%	9%	8%
With Children	*single men*	*single women*	*married men*	*married women*
5+ per week	7%	10%	7%	9%
3-4 per week	5%	8%	4%	6%
1-2 per week	3%	8%	8%	10%
At least 1 per week	11%	5%	5%	7%
Once every 2 weeks	1%	5%	7%	6%
Once a month	1%	8%	10%	6%
Less than once a month	3%	5%	12%	10%

Note: The table reports the frequency of working from home (for those able to work from home) by gender, marital status, and children. Source: American Time Use Survey, 2017-2018.

Table 12: Family Member Characteristics by Family Group

Family Group	**Husbands**						**Wives**					
(Husband, Wife)	*Share BA*	*Age*	*Income*	*Hours Worked*	*Own Children*	*Own Child < 5*	*Share BA*	*Age*	*Income*	*Hours Worked*	*Own Children*	*Own Child < 5*
(Non-Tele , Non-Tele)	7%	44	$ 40,740	42	1.3	0.2	9%	42	$ 24,022	35	1.3	0.2
(Non-Tele , Tele)	13%	45	$ 51,906	43	1.1	0.2	39%	43	$ 43,458	38	1.1	0.2
(Non-Tele , Crit)	11%	44	$ 48,893	42	1.2	0.2	34%	42	$ 42,492	37	1.2	0.2
(Non-Tele , Non-Emp)	7%	45	$ 48,784	43	1.5	0.4	12%	43	$ 5,593	5	1.5	0.4
(Tele , Non-Tele)	45%	45	$ 73,531	44	1.1	0.2	28%	43	$ 26,739	33	1.1	0.2
(Tele , Tele)	68%	45	$ 97,625	45	1.0	0.2	71%	44	$ 61,786	39	1.0	0.2
(Tele , Crit)	64%	44	$ 87,432	44	1.2	0.3	71%	42	$ 63,173	37	1.2	0.3
(Tele , Non-Emp)	64%	47	$ 128,949	45	1.4	0.3	51%	45	$ 8,227	5	1.4	0.3
(Crit , Non-Tele)	12%	45	$ 49,638	44	1.2	0.2	11%	43	$ 23,232	35	1.2	0.2
(Crit , Tele)	26%	45	$ 68,685	45	1.1	0.2	47%	43	$ 45,970	38	1.1	0.2
(Crit , Crit)	34%	44	$ 76,418	45	1.2	0.3	50%	42	$ 55,167	38	1.2	0.3
(Crit , Non-Emp)	23%	46	$ 76,600	46	1.4	0.4	23%	44	$ 6,276	5	1.4	0.4
(Non-Emp , Non-Tele)	10%	50	$ 18,353	10	1.0	0.1	9%	48	$ 25,296	35	1.0	0.1
(Non-Emp , Tele)	30%	52	$ 27,530	11	0.8	0.1	47%	49	$ 59,588	39	0.8	0.1
(Non-Emp , Crit)	25%	50	$ 23,468	10	0.9	0.2	44%	47	$ 57,757	39	0.9	0.2
(Non-Emp , Non-Emp)	25%	55	$ 36,679	8	0.7	0.1	24%	53	$ 15,201	4	0.7	0.1

Note: The table reports various characteristics of husbands and wives which are members of each of the major occupational groups we study. TC cutoff at 50%. Source: American Time Use Survey 2017-2018; American Community Survey, 2017-2018.

Table 13: Family Member Characteristics by Family Group

Family Group				**Husbands**						**Wives**		
(Husband, Wife)	*Share BA*	*Age*	*Income*	*Hours Worked*	*Own Children*	*Own Child < 5*	*Share BA*	*Age*	*Income*	*Hours Worked*	*Own Children*	*Own Child < 5*
(Non-Tele , Non-Tele)	28%	45	$ 56,406	43	1.1	0.2	36%	43	$ 35,955	37	1.1	0.2
(Non-Tele , Tele)	44%	45	$ 70,005	43	1.0	0.2	66%	43	$ 68,675	41	1.0	0.2
(Non-Tele , Crit)	29%	44	$ 56,542	43	1.2	0.3	47%	42	$ 49,502	37	1.2	0.3
(Non-Tele , Non-Emp)	23%	46	$ 65,224	43	1.5	0.4	22%	44	$ 6,485	5	1.5	0.4
(Tele , Non-Tele)	66%	46	$ 101,251	45	1.1	0.2	61%	44	$ 43,862	36	1.1	0.2
(Tele , Tele)	79%	45	$ 118,996	45	1.0	0.2	83%	43	$ 85,849	41	1.0	0.2
(Tele , Crit)	72%	44	$ 101,111	45	1.2	0.3	76%	42	$ 66,159	37	1.2	0.3
(Tele , Non-Emp)	72%	47	$ 147,243	46	1.4	0.3	57%	45	$ 8,362	5	1.4	0.3
(Crit , Non-Tele)	20%	45	$ 60,479	44	1.2	0.2	31%	43	$ 33,622	37	1.2	0.2
(Crit , Tele)	34%	45	$ 77,602	45	1.1	0.2	63%	43	$ 64,584	40	1.1	0.2
(Crit , Crit)	34%	44	$ 76,418	45	1.2	0.3	50%	42	$ 55,167	38	1.2	0.3
(Crit , Non-Emp)	23%	46	$ 76,600	46	1.4	0.4	23%	44	$ 6,276	5	1.4	0.4
(Non-Emp , Non-Tele)	20%	51	$ 24,082	10	0.9	0.1	28%	49	$ 37,426	37	0.9	0.1
(Non-Emp , Tele)	41%	51	$ 28,942	11	0.8	0.1	65%	49	$ 89,019	42	0.8	0.1
(Non-Emp , Crit)	25%	50	$ 23,468	10	0.9	0.2	44%	47	$ 57,757	39	0.9	0.2
(Non-Emp , Non-Emp)	25%	55	$ 36,679	8	0.7	0.1	24%	53	$ 15,201	4	0.7	0.1

Note: The table reports various characteristics of husbands and wives which are members of each of the major occupational groups we study. TC cutoff at 25%. Source: American Time Use Survey 2017-2018; American Community Survey, 2017-2018.

Table 14: Childcare by Family Occupational Group

Family Group (*husband , wife*)	**Husbands Childcare** (*weekly hours*)	**Wives Childcare** (*weekly hours*)	**Husbands High Childcare** (*percent of group*)
(Non-Tele , Non-Tele)	4	7	14%
(Non-Tele , Tele)	4	6	13%
(Non-Tele , Critical)	5	5	23%
(Non-Tele , Not Employed)	5	11	20%
(Tele , Non-Tele)	7	10	17%
(Tele , Tele)	5	7	22%
(Tele , Critical)	5	7	22%
(Tele , Not Employed)	7	13	27%
(Critical , Non-Tele)	1	3	4%
(Critical , Tele)	4	6	17%
(Critical , Critical)	5	8	18%
(Critical , Not Employed)	4	17	14%
(Not Employed , Non-Tele)	9	6	26%
(Not Employed , Tele)	8	6	26%
(Not Employed , Critical)	9	4	21%
(Not Employed , Not Employed)	4	11	13%

Note: The table reports the average childcare hours per week by spouse for each family occupation group. Groups are reported in column one as (husband, wife) pairs. The final column ("High Husband Childcare") reports the share of husbands in this family group which provide childcare hours in excess of the average married woman in the economy. TC classifications by 25% cutoff. Source: American Time Use Survey 2017-2018; American Community Survey 2017-2018.

Table 15: Distribution of Couples by Family Group

All Couples	Wife Non-Tele	Wife Tele	Wife Crit	Wife Non-Emp	*Total*
Husb Non-Tele	4%	8%	2%	6%	20%
Husb Tele	3%	24%	5%	11%	42%
Husb Crit	2%	8%	3%	6%	19%
Husb Non-Emp	1%	5%	2%	11%	19%
Total	10%	44%	12%	34%	100%
No Children	Wife Non-Tele	Wife Tele	Wife Crit	Wife Non-Emp	Total
Husb Non-Tele	3%	8%	2%	4%	17%
Husb Tele	3%	24%	4%	9%	40%
Husb Crit	2%	7%	3%	4%	17%
Husb Non-Emp	2%	6%	2%	17%	26%
Total	9%	45%	11%	34%	100%
With Children	Wife Non-Tele	Wife Tele	Wife Crit	Wife Non-Emp	Total
Husb Non-Tele	4%	8%	3%	7%	22%
Husb Tele	3%	23%	5%	13%	44%
Husb Crit	2%	8%	4%	6%	21%
Husb Non-Emp	1%	4%	1%	7%	13%
Total	10%	44%	13%	33%	100%

Note: The table reports the share of couples by husband-wife occupation types. Telecommuting classifications are made according to the TC 25% cut-off. Source: American Time Use Survey, 2017-2018; American Community Survey, 2017-2018.

Table 16: Distribution of Couples by employment status

All Couples		Wives		
		Not Employed	*Part-Time*	*Full-Time*
Husbands	*Not Employed*	6%	2%	6%
	Part-Time	2%	1%	3%
	Full-Time	22%	13%	45%
No Children		Wives		
		Not Employed	*Part-Time*	*Full-Time*
Husbands	*Not Employed*	9%	2%	8%
	Part-Time	2%	2%	4%
	Full-Time	17%	10%	46%
With Children		Wives		
		Not Employed	*Part-Time*	*Full-Time*
Husbands	*Not Employed*	4%	1%	5%
	Part-Time	1%	1%	2%
	Full-Time	25%	15%	44%

Note: The table reports the share of couples by employment and full-time, part-time status of each spouse.
Source: American Community Survey, 2017-2018.

Table 17: Telecommuting by Gender, Marital Status, and Children

All Individuals	Can Telecommute	Did Telecommute	Days Telecommute
single men	24%	19%	17
single women	27%	23%	21
married men	42%	37%	29
married women	39%	34%	38
No Children			
single men	26%	21%	17
single women	30%	26%	23
married men	37%	32%	25
married women	33%	28%	33
With Children			
single men	17%	14%	15
single women	21%	18%	19
married men	45%	39%	30
married women	42%	38%	41

Note: Table reports those who said they are able to telecommute (column 1); those that were able and did telecommute (column 2); and the approximate days per year telecommuting, for those which were able. Source: American Time Use Survey, 2017-2018.

Table 18: Reasons Working for Home, by Gender, Marital Status, and Children

All Individuals	*single men*	*single women*	*married men*	*married women*
catch-up work	16%	20%	20%	23%
required	14%	12%	13%	14%
coordinate personal	14%	20%	22%	25%
reduce commute	9%	6%	9%	8%
preference	22%	21%	19%	16%
weather	3%	5%	2%	2%
other	2%	1%	2%	1%
No Children	*single men*	*single women*	*married men*	*married women*
catch-up work	17%	19%	21%	24%
required	14%	12%	14%	14%
coordinate personal	13%	17%	14%	13%
reduce commute	8%	8%	11%	8%
preference	23%	24%	21%	22%
weather	2%	5%	4%	5%
other	2%	1%	2%	0%
With Children	*single men*	*single women*	*married men*	*married women*
catch-up work	14%	23%	20%	23%
required	11%	12%	13%	14%
coordinate personal	21%	26%	25%	30%
reduce commute	14%	4%	8%	9%
preference	19%	15%	19%	13%
weather	4%	4%	2%	1%
other	1%	1%	2%	1%

Note: The table reports the reasons given for working from home (for those who ever did work from home) broken down by gender, marital status, and children. Source: American Time Use Survey, 2017-2018.