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Covid-19 She-cession: The Motherhood Penalty And The U.S. Labor Market A Literature Review

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Publication Date

2023-06-16

COVID-19 SHE-CESSION: THE MOTHERHOOD PENALTY AND THE U.S. LABOR MARKET

A LITERATURE REVIEW

By

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Submitted for Graduation with University Honors

June 9th, 2023

University Honors

University of California, Riverside

APPROVED

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ABSTRACT

With the onset of the Covid-19 pandemic in March of 2020, daycares and schools were abruptly forced to shut down leaving parents in the U.S. with the heavy burden of figuring out new childcare arrangements while continuing to work, whether virtually or in-person. This paper reflects on the vast literature available to further explore the supposed "she-cession" scenario that the Covid-19 pandemic fostered, which has impacted women's participation rate in the U.S. labor market, known as the "motherhood penalty". This literature review is composed of numerous academic articles found in databases such as Google Scholar, Wiley Library, UCR Library, and the U.S. Bureau of Labor Statistics. The academic articles have been paired with other readily available data, such as the U.S. Bureau of Labor Statistics and the CPS, (current population survey), to provide visual representation of the information presented. Although there is extensive research on the topic, there are still other angles that should be further investigated as the data becomes available. Overall, women are an asset in the workforce, most notedly with service providing industries (Albanesi and Kim, 2021), and socially held jobs (e.g., teacher, caregiver, nurse); therefore, by understanding this information we may be able to effectively support their full participation in the workforce.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank the University Honors program here at UCR for fostering a community of lifelong learners starting at the Undergraduate level. The program has allowed me the opportunity to explore at depth the many facets of my major. The experience and knowledge gained from this Capstone is something I will carry with me as I move on to future endeavors.

I would like to also thank my faculty mentor, Professor Bree Lang. I am appreciative for her perspective and of her time in providing constructive feedback to this manuscript.

Lastly, I would like to acknowledge my family and friends who supported me throughout the writing process.

Overall, a big thank you to everyone that has supported me!

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INTRODUCTION

The COVID-19 pandemic led to the major decline of economic activities, including the shutdown of "non-essential" jobs, all schools, and most forms of childcare to shut down, causing a shift to remote schooling and work, in response to curtailing the pandemic in its initial stages. While women have come a long way in the last 60-years in terms of their participation in the labor force, many women now face the unequal burden of working while assuming an unequal share of household and childcare responsibilities (Alon, et al. 2020). In the U.S., most women still assume the primary caregiving role in their families, therefore when there is an increase in need for caregiving and household needs women will typically assume that burden unequally to men (Zamarro and Prados, 2020). Furthermore, if we analyze the following disruptions to schools and daycare centers shutting down, and similarly the transition to remote learning, which led to increased childcare needs, many parents, in particular mothers (as they typically assume caregiving roles), are faced with the decision of choosing between their jobs and staying at home to help with childcare (Zamarro and Prados, 2020). Covid-19 presented unprecedented challenges, however the childcare burden brought on by the pandemic significantly impacted working mothers' labor force participation (Krolikowski, Zabek and Coate, 2020). As we explore the pandemic's impact on working women with children, we will also look at the contributing factors that led to their exit from the labor force.

This review aims to explore the concept of the "motherhood penalty" within the context of the pandemic-induced "she-cession" and its implications for women in various aspects of the labor market. This review will take a comprehensive overview approach to the multifaceted situation that is the "motherhood penalty" by examining women-dominated occupations, mothers

in academia, their caretaker role, school closures, and the motherhood penalty. Emphasizing the significance of the motherhood penalty is necessary to foster a supportive labor market that is characterized by equitable opportunities for women who decide to be mothers.

METHODOLOGY

As the topic of the motherhood penalty during Covid-19 has been extensively researched there is data readily available. To that extent this literature review is a composition between published academic papers and utilizes data from government sources such as the CPS, current population survey, the United States Bureau of Labor Statistics, the Federal Reserve, and the U.S. Department of Labor Women's Bureau.

After retrieving a substantial, over sixty, number of academic journal articles, a two-step screening process was conducted. Initially, titles and abstracts were reviewed to exclude irrelevant studies. In the second screening, the full texts of the remaining articles were assessed based on predetermined inclusion and exclusion criteria. Furthermore, throughout the synthesis process, we remained vigilant about potential biases and limitations within the selected studies. As such, these criteria focused on the relevance of the studies to the research question, the quality of the research design, and the availability of empirical data. Data extraction was carried out using a standardized form. Key information, such as author(s), year of publication, research objectives, methodology, and findings, were extracted from each selected study. This information was organized and synthesized to identify common themes and patterns across the literature. The findings from the selected studies were analyzed using a thematic synthesis approach. Key themes and sub-themes were identified, and the relevant findings from the literature were synthesized to address the research questions and objectives of this review.

In order to analyze the relationships between Covid-19, the motherhood penalty and occupational importance regarding labor force participation this review takes a look at other variables for comparison. The data provided by governmental sources, (e.g., CPS, BLS, FR), is

specific to the United States before being categorized. Examples of categories of separation are as follows: gender, mother, non-mother, occupation, age, and marital status. Furthermore, the BLS' Beta Labs accounts for these variables and is able to generate the visual charts and graphs that will be used as figures below.

With the data being supplied by U.S. government sources, as well as academic sources, such as google scholar, Wiley online library, Research Gate, and Social Science Research Network, a higher level of informational accuracy can be expected. Each source was selected based on its relevance to the specific topic of each section in the discussion:

- I. Women-Dominated Occupations
- II. Mothers in Academia
- III. The Caretaker Role
- IV. School Closures
- V. Motherhood Penalty

Overall, the methodology employed in this literature review aimed to ensure a systematic and comprehensive approach to identify, assess, and synthesize the available literature. By adapting this angle to the methodology, this review intends to provide an insightful analysis and contribute to the existing knowledge on the research topic

DISCUSSION

Women-Dominated Occupations

During the COVID-19 pandemic there has been a concerning trend of women and mothers being disproportionately affected by job losses, even in occupations traditionally dominated by women. It is noteworthy that despite being part of occupations predominantly populated by women, these individuals do not form a homogenous group. They exhibit variations in educational backgrounds, income levels, marital statuses, and other factors. In spite of their variations, they all encountered the motherhood penalty during the pandemic, highlighting the pervasive nature of this phenomenon and shedding light on the existing gender inequalities and vulnerabilities that women face in the workforce.

Figure 1: Representation of Occupations Employing the Largest Number of Women, 2021 Survey

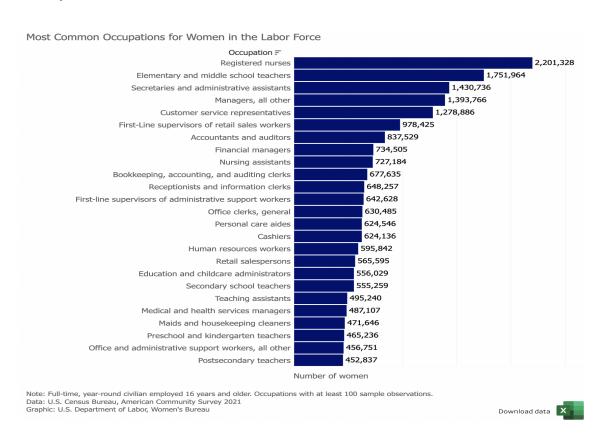
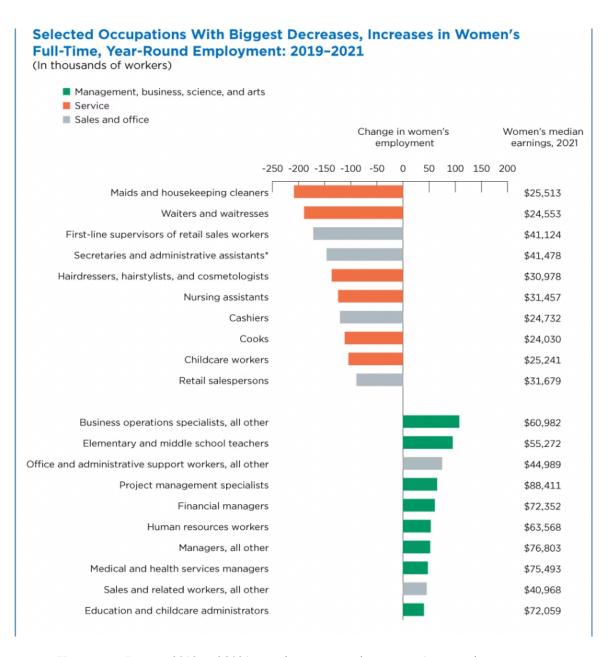


Figure 1 is a representation of the occupations that employ the largest number of working mothers, from the 2021 American Community Survey. As shown in the chart, women work most commonly in socially held occupations, with nursing and teaching being the foremost common occupations.

This trend of job losses can be mainly seen in industries hit hardest by the pandemic, such as hospitality, retail, and services, which employ a significant number of women. In a working paper by Titan Alon, Matthias Doepke, Jane Olmstead-Rumsey and Michele Tertilt, the researchers suggest that the presence of preexisting ingrained gender inequalities set the stage for disparate effects of the COVID-19 pandemic on the economic and labor market statuses of women and men. While previous recessions have typically affected men's employment more severely than women's (Alon et al., 2020), the economic repercussions of the pandemic have predominantly impacted the service sectors that require close personal contact (e.g., restaurants, retail, hospitality, travel) (Kochhar & Barosso, 2020). Given that women constitute a majority of the workforce in these sectors, they have experienced and continue to face a disproportionate burden of employment losses attributable to the pandemic (Dias et al., 2020; U.S. Bureau of Labor Statistics, 2020). This differs from past economic downturns, which commonly tended to impact male-dominated sectors where men are the larger portion of the demographic in cyclical industries such as construction, manufacturing, trade, transportation, and utilities (Karageorge, 2020).

Women tend to dominate service providing and social occupations, such as retail or waitressing, teaching and nursing, however what differentiates the retail or waitress worker from the latter; income and educational background level (Baylis et al., 2020).

Figure 2: Census Bureau Survey, Selected Women's Occupations, 2019-2021



Source: U.S. Census Bureau, 2019 and 2021 American Community Survey, 1-year estimates.

As seen in Figure 2, women in the service providing occupations that require less education, such as retail workers and waitresses, suffered the most in terms of employment loss during Covid-19, as well as had noticeably smaller median earnings than women in other social like occupations, (e.g., nursing, teaching, etc.).

Unlike women in service providing occupations, some occupations allowed for a work from home setting during the pandemic. For example, teachers were able to transition to a virtual work from home setting. While this appears to be beneficial, focusing on teachers that are mothers of elementary aged children, we will analyze some of the key factors that made this transition even more burdensome for mothers. With the transition of working from home and virtual schooling taking place, mothers who are teachers found themselves in a juggling act rather than a balancing one. These mothers saw an increased flexibility, however with that came a blurring of lines in that not only were they required to do their job from home, however they also unequally carried the burden of childcare, teaching and helping their own children, and maintaining household chores, when compared to men. Similarly, Jerry Jacobs, a sociology professor in Penn State's School of Arts & Sciences, states "It turns out that when the mother is working remotely and her partner isn't, she ends up taking on a ton more responsibilities," whereas, "When a father is working remotely and his partner isn't, somehow, he doesn't take on as much extra work. This seems to be a deeply gendered issue".

While women overrepresent the service sector occupations that entail close interpersonal contact (e.g., service jobs), they are also overrepresented (in comparison to men) in essential occupations that again necessitate significant interpersonal contact, such as healthcare and

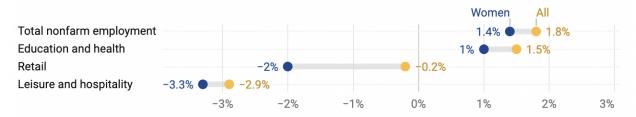
nursing (Avdiu & Nayyar, 2020). Despite the necessity of these essential jobs, they are undervalued and poorly compensated, with limited access to benefits such as healthcare insurance or paid sick leave (Avdiu & Nayyar, 2020; Kantamneni, 2020). Women's disproportionate representation in essential occupations involving close interpersonal contact exposes them to heightened risks during the COVID-19 pandemic. Given the substantial degree of face-to-face interactions on the job and the highly transmissible nature of the coronavirus, some nurses and healthcare workers have found themselves forced to choose between safeguarding their own and their family's health against the need to earn a livelihood to make ends meet (Kantamneni, 2020).

Although we are now in a post-pandemic world the recovery rate for women and mothers in particular has lagged. As stated by the Center for American Progress, "A massive gender gap exists in the share of women and men who are either not working or working part time because of childcare or family reasons. Regardless of age or parental status, women were a staggering five to eight times more likely to experience a caregiving impact on their employment in 2022".

Figure 3: Recovery Lag in Women's Employment, 2020 to 2023

Women's employment recovery lags even in women-dominated industries

Percentage change in employment, by sector, from February 2020 to January 2023



Source: Authors' calculations are based on U.S. Bureau of Labor Statistics, "Series Report: Series CES000000001/CES0000000010, CES4200000001/CES4200000010, CES6500000001/CES6500000010, CES7000000001/CES7000000010," available at https://data.bls.gov/cgi-bin/srgate (last accessed February 2023).

Chart: Center for American Progress

Source: Center for American Progress, 2023

It is crucial to continue identifying, acknowledging and addressing the specific challenges faced by women and mothers during the pandemic is vital to ensuring their economic recovery, promoting gender equality, and building a more resilient and inclusive workforce.

Mothers in Academia

Mothers and women in academia have long faced challenges and barriers; a key issue often being the motherhood penalty. As the motherhood penalty is an established issue in academia, it is worth looking into its effect when combined with the Covid-19 pandemic.

The inequities mothers in academia face are especially interesting because unlike women in service providing occupations, here these women are all highly educated, more likely to have decent and stable income avenues, and during the pandemic had the opportunity to work from home, yet they still faced gender bias and an exacerbated motherhood penalty. The motherhood penalty is particularly evident in academia even prior to the pandemic, where research productivity, grant funding, and publishing are key factors for career advancement (Krapf et al., 2017; Lutter & Schröder, 2020). Balancing the demands of motherhood with the rigorous expectations of an academic career can be extremely challenging. Moreover, research findings indicate a correlation between the number of children and a decline in research productivity. According to a study conducted by Krapf et al. in 2017, female academics with two or three children, on average, experience a loss of approximately 2.5 to 4 years in terms of research output by the time their children reach adolescence, in comparison to academics without children. Furthermore, mother academics may face difficulties in a highly competitive academic environment, maintaining a consistent publication record, and participating in conferences or

professional development opportunities due to time constraints and the lack of flexible work arrangements (Pinho-Gomes et al., 2020; Vincent-Lamarre et al., 2020).

The COVID-19 pandemic has further exacerbated the challenges faced by mothers in academia. With widespread closures of schools and daycare facilities parents had to juggle remote work and childcare simultaneously. The burden often falls disproportionately on women, as societal expectations and traditional gender roles tend to place a greater responsibility on them for caregiving and household responsibilities (Manzo & Minello, 2020). While the transition to working from home provided flexibility to mothers in academia, that flexibility was overshadowed by the lack of separation between work, childcare, and other needs (CohenMiller et al.,2022).

In a study by Salima Kasymova et al., 2021, Kasymova charted three major themes that are recurrent structural and personal obstacles against mother academics. By identifying these main themes an understanding may come about what is needed to develop effective strategies to relieve the stressors, and support mothers in academia.

Figure 4: Themes and Subthemes of Participants' Responses and Interviews

TABLE 4. Themes and subthemes of participants' responses and interviews

Theme	Subthemes
Inability to meet institutional expectations: Participants described the major challenges they have faced during the COVID-19 pandemic	1. a Decline in research productivity1. b Difficulties adjusting to working and teaching online1. c Insufficient support from institutional administration1. d Changes in service-related obligations
2. Juggling work and family life: Participants described their difficulties with navigating work, housework, caregiving and schooling at home responsibilities during the COVID-19 pandemic	2. a Lack of accessible childcare2. b Mental and physical exhaustion
3. Proposed solutions: Participants proposed solutions to help academics who mother during the COVID-19 pandemic to fulfill their job responsibilities	3. a Acknowledgment3. b Flexibility3. c Childcare and leave policies

Source: Kasymova et al., 2021

For mothers in academia addressing the motherhood penalty heavily requires systemic changes. As common with many workplaces in America, these institutions lack the appropriate policies that promote work-life balance, provide adequate parental leave, offer affordable and accessible childcare options, and establish mentoring and support programs for women in academia (King, Frederickson, 2021). For mothers in academia the motherhood penalty is not a new concept, therefore this can be expected to be a non-self-correcting issue in academia. As such, there is a crucial need for institutions to acknowledge these challenges towards mother academics to foster an environment of inclusivity that allows these women to have the opportunities to thrive in their professions regardless of their decision to become mothers.

The Caretaker Role: A Brief Acknowledgement

To that end, the COVID-19 pandemic did not create, but rather revealed the caregiving crisis in the United States. Prior to the pandemic the caregiving crisis was less visible in the United States due to the differences in lifestyles led by American women. However, the pandemic-induced shocks, including the closure of grade schools and childcare centers, and reduced access to domestic workers, brought women back in time to where the role of caretaking and possibly even homeschooling falls primarily on them. For some women this also meant not only caring for children at home, but also simultaneously working from home as well. As explained by Jill Yavorsky, although women have been increasingly part of the labor force, there is still a gender gap in which women continue to perform a disproportionate share of unpaid domestic labor, in heterosexual households, which the imbalance can be seen further exacerbated when the couple become parents (Yavorsky et al., 2015).

The availability of domestic assistance, such as daycare and in-person schooling, is especially crucial for working mothers' engagement in the labor force due to the gendered workplace stereotypes of American society (Collins, 2019; Ruppanner, 2020). According to research by Boeckmann, Misra, and Budig (2015) and Ruppanner, Moller, and Sayer (2019), the availability of such services has a positive relationship and correlation with mothers' work as they decrease the amount of time that parents, typically mothers, need to be accessible to provide childcare. Similarly, when daycare options are limited or expensive, as well as when in-person school days are cut short, a mother's work capacity suffers, as seen in Figure 5, (Ruppanner et al., 2019).

Figure 5: Correlations between Childcare Cost and Mother Employment Status

Table 2. Correlations between Mean State-Level Employment and Childcare Time and Child and School-Aged Childcare Resources.

Model I	Average Childcare Cost	School Day Length
Average childcare cost	_	524 ^{*o o c}
School day length	−.524 ***	_
Full-time employment (%)	289*	.325*
Part-time employment (%)	.462****	452***
Not in the labor force (%)	.015	064
Mean childcare time	.415***	185

^{*}Correlation is significant at the p < .05 level. ***Correlation is significant at the p < .001 level (two-tailed tests).

Source: Expensive Childcare and Short School Days = Lower Maternal Employment and More Time in Childcare? Evidence from the American Time Use Survey, Ruppanner et al., 2019

However, the availability of domestic supports such as daycares have little to no impact on the labor market outcomes of fathers (Schochet, 2019). As a result, the reduction in domestic assistance has probably increased unemployment rates and decreased the working hours of mothers in comparison to fathers. Overall, the absence of a supportive social safety net for mothers in the United States, along with gendered norms, led mothers to take on a disproportionate share of the pandemic parenting role, "by default" (Calarco et al., 2021).

School Closures

In addition to labor market factors, another primary contributor to the decline in women's employment is having children, which is linked to the gender wage gap due to the reduced development of certain skills during periods of intense childcare and possible absence from work (Juhn and McCue, 2017). This can be seen with the closures of schools and daycares resulting from the pandemic, which in turn made it challenging for parents, particularly mothers, who often provide most of the child caring, to maintain their employment. It is also important to note that even prior to the pandemic the childcare burden was already acting as a barrier to entry and full participation in the labor force for women.

In an effort to curb the growing rates of the Covid-19 pandemic in its initial introduction to the United States many schools and daycare facilities shut their doors, with schools opting to transition to a virtual environment. Since then, there has been extensive research looking into the effects of the school closures on the supply of parent labor. In a recent study, Misty Heggeness utilizes difference-in-difference estimation and monthly panel data from the Current Population Survey (CPS), to evaluate for trends between 2019 and 2020, and to compare labor market attachment, non-work activity, hours worked, earnings and wages of those in areas with early school closures and stay-in-place orders with those in areas with delayed or no pandemic closures. Heggeness finds that working mothers of school-age children had different responses than working fathers: while mothers on average took a full week of leave from work in the initial phase of the pandemic, there was no corresponding effect for fathers, aside from a 0.53 (half hour) decrease per week. Likewise, in the article by Collins et al. (2021), they find that the gender gap in parental labor force participation grew five percentage points, relative to 2019, in states that offered primarily remote elementary instruction in September 2020 but only one percentage point in states that were primarily in-person or hybrid.

Figure 6: OLS Regression

OLS Regressions on "Remote Work due to COVID", "Part-time or Absent due to childcare or family", and "Not in labor force due to family"

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	Remote Work due to COVID	Part-time/ Absent due to childcare/ family	Not in labor force due to childcare/ family	Remote Work due to COVID	Part-time/ Absent due to childcare/ family	Not in labor force due to childcare/ family
		Female			Male	
School closure	0.070***	-0.003	-0.005	0.070***	-0.004**	-0.002
	(0.013)	(0.004)	(0.005)	(0.014)	(0.002)	(0.003)
Presence of school-age	-0.012***	0.026***	0.012***	-0.017***	0.003**	0.004**
children (5-17)	(0.003)	(0.003)	(0.004)	(0.004)	(0.001)	(0.002)
School closure x presence	0.047***	-0.018***	0.017***	0.059***	-0.003	0.005
of school-age children	(0.006)	(0.005)	(0.006)	(800.0)	(0.002)	(0.003)
R-squared	0.304	0.076	0.396	0.317	0.018	0.085

^{***} p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. N=348,278 for females and N=312,703 for males. Columns 1-3 are for females, and columns 4-6 are for males. School closures refer to the share of all schools in each county that had at least 50 percent year-on-year decline in in-person visits.

Source: THE IMPACT OF U.S. SCHOOL CLOSURES ON LABOR MARKET OUTCOMES DURING THE COVID-19 PANDEMIC, (Garcia and Cowen, 2022), National Bureau of Economic Research

From the working paper by Kairon Garcia and Benjamin Cowan, 2022, Figure 6 further highlights the relationship between school closures and the gender gap in parental labor force participation. Looking at the first row, the coefficients for school closure and remote work due to Covid, 0.070, are the same for both females and males, this may indicate that individuals without children are more likely to work from home. Interestingly, looking at row two it seems that individuals with school-aged children, regardless of gender, were significantly less likely to work from home, if schools were opened, when compared to the interaction term effects of row three. Next, looking at column 3, rows two and three, both have a positive coefficient, and have a larger coefficient when compared to their male counterparts in column 6. Thus, it may be an indication of the gender gap in parental labor force.

Overall, it is highly probable that the closure of educational institutions plays a substantial role in illuminating the concentrated decline in female labor force participation observed during the Covid-19 pandemic. This essentially underscores the high sensitivity of female employment to shocks, such as the restrictions on available childcare.

The Motherhood Penalty

The COVID-19 crisis has the potential to bring about some changes that may reduce gender inequality in the long term by changing social norms and expectations that lead towards a more equal division of labor within the home. In 2019, the Survey of Household Economics and Decision making (SHED) found that 20% of mothers cited childcare or family obligations as a reason for not working, compared to only 4% of fathers. A study using the U.S. Current Population Survey found that during the first outbreak of COVID-19, mothers with young children in dual-earner, heterosexual married couples reduced their work hours four to five times more than fathers (Collins et al. 2020). Furthermore, Studies show that most American men and

women desire to share earnings and caregiving responsibilities with their partner, however lack of these policies prevents many from achieving this ideal (Thébaud, S., & Pedulla, D. S., 2022).

American work culture is largely oriented to a gendered division of paid work and unpaid caretaking work (Gornick & Meyers, 2009). In the United States the public policy on paid family leave as stated is "virtually non-existent", (Williams, 2010), paling in comparison to some of the other countries that facilitate maternal employment with paid parental leave and subsidized childcare. According to Brown et al. (2020), a mere 56% of the American workforce qualifies for the 12-week leave entitlement established by the Family and Medical Leave Act (FMLA) of 1993. Notably, a disproportionate number of low-wage workers do not meet the eligibility criteria, as seen in Figure 7. Additionally, the absence of paid leave under the FMLA renders it financially unfeasible for numerous individuals.

Figure 7: Family and Medical Leave Act

56% of employees are eligible for FMLA

44% are ineligible due to: insufficient employment tenure or hours worked only (21%)

worksite size only (15%)

both tenure or hours & worksite size (7%)

Exhibit 1. Employee eligibility and ineligibility for FMLA, by reason for ineligibility

^{*} Extra circle for "both tenure or hours & worksite size" reflects numbers not adding to 100% due to rounding.

Therefore, considering the policies available to women when they become mothers, women tend to alter their work situations accordingly, which may ultimately contribute to a labor market disadvantage and depressed lifetime earnings (Jee et al., 2019)—known as the motherhood penalty.

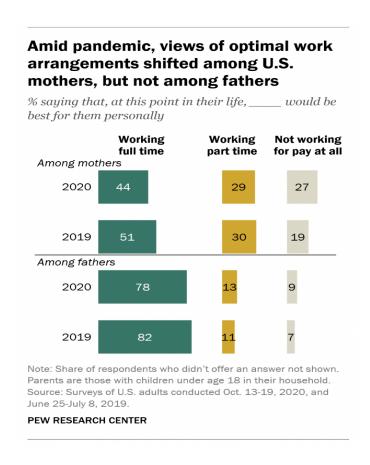
CONCLUSION

Looking Ahead: A Post-Pandemic World

The Covid-19 pandemic has undoubtedly impacted the participation of mothers in the workforce. As the previous literature has suggested, working mothers have faced a variety of challenges such as increased childcare needs, increased caregiving responsibilities, increased financial burdens, school closures, and more that contributed to their exclusion from the workforce.

While Covid impacted the participation of mothers in the workforce, causing a "shecession", many factors ultimately must be considered, such as occupation, job type, child age, access to childcare, caregiving burdens, financial burden, income between a single earner and a dual earning household, and paid family leave. Additionally, for some mothers their priorities may have been shifted as a result of the pandemic, therefore, it is possible that even if provided with supportive family policies they would still prefer to not participate in the labor force. As seen in Figure 8 by the Pew Research Center, the survey found that an increased number of mothers stated that, at the time, the best arrangement for them would be to exit the labor force.

Figure 8: October 2020 Pew Research Center Survey



While this literature review cannot assertively suggest that social policies are necessary to support mothers' participation in the labor force, the literature and data do suggest that there is a disproportionate burden on women that are mothers in the United States, therefore further solutions and policies should be studied to suggest what American society can do to curb this "motherhood penalty".

The overwhelming majority of literature on this topic all have extensively focused on the disproportionate caregiving burden on women, the gender pay gap, and so on, however there are gaps in the research to be acknowledged. Going further it would be interesting to include same sex couples with children, especially same-sex female couples, in comparison to heterosexual two parent households. Similarly, if we were to also look at single fathers, how would they

compare to single mothers? Overall, currently, there is a lack of sufficient data available to further expand on these questions. However, to flesh out the societal and economic implications of the motherhood penalty it would be worth further exploring in the future, if and when the data becomes available.

All in all, this literature review examined the existing body of research on the given topic. Through a comprehensive search strategy and rigorous selection criteria, a range of relevant studies were identified and critically evaluated. The synthesis of findings revealed common themes and patterns, shedding light on key aspects of the topic. The review also identified research gaps and areas for further exploration. By adhering to a robust methodology, this study contributes to the understanding of the topic and provides a foundation for future research endeavors. Overall, the findings of this literature review serve to inform and identify deficiencies in order to guide future studies in the field.

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