

# Gender Disparities in Increased Parenting Time During the COVID-19 Pandemic: A Research Note

Jennifer March Augustine and Kate Prickett

**ABSTRACT** Public health measures aimed at curbing the transmission of COVID-19 increased parenting responsibilities during the early stages of the pandemic. This research note examines time-use data from the American Time Use Surveys to provide several fresh insights as to how mothers took on a disproportionate share of this responsibility compared to fathers during this period. First, the gender gap in total parenting time narrowed by 18%. Meanwhile, the gender disparity in time in educational activities increased by 113% and was not explained by changes in mothers' labor force participation. Mothers also took on 20% more time in secondary caregiving compared to fathers. Estimates among working parents indicated that the amount of time in which mothers coupled paid work with caregiving increased by 346% compared to fathers. These results highlight how fathers marginally increased their caregiving responsibilities compared to mothers, but not in activities that parents tend to rate as more stressful or intensive, such as supervising children's schooling and multitasking at work. The estimates provide clear evidence of the unequal caregiving burden placed on mothers during the pandemic.

**KEYWORDS** Maternal employment • Parenting • Time-use • Gender inequality • COVID-19

## Introduction

The COVID-19 pandemic has had a profound impact on the lives of American families, but particularly mothers. For example, mothers were three times as likely to leave the labor market as fathers (Heggeness and Fields 2020) following school and childcare closures and the transition to remote learning (Barroso and Horowitz 2021; Lofton et al. 2021). This phenomenon suggests that traditional gender norms regarding paid work and caregiving remain powerful (Thébaud et al. 2021). Yet the extent to which they persist vis-à-vis contemporary gender norms—including fathers' desires to spend more time with their children and endorsement of egalitarian parenting (Ishizuka 2019; Townsend 2010)—is unclear. The early stages of the pandemic, in which childcare demands increased but so did parents' labor force exits and proximity to their children (given school and childcare closures and the shift to remote work),

provides an opportunity to compare how mothers' and fathers' caregiving time shifted in relation to their labor force participation and assess the state of gender inequality. We do so by pursuing four aims that draw on pre- and postpandemic time-diary data from the 2019 and 2020 panels of the American Time Use Survey (ATUS).

The first aim is to assess whether mothers' parenting time during the pandemic increased to a greater extent than that of fathers. Studies asking participants to describe caregiving changes since the pandemic found that similar shares of mothers and fathers reported increasing their caregiving responsibilities (Dunatchik et al. 2021) and that among couples, childcare time became more equal (Carlson et al. 2021; Sevilla and Smith 2020). These studies, however, did not use time-diary data—the gold standard for measures of time (Cornwell et al. 2019; Robinson et al. 2011)—or include multiple panels of data. Recent estimates from ATUS show substantial gender disparities in parenting time during the pandemic (Bauer et al. 2021), but they are not compared to prepandemic estimates. Thus, it remains unclear whether and to what extent parents experienced an unequal *increase* in parenting time.

Second, we examine whether mothers took on an unequal increase in teaching and other intensive developmental activities during the pandemic, which result in more stress and fatigue than time in less intensive activities (e.g., monitoring, television watching), which fathers are more likely to engage in (Musick et al. 2016; Negraia et al. 2018; Zannella and De Rose 2020). Although Dunatchik and colleagues (2021) found that 73% of mothers reported spending more time on educational activities than other household members, they did not estimate the magnitude of this difference or the extent to which it increased since the start of the pandemic. Thus, this aim clarifies whether existing studies suggesting a shared division of parenting mask an unequal division between more or less intensive developmental activities.

Third, because multitasking is stressful for parents (Cornwell 2013), we examine whether mothers took on a larger share of secondary parenting time (a child was present but not the activity's focus) compared to fathers and, in the case of working mothers, the extent to which they were more likely to couple work with caregiving (Lyttelton et al. 2021). Lastly, we examine the extent to which gendered patterns in parenting time during the pandemic were due to mothers' greater reductions in labor force participation compared to fathers (Collins et al. 2021) or to a greater childcare burden. As Carlson and colleagues (2021) argued, mothers and fathers increased their caregiving during the pandemic as the result of changes in their work (e.g., reduced hours, unemployment). Yet Dunatchik and colleagues (2021) observed that for couples in which both parents worked from home, gender differences in caregiving time remained large. Thus, women may have also experienced an upward shift in caregiving time, beyond employment rate changes.

## Methods

### Data and Sample

ATUS is a nationally representative, cross-sectional survey of U.S. residents aged 15 years or older sponsored by the U.S. Bureau of Labor Statistics. The sampling frame is based on a random subset of households participating in

the Current Population Survey, which provides respondents' sociodemographic data. Surveys collected two to five months later for ATUS provide data on time-varying factors (e.g., employment) and time-diary information. Time-diary data are collected over a 24-hour diary using a lexicon that captures the type of activity conducted, its duration, and who was present. We drew on the 2019 and 2020 survey years to capture the year prior to and the first year of the pandemic. We included only the months of May–December in both years, as the 2020 data collection was suspended from March 19 to May 11. We used sample weight TU20FWGT created by the Bureau of Labor Statistics to account for the survey design and provide comparable estimates between 2020 and 2019, and the 2020 replicate weights (TU20FWGT001–TU20FWGT160) and Stata commands *svyset* and *sdrweight* to derive more precise standard errors.

Our analytic sample pools data from two subsamples of women and men who lived with an “own” biological or adoptive child younger than 13 and were interviewed on a weekday:<sup>1</sup> those interviewed between May 11th and December 31st of 2019 (381 women and 313 men) and those interviewed May 11th through December 31st of 2020 (449 women and 322 men) ( $N = 1,465$ ).<sup>2</sup> Results provide population-level estimates of changes in parenting time. They cannot capture within-person estimates.

## Variables

### *Dependent Variables*

We examined five measures of parenting time, all measured in total minutes during a 24-hour period.<sup>3</sup> *Any time with children* is based on parents' reports that their child was “with them” or “accompanied them” during an activity.<sup>4</sup> This measure captures child-focused activities such as bathing or dressing and general caregiving activities such as shared meals. It does not, however, assess the extent to which parents and children are engaged during these activities. *Developmental time* includes activities that reflect education-related time (e.g., helping with school) and activities linked to cognitive development, such as reading to or playing with children. *Secondary care* represents time in which the primary activity is not done for or with the child, but the respondent is responsible for the child, such as time spent working for pay or doing housework while a child is playing (Stewart and Allard 2015). *Secondary care while working* captures time when employed parents reported working and performing secondary care, as does *percentage of work time in secondary care* (time in “secondary care while working” divided by total work minutes).

<sup>1</sup> We focus on weekdays given our interest in gendered patterns of parenting time on days when parents are most likely to be working and children are typically in school or childcare.

<sup>2</sup> Eighteen respondents were dropped owing to missingness on covariates.

<sup>3</sup> See Table A1 in the online appendix for more detailed information on activities included within these measures.

<sup>4</sup> Who was present was not assessed for sleeping, grooming, and personal activities.

## Independent Variables

A binary year marker indicates whether the respondent completed the time diary in 2020 (vs. 2019). *Employment status* is measured by four dummy variables indicating whether the parent worked full-time (35 hours or more per week), worked part-time (less than 35 hours), was not employed or looking for work (i.e., “not working”), or was unemployed and looking for work.<sup>5</sup>

## Covariates

Covariates include number and ages of children; partnership status; student status; family income; respondents’ education, age, race/ethnicity, and nativity; whether the family resided in a metropolitan area; geographic region; and time-diary factors (month, holiday)<sup>6</sup> (for an overview of these factors, see Monna and Gauthier 2008).

## Analysis Plan

For Aims 1–3, we used ordinary least-squares (OLS) regression to predict parenting time (Stewart 2013), stratifying the models by gender. Model 1 included the full set of covariates, except work status. Model 2 added work status to assess the role of work in the association between year and parenting time. Model 3 added interactions between year and work status to examine whether the pandemic had a greater impact on parenting time of working versus nonworking parents. Auxiliary analyses pooled the mother and father samples and estimated interactions between parent gender and survey wave. *Post-hoc* Wald tests assessed whether changes in time for mothers and fathers were significantly different. For Aim 4, we performed Kitagawa–Blinder–Oaxaca decompositions to examine how much the changes in parenting time from 2019 to 2020 observed in Aims 1–3 were due to changes in work status (Kitagawa 1965). We employed the Neumark-averaged approach, which averaged coefficients and means from the pooled sample, the *oaxaca* Stata command (Jann 2008), and recommended procedures of normalizing dummy variable effects (Yun 2005).

## Results

### Bivariate Findings

Compared with 2019, in 2020, mothers spent 33 more minutes in any time with children, 32 more minutes in developmental time, and 106 more minutes in secondary caregiving time (Table 1). Fathers did not increase their engagement in developmental time between 2019 and 2020, but they did spend 39 more minutes in total care and 67 more minutes in secondary care. Sample characteristics did not generally vary between years, although mothers’ full-time labor force participation declined by 10 percentage points.

<sup>5</sup> The small sample of those unemployed does not allow for meaningful inferences about this group.

<sup>6</sup> See Table A2 in the online appendix for details on covariate coding.

**Table 1** Means and frequencies of independent variables and selected covariates

	Mothers		Fathers	
	2019	2020	2019	2020
Parenting Time Outcomes (means)				
Any caregiving time (minutes)	378.8 (231.3)	411.9* (249.8)	216.5 (191.2)	255.0* (227.7)
Developmental time (minutes)	41.6 (73.7)	73.3* (112.1)	29.7 (53.0)	36.1 (69.9)
Secondary care time (minutes)	335.5 (231.3)	441.0* (263.5)	207.7 (210.1)	274.5* (273.8)
Covariates				
Work status				
Full-time	53	43*	88	89
Part-time	19	18	6	3
Unemployed	3	5	2	4
Not working	26	35*	4	4
Student	5	6	3	3
Education				
High school diploma/GED or less	33	35	37	35
Some college/associate's degree	22	24	21	23
College degree	45	42	42	43
Mean age	36.6 (7.5)	36.4 (8.0)	39.0 (8.3)	39.3 (7.5)
Race/ethnicity				
White, non-Hispanic	57	53	63	54*
Black, non-Hispanic	13	12	10	14
Hispanic White	19	25	17	18
Asian	7	5	7	9
Other race/ethnicity	4	5	3	4
Foreign-born	28	29	28	32
Mean family income (range, 1–16)	12.1 (3.9)	12.0 (3.9)	12.3 (3.8)	13.3 (2.9)
Partnership status				
Married	74	70	84	88
Cohabiting	6	7	9	4
Single	19	24	8	8
Mean number of children	2.1 (1.0)	2.0 (0.9)	2.0 (0.9)	2.0 (0.9)
Child aged 0–2 years	32	33	33	26
Child aged 3–5 years	37	34	35	36
Child aged 6–12 years	69	72	65	74*
Total <i>n</i>	381	449	313	322

*Notes:* Standard deviations are shown in parentheses. Several covariates are not included in the table: living in a metropolitan area, geographic region, time-diary month, and whether time diary was a holiday.

\*Indicates that the mean or frequency is statistically different from the 2019 value at  $p < .05$  based on a chi-square or  $t$  test.

## Changes in Parenting Time

The results in Model 1 of [Table 2](#) (also see [Figure 1](#)) address the first two aims of this study: whether, during the pandemic, mothers' total parenting time and time in developmental activities increased to a larger extent than that of fathers. Mothers spent 40 more minutes per day with children in 2020 than in 2019 ( $p < .01$ ).<sup>7</sup> This difference became insignificant once work status measures were added (Model 2). There was no variation by mothers' work status, evidenced by the insignificant year  $\times$  work interactions (Model 3). Mothers spent 31 more minutes in developmental activities in 2020 than in 2019 ( $p < .001$ ). This difference attenuated slightly with the inclusion of work status (Model 2) but remained significant. Model 3 provided no evidence that this pattern differed by work status. Mothers spent 118 more minutes providing secondary care in 2020 than in 2019 (Model 1). This estimate remained significant in Model 2 but decreased slightly. Interactions between year and work status suggested that this increase was larger for mothers who worked full-time compared with those working part-time ( $B = -114$ ;  $p < .05$ ) or not working ( $B = -94$ ;  $p < .05$ ).

In 2020, fathers spent 51 more minutes per day with children than in 2019 ([Table 3](#)). This number remained significant with the inclusion of work status in Model 2 but declined slightly. There was no evidence of moderation by work status (Model 3). Fathers did not spend statistically more developmental time with children in 2020 than in 2019 (Models 1 and 2), nor did this vary by work status (Model 3). However, they did spend 77 more minutes engaged in secondary care (Model 1).

In response to the third question—whether mothers also took on more secondary caregiving time, particularly among those working—we find that mothers and fathers increased their time in secondary parenting during the pandemic ([Tables 2 and 3](#), Model 1), but the increase was larger for mothers (98 minutes vs. 72 minutes in Model 2, which controlled for work status). This increase was not greater for fathers working full-time compared with fathers in other work statuses, but it was for mothers (see Models 3). Estimates of the number of minutes parents worked while providing secondary care ([Table 4](#))<sup>8</sup> revealed that working mothers spent 97 more minutes in secondary care while working in 2020 than in 2019. The increase for fathers was less than half that, at 46 minutes. Mothers also spent 21% more of their work time simultaneously caring for children in 2020 than in 2019, compared with just 9% more for fathers.

## Impact of the Pandemic on the Parenting Time Gender Gap

[Table 5](#) provides estimated parenting minutes for mothers and fathers in 2019 and 2020 based on Model 2 from [Tables 2, 3](#), and [4](#) (also see [Figure 1](#)). They reveal an 18% decrease in the gender gap in any time with children (from 175 to 144

<sup>7</sup> Full-model results can be found in Tables A3 and A4 in the online appendix for mothers and fathers, respectively.

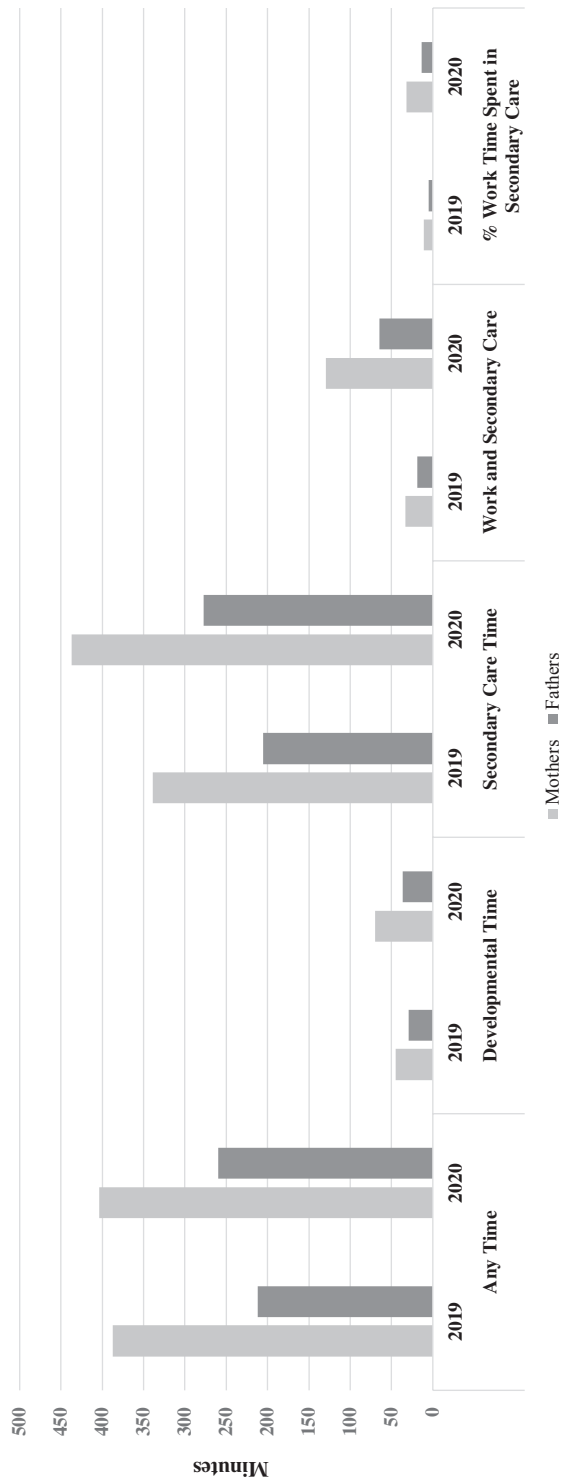
<sup>8</sup> Full-model results can be found in Table A5 in the online appendix.

Table 2 OLS models predicting mothers' parenting time (*n* = 830)

	Any Time With Children			Developmental Time			Secondary Care Time		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Year (ref. = 2019) 2020	40.03** (15.25)	16.35 (14.44)	28.09 (20.33)	30.90*** (6.50)	24.60*** (6.51)	20.94* (8.35)	118.38*** (18.38)	98.34*** (17.52)	149.88*** (28.86)
Work Status (ref. = full-time) Part-time		117.88*** (24.96)	129.91*** (33.77)		24.34** (7.67)	20.08* (8.66)		100.21*** (22.95)	153.61*** (31.31)
Unemployed		188.57*** (38.39)	227.89*** (66.47)		72.59* (32.02)	107.16 (69.36)		111.01* (44.06)	134.73*** (40.21)
Not working		211.48*** (20.79)	218.74*** (26.33)		50.11*** (10.03)	43.64*** (11.31)		192.70*** (22.63)	238.64*** (25.74)
Work Status × Year (ref. = full-time × 2019) Part-time × 2020									
Unemployed × 2020									
Not working × 2020									
Constant	458.74*** (84.37)	325.27*** (74.72)	320.19*** (75.86)	110.65** (36.54)	78.87* (35.53)	77.08* (33.72)	304.83*** (83.78)	187.90* (75.87)	176.06* (76.22)
R <sup>2</sup>	.21	.33	.33	.11	.16	.16	.18	.27	.28

Notes: Standard errors are shown in parentheses. Controls included education, student status, age, race/ethnicity, nativity, family income, partnership status, number and age of children in the household, living in a metropolitan area, geographic region, time-diary month, and whether time diary was a holiday.

\**p* < .05; \*\**p* < .01; \*\*\**p* < .001



**Fig. 1** Predicted caregiving minutes for mothers and fathers in 2019 and 2020. Predicted estimates are based on Model 2 from [Tables 2](#) (mothers) and [3](#) (fathers). Estimates in the last two panels are from models in [Table 4](#).



Table 3 OLS models predicting fathers' parenting time (*n* = 635)

	Any Time With Children			Developmental Time			Secondary Care Time		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Year (ref. = 2019) 2020	50.86* (19.94)	47.18* (19.49)	54.55** (21.12)	6.39 (4.91)	6.81 (4.85)	7.04 (4.78)	77.36*** (22.04)	72.01** (22.23)	74.32*** (23.71)
Work Status (ref. = full-time)									
Part-time		109.33** (36.46)	153.66*** (42.98)		38.96** (14.81)	39.24* (18.78)		28.06 (41.44)	10.88 (45.44)
Unemployed		251.76*** (51.49)	301.14*** (62.55)		23.43 (22.16)	19.86 (47.54)		252.88*** (61.95)	259.99*** (64.56)
Not working		219.14*** (53.27)	227.87** (77.61)		33.52* (16.62)	36.86* (18.40)		259.88*** (51.76)	301.84*** (63.91)
Work Status × Year (ref. = full-time × 2019)									
Part-time × 2020			-120.12† (68.14)			-1.10 (25.68)			47.00 (84.59)
Unemployed × 2020			-72.98 (99.17)			5.11 (49.67)			-13.23 (112.21)
Not working × 2020			-13.06 (95.24)			-7.35 (31.68)			-93.59 (96.19)
Constant	211.11* (90.26)	167.35* (84.81)	159.47† (85.49)	64.85** (22.53)	58.40** (22.33)	58.51** (22.40)	185.09 (129.45)	143.81 (119.06)	143.51 (120.57)
R <sup>2</sup>	.11	.18	.18	.13	.16	.16	.14	.20	.20

Notes: Standard errors are shown in parentheses. Controls included education, student status, age, race/ethnicity, nativity, family income, partnership status, number and age of children in the household, living in a metropolitan area, geographic region, time-diary month, and whether time diary was a holiday.

†*p* < .10; \**p* < .05; \*\**p* < .01; \*\*\**p* < .001

**Table 4** OLS models predicting parenting time among working parents on workdays

	Work Minutes Doing Secondary Care		% of Work Minutes Doing Secondary Care	
	Mothers ( <i>n</i> = 455)	Fathers ( <i>n</i> = 519)	Mothers ( <i>n</i> = 455)	Fathers ( <i>n</i> = 519)
Year (ref. = 2019)				
2020	96.70*** (16.47)	45.76*** (10.82)	21.08*** (4.00)	8.82*** (2.25)
Work Status (ref. = full-time)				
Part-time	-19.52 (17.95)	-8.05 (20.37)	10.68* (4.87)	3.93 (6.85)
Constant	-46.39 (75.94)	-29.77 (60.53)	-0.12 (17.59)	-5.53 (11.63)
<i>R</i> <sup>2</sup>	.18	.16	.17	.19

*Notes:* Standard errors are shown in parentheses. Controls included education, student status, age, race/ethnicity, nativity, family income, partnership status, number and age of children in the household, living in a metropolitan area, geographic region, time-diary month, and whether time diary was a holiday.

\**p* < .05; \*\*\**p* < .001

minutes), but a 113% increase in the gender gap in developmental time (from 16 to 34 minutes). They also show a 20% increase in the gender gap in secondary care time, from 134 to 160 minutes. The largest increases in the gender time gap were among working parents, for whom the gender gap in secondary caregiving grew by 346%. The gap in the proportion of all work minutes while providing secondary care grew by 195%. Each of these gender gaps was statistically significant at the minimum probability level of .05.<sup>9</sup>

**Assessing Compositional Changes in Labor Force on Parenting Time**

To address the fourth aim about the extent to which the foregoing patterns were explained by mothers’ versus fathers’ higher rates of unemployment and workforce exits, we performed decomposition analyses (Table 6 and Figure 2). For developmental time and secondary care time, the majority of the increase for both mothers and fathers was unexplained by changes in compositional factors (i.e., population characteristics), meaning they were likely due to behavioral changes (or other variables not in the model). For any time with children, 51% of the increase in parenting time between 2019 and 2020 for mothers was due to shifts in the sample composition. Shifts from full-time work to unemployed or not in the labor force accounted for all the explained increase. None of fathers’ increase in any time with children was explained by compositional changes in the model variables.

<sup>9</sup> Based on *post-hoc* Wald tests on pooled and fully-gender-interacted models.

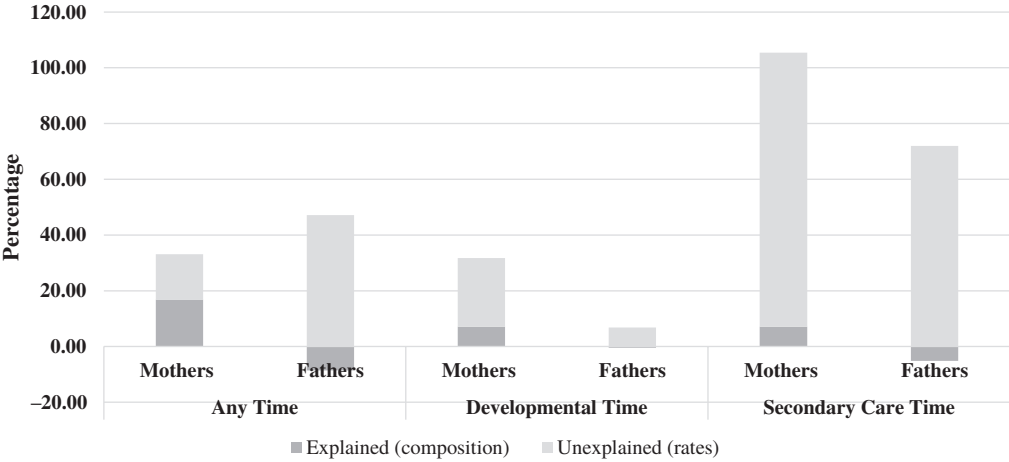
Table 5 Predicted parenting time (in minutes) by year and parent gender, and estimated changes in parenting time and gender parenting time gap

	Any Time With Children		Developmental Time		Secondary Care Time		Work and Secondary Care Time		% Work Time in Secondary Care	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Mothers	387.2 (367.3–407.2)	403.6 (381.8–425.4)	45.2 (37.5–53.0)	69.8 (59.0–75.7)	339.1 (318.4–359.8)	437.4 (411.3–463.6)	33.3 (18.4–48.3)	129.2 (102.1–156.2)	10.8 (6.9–14.8)	31.6 (24.4–37.9)
Fathers	212.2 (192.0–232.5)	259.4 (226.7–292.2)	29.5 (23.5–35.5)	36.3 (28.6–44.0)	205.1 (182.7–227.6)	277.1 (242.9–311.4)	18.8 (8.9–28.6)	64.6 (47.2–82.0)	4.7 (2.6–6.9)	13.6 (10.1–17.1)
Gender Difference	175.0	144.2	15.7	33.5	134.0	160.3	14.5	64.6	6.1	18.0
% Change in the Gender Difference	–17.6		+113.4		+19.6		+345.5		+195.1	

Notes: Predicted estimates are based on Model 2 from Tables 2 (mothers) and 3 (fathers). Estimates for the last two columns are based on models from Table 4. 95% confidence intervals are shown in parentheses. *Post-hoc* Wald tests determined that all gender differences within and between survey waves were statistically significant at  $p < .05$ .

**Table 6** Explained and unexplained change in parenting time between 2019 and 2020 (Kitagawa–Blinder–Oaxaca decomposition, Neumark pooled approach)

	Mothers ( <i>n</i> = 830)			Fathers ( <i>n</i> = 635)		
	Any Time With Children	Development Time	Secondary Care Time	Any Time With Children	Development Time	Secondary Care Time
Gross Change (minutes)	33.1	31.7	105.5	38.5	6.3	66.8
Explained (composition; minutes)	16.8	7.1	7.1	-8.6	-0.5	-5.2
% of Gross Change	50.6	22.4	6.8	-22.4	-7.6	-7.7
Unexplained (rates; minutes)	16.4	24.6	98.3	47.2	6.8	72.0
% of Gross Change	49.4	77.6	93.2	122.4	107.6	107.7
Explained (composition) Total	16.8	7.1	7.1	-8.6	-0.5	-5.2
Work status total	21.9	5.9	18.6	1.0	-0.8	3.0
Full-time	13.2	3.8	10.3	-1.8	-0.3	-1.7
Part-time	0.1	0.1	0.0	1.0	-0.4	3.0
Unemployed	7.2	1.2	8.0	-0.4	-0.1	-0.7
Not working	1.4	0.9	0.2	2.3	0.0	2.5
All other covariates	-5.1	1.2	-11.5	-9.6	0.3	-8.2
Unexplained (rates) Total	16.4	24.6	98.3	47.2	6.8	72.0
Work status total	1.2	9.1	3.0	22.5	6.2	-24.3
Full-time	4.3	2.4	22.3	23.5	6.7	-25.6
Part-time	-0.4	2.1	-8.8	-2.6	-0.2	3.6
Unemployed	-2.9	5.8	-11.9	1.4	-0.2	-3.4
Not working	0.2	-1.1	1.4	0.2	-0.1	1.1
All other covariates	15.2	15.5	95.3	24.7	0.6	96.3
Constant	-111.1	42.8	-98.7	21.1	-3.6	-42.3



**Fig. 2** Percentage of change in parenting time between 2019 and 2020 explained and unexplained by changes in the composition of the sample. Estimates are from results of the Kitagawa–Blinder–Oaxaca decomposition analyses presented in [Table 6](#).

## Discussion

The COVID-19 pandemic required parents to devote more time to caregiving. Yet it is unclear whether, to what extent, and why (i.e., women’s greater workforce exits compared to men’s, or gender norms that push women to take on a larger parenting burden beyond changes in work) mothers experienced a disproportionate increase in caregiving responsibilities compared to fathers. Drawing on the 2020 and 2019 waves of the ATUS, this research note addressed these questions.

First, we found that mothers increased their time in caregiving, and that a large proportion of this increase (51%) was explained by their reduced labor force participation. Second, fathers maintained their rates of labor force participation while also increasing their parenting time, resulting in a modest narrowing (18%) of the parenting time gender gap. This finding adjudicates among prior studies by suggesting that the caregiving division of labor between parents grew more equal during the pandemic (as suggested by Carlson et al. 2021 and Sevilla and Smith 2020), but only slightly.

Our findings also highlight the tension between traditional and more contemporary gender norms, in which fathers are open to assuming more caregiving responsibilities but not primary responsibility for children, which necessitated greater work exits among women, or women combining work and caregiving during the pandemic. Specifically, not only did mothers take on a 20% larger increase in secondary parenting than fathers, but this increase was greatest among mothers who were working—who increased their time working while caregiving by 96 minutes per day (vs. 46 minutes among fathers).

Persistent gender inequalities are also illuminated by the finding that mothers shifted more of their parenting time into developmental activities, whereas fathers did not significantly increase time in these activities. This increased gender time gap, which grew by 113%, was largely unexplained by changes in mothers’ work time. Given how fathers spend more time in play than mothers, this shift was likely driven

by increases in teaching activities, which parents rate among the less enjoyable and more stressful parenting activities (Musick et al. 2016). Fathers' increase in caregiving was, therefore, likely devoted to more leisure activities, such as shared television watching. This finding reveals an important source of gender inequality regarding intensive developmental parenting activities—including in the context of full-time work—that is obscured when asking broadly about caregiving responsibilities.

Future research should further explore these trends by examining sources of variation beyond parents' work status, such as education, race and ethnicity, occupational sector, and marital status. Research should also consider other aspects of parents' work that could be related to differences in parenting time—including reductions in work hours, shifts to remote work, and work schedules. Lastly, future studies should examine whether these patterns endured after the early months of the pandemic. Our results provide a valuable baseline for such investigations and novel insights for future work that aims to critically examine mothers' continued unequal parenting burdens. ■

## References

- Barroso, A., & Horowitz, J. M. (2021, March 17). *The pandemic has highlighted many challenges for mothers, but they aren't necessarily new*. Pew Research Center. Retrieved from <https://www.pewresearch.org/fact-tank/2021/03/17/the-pandemic-has-highlighted-many-challenges-for-mothers-but-they-arent-necessarily-new/>
- Bauer, L., Estep, S., & Yee, W. (2021, July 22). Time waited for no mom in 2020. *Hamilton Project, Brookings*. Retrieved from [https://www.hamiltonproject.org/blog/mothers\\_time\\_use\\_update](https://www.hamiltonproject.org/blog/mothers_time_use_update)
- Carlson, D. L., Petts, R. J., & Pepin, J. R. (2021). Changes in parents' domestic labor during the COVID-19 pandemic. *Sociological Inquiry*. Advance online publication. <https://doi.org/10.1111/soin.12459>
- Collins, C., Landivar, L. C., Ruppanner, L., & Scarborough, W. J. (2021). COVID-19 and the gender gap in work hours. *Gender, Work & Organization*, 28(S1), 101–112.
- Cornwell, B. (2013). Switching dynamics and the stress process. *Social Psychology Quarterly*, 76, 99–124.
- Cornwell, B., Gershuny, J., & Sullivan, O. (2019). The social structure of time: Emerging trends and new directions. *Annual Review of Sociology*, 45, 301–320.
- Dunatchik, A., Gerson, K., Glass, J., Jacobs, J., & Stritzel, H. (2021). Gender, parenting, and the rise of remote work during the pandemic: Implications for domestic inequality in the United States. *Gender & Society*, 35, 194–205.
- Heggeness, M. L., & Fields, J. M. (2020, August 18). *Working moms bear brunt of home schooling while working during COVID-19*. U.S. Census Bureau. Retrieved from <https://www.census.gov/library/stories/2020/08/parents-juggle-work-and-child-care-during-pandemic.html>
- Ishizuka, P. (2019). Social class, gender, and contemporary parenting standards in the United States: Evidence from a national survey experiment. *Social Forces*, 98, 31–58.
- Jann, B. (2008). The Blinder-Oaxaca decomposition for linear regression models. *Stata Journal*, 8, 453–479.
- Kitagawa, E. M. (1965). Components of a difference between two rates. *Journal of the American Statistical Association*, 50, 1168–1194.
- Lofton, O., Petrosky-Nadeau, N., & Seitelman, L. (2021). *Parents in a pandemic labor market* (Working Paper No. 2021-04). San Francisco, CA: Federal Reserve Bank of San Francisco. Retrieved from <https://doi.org/10.24148/wp2021-04>
- Lyttelton, T., Zang, E., & Musick, K. (2021). Gender differences in telecommuting and implications for inequality at home and work. *Journal of Marriage and Family*, 84, 230–249.
- Monna, B., & Gauthier, A. H. (2008). A review of the literature on the social and economic determinants of parental time. *Journal of Family and Economic Issues*, 29, 634–653.
- Musick, K., Meier, A., & Flood, S. (2016). How parents fare: Mothers' and fathers' subjective well-being in time with children. *American Sociological Review*, 81, 1069–1095.

- Negraia, D. V., Augustine, J. M., & Prickett, K. C. (2018). Gender disparities in parenting time across activities, child ages, and educational groups. *Journal of Family Issues*, 39, 3006–3028.
- Robinson, J. P., Martin, S., Glorieux, I., & Minnen, J. (2011). The overestimated workweek revisited. *Monthly Labor Review*, 134(June), 43–53.
- Sevilla, A., & Smith, S. (2020). *Baby steps: The gender division of childcare during the COVID19 pandemic* (Discussion Paper No. 20/723). Bristol, UK: Department of Economics, University of Bristol. Retrieved from [http://www.bristol.ac.uk/efm/media/workingpapers/working\\_papers/pdffiles/dp20723.pdf](http://www.bristol.ac.uk/efm/media/workingpapers/working_papers/pdffiles/dp20723.pdf)
- Stewart, J. (2013). Tobit or not tobit. *Journal of Economic and Social Measurement*, 3, 263–290.
- Stewart, J., & Allard, M. D. (2015). *Secondary childcare in the ATUS: What does it measure?* (IZA Discussion Paper No. 9376). Bonn, Germany: Institute for the Study of Labor. Retrieved from <http://ftp.iza.org/dp9376.pdf>
- Thébaud, S., Kornrich, S., & Ruppanner, L. (2021). Good housekeeping, great expectations: Gender and housework norms. *Sociological Methods & Research*, 50, 1186–1214.
- Townsend, N. W. (2010). *Package deal: Marriage, work, and fatherhood in men's lives*. Philadelphia, PA: Temple University Press.
- Yun, M.-S. (2005). A simple solution to the identification problem in detailed wage decompositions. *Economic Inquiry*, 43, 766–772.
- Zannella, M., & De Rose, A. (2020, August). *Couples' gender differences in subjective wellbeing during parenting time*. Paper presented at the 13th NTA global meeting on Population and the Generational Economy. Retrieved from <https://ntaccounts.org/doc/repository/NTA2020%20Zannella.pdf>

---

Jennifer March Augustine (corresponding author)  
[augustjm@mailbox.sc.edu](mailto:augustjm@mailbox.sc.edu)

Augustine • Department of Sociology, University of South Carolina, Columbia, SC, USA; <https://orcid.org/0000-0003-1446-8723>

Prickett • Wellington School of Business and Government, University of Victoria at Wellington, Wellington, New Zealand; <https://orcid.org/0000-0002-3827-5013>