The Effect of Lockdowns on the Status of Women in the World

Angelika B. Magno

The Effect of Lockdowns on the Status of Women in the World

DLSU-AKI Working Paper Series 2021-08-067

By: Angelika B. Magno
        De La Salle University

The Effect of Lockdowns on the Status of Women in the World

Angelika B. Magno

June 4, 2021

Abstract

Coronavirus disease (COVID-19) is an infectious respiratory illness that causes moderate to severe symptoms that can be fatal to older people or those with other underlying health concerns. Considered a global pandemic, this disease spreads rapidly across the world, calling for a need for the implementation of lockdowns. This study examines the effects of lockdowns on joblessness among women, controlling for household conditions, namely, perceived household responsibility, hours allotted for household chores, and safety at home. Data for lockdowns were sourced from Google's Community Mobility reports, whereas joblessness among women and household conditions were sourced from Facebook's Survey on Gender Equality at Home. The findings suggest that lockdowns positively and significantly affect joblessness among women and that household conditions (hours allotted for household chores and safety at home) also have the same effect, except for perceived household responsibility. The implications of these results are discussed in detail throughout the study.

Keywords: Lockdowns, joblessness among women, household conditions perceived household responsibility, hours allotted for household chores, safety at home, COVID-19

JEL Classification: C30, D13, I18, J16

According to the World Health Organization (2020a), COVID-19 is an infectious disease that causes people to experience mild to moderate respiratory illness. It can be fatal to older people and those with underlying medical problems (World Health Organization, 2020a). Because COVID-19 spreads rapidly across the world through droplets of saliva or discharge from the nose, a global pandemic was declared. Primarily, it is spread through droplets of saliva or discharge from the nose when an infected person coughs or sneezes (World Health Organization, 2020a. With the risk of having a number of people developing serious illnesses and possibly dying, preventing and slowing down the transmission have been one of the top priorities of countries globally.

One of the attempts to control the spread of COVID-19 was the implementation of lockdowns (Verma et al., 2020). Lockdowns, otherwise known as movement or mobility restrictions, requires people to stay within their residence over a period of time (Mari et al., 2020). As per the World Health Organization (2020b), this can slow COVID-19 transmission by limiting contact between people. Doing so can also grant governments time to detect, isolate, test, and care for all cases by tracing and quarantining all contacts, thus engaging, empowering, and enabling populations to drive the societal response.

On the other hand, in terms of unemployment, the COVID-19 pandemic has shown significant effects on joblessness among women. According to the International Labour Organization and the Organization for Economic Cooperation and Development (2020), when compared to the global financial crisis, the COVID-19 caused more women to lose their jobs than men in most countries in the world. They specified that the pandemic had negatively impacted the employment and the hours worked of women disproportionately. Moreover, it was also observed that the labor participation rate of women substantially declined greater than men. These observations can be traced back to the imposition of lockdowns and their underlying effects on the household conditions.

Lockdowns, in general, "forced families and cohabitants to spend their entire days and weeks in the same physical space" (Mari et al., 2020, p.1). This higher degree of interactions within residences was observed to have caused changes in household gender conditions (Facebook, 2020). Specifically, this is in terms of household and financial decision making, responsibilities in the household and income-generating activities, and feelings of safety and security. Amplified by the imposition of lockdowns, women now have more unpaid care work at home. With schools and child care facilities closed, the burden of having most of your time spent on child care, supervision, and schooling is now mostly carried by women. These, as well as care for family members with disabilities or older people, have been one of the causes of the decline of women's labor force participation rate according to the International Labour Organization and Organization for Economic Cooperation and Development (2020).

Because employment is one measure to assess the status of women (Kawachi et al., 1999), in this study, their status will be defined as the measure of joblessness among women. In this regard, this paper aims to examine the effects of lockdowns on joblessness among women empirically. Controlled variables such as household conditions (divided to perceived household responsibility of women, hours allotted for household chores, and safety at home) will also be included in consideration of their effects on the status of women, as stated by previous literature.

Using linear regression analysis, the results of this study finds that lockdowns have a positive impact on joblessness among women. Moreover, it also infers that household conditions also have a positive effect on joblessness among women with the exception of perceived household responsibility. The details and implications of these results will be discussed in the following chapters. Specifically, chapter 2 discusses the review of related literature, chapter 3 introduces the theoretical framework, and chapters 4, 5, and 6 presents the methodology, results and discussion, and conclusion, respectively.

Review of Related Literature

According to Reichelt et al. (2020), the imposition of lockdowns has great significant effects on employment and all associating factors. Such factors are reductions in working hours and work-from-home arrangements, (Reichelt et al. (2020). Their study stated that the pandemic affected working families profoundly, namely, having to work from home, having fewer working hours, partial pay, and job loss. Furthermore, Reichelt et al. (2020) added pieces of evidence suggesting that women are more severely affected by these developments—aside from immediate negative effects on women's employment, it also causes broader implications for gender inequality. For this paper, below are works of literature that examine factors that affect women's employment.

Effects of Economic Crises on the Joblessness Among Women

With many factors causing the global economy to shrink, the developing world has been inevitably seeing an increase in the number of poor and vulnerable households (Floro et al., 2009). The aforementioned factors primarily include loss of jobs as businesses, factories, and mines close down; insufficient financial resources for social safety nets; and deteriorating financial conditions, especially in developing countries that are in most need of basic services such as health and education.

Economic crises affect not only household incomes, social services, and human development but also the labor market. Floro et al. (2009) stated that having profound effects on women and their opportunities, as well as gender inequality, is inevitable in these situations. Furthermore, according to Floro et al. (2009), without a systematic gender analysis of a global economic crisis, it would be difficult to develop viable solutions and may even further the trend of gender inequality.

This analysis, when done correctly, can help mitigate the effects of an economic crisis on the labor conditions of women. Its significance is well justified, as Floro et al. (2009) concluded in their study that financial and economic crises do, in fact, cause many women to lose their jobs or become underemployed. In addition, their study also deduced that because of the fall in the supply of micro-credit, economic crises

also lead to a decrease in female self-employed workers and an increase in women's amount of unpaid work. Unfortunately, this event also leads to an increase in the number of girls dropping out of school and, due to limited access to health and other support services, a rise in the level of violence against women, which is also a leading cause of unemployment for women.

Effects of Perceived Gender Roles and Stereotypes on the Joblessness Among Women

According to Gonzales et al. (2019), gender stereotypes are hasty generalizations of men's and women's abilities based on typical gender role assignments. These generalizations are often heard by third parties both directly and indirectly. In these people's eyes, men in our society often take leadership roles, having believed to possess greater leaderships qualities, higher aspirations, and commitment to work. On the other hand, women are often seen as homemakers, believing to possess greater communal qualities associated with caring behaviors. According to Gonzales et al. (2019), stereotypes can also be prescriptive, which may be driven by cultural beliefs about what men and women should or should not do, sometimes referring again to women having higher communal values and therefore reinforcing men with patriarchal authority.

"Both descriptive and prescriptive gender stereotypes may influence hiring processes" (Gonzales et al., 2019, par. 7). For example, employers may view women as less productive than similarly qualified male workers because they are expected to be more family-oriented and less committed to paid work. Moreover, mothers are also expected by employers to have higher rates of absenteeism, especially pregnant mothers whose health may affect productivity at work.

Gonzales et al. (2019) examined the extent to which women experience subtle forms of discrimination in the order in which they are selected for further screening and if the applicant's parenthood status and level of qualifications vary in the selection. In general, the study concluded that men are preferred over women as long as the former has equal or less qualifications than the latter. Furthermore, the study observed that among male and female parents, women are given less priority by employers than men. Results also showed that women's disadvantages significantly increase when they are mothers. This result can prove to be a discouraging factor for women to participate in the labor force, which then increases their willingness to remain as a housewife.

Effects of Increased Housework on the Joblessness Among Women

In a study by Stier and Epstein (2000) where the impacts of women's employment on different aspects of household arrangements were studied, it was stated that men with wives that are fully employed engage in more time doing household chores than those with partially employed wives. It was also concluded that women who are both partially and fully employed are more likely to engage in household financial and expenditure responsibilities than their husbands.

This conclusion implicitly indicates that the employment of women and their responsibilities in household chores are negatively related. In other words, it states that because women are prioritizing housework by increasing hours of household chores, they are now less inclined to work, therefore in terms of unemployment, the joblessness among women is said to have a positive relationship with hours allotted for household chores.

Effects of Intimate Partner Violence on the Joblessness Among Women

Despite advocates of abused women fearing women's entry into the workforce fueling domestic violence, a study by Riger and Staggs (2004) stated the opposite. According to Riger and Staggs (2004), employment might increase women's confidence to oppose violence. By raising women's income, their power in the relationship also increases, therefore increasing their ability to leave or reducing the opportunity for violence, as they would not be around their partners that often now that they have work.

With the possibility of abuse not being related to employment, Riger and Staggs (2004) assessed the impact of intimate partner violence on the labor force participation of women beneficiaries of welfare programs. They examined whether changes in economic status affect violence levels. The study concluded that women who have experienced abuse work less than those who have not (Riger & Staggs, 2004). In general, it was stated that because intimate partner violence causes stress-related mental and physical health problems, it is therefore associated with unstable employment with health problems interfering with its stability.

Theoretical Framework

The purpose of this study is to examine the relationship between lockdowns and joblessness among women in the context of the COVD-19 pandemic. This study also controls for variables, such as the household conditions of women. This variable has been said to have an effect on joblessness among women and, to account for these effects, this study enumerates household conditions of women as their perceived household responsibility, hours allotted for household chores, and safety at home.

Specifically, this study tests the impact of lockdowns on the joblessness among women, controlling for household conditions, namely perceived household responsibility of women, their hours allotted for household chores, and their safety at home. The theoretical framework in Figure 1 visualizes these tests, which are consistent with the studies by Floro et al. (2009), Riger and Staggs (2004), and Gonzales et al. (2019).

Figure 1
Theoretical Framework
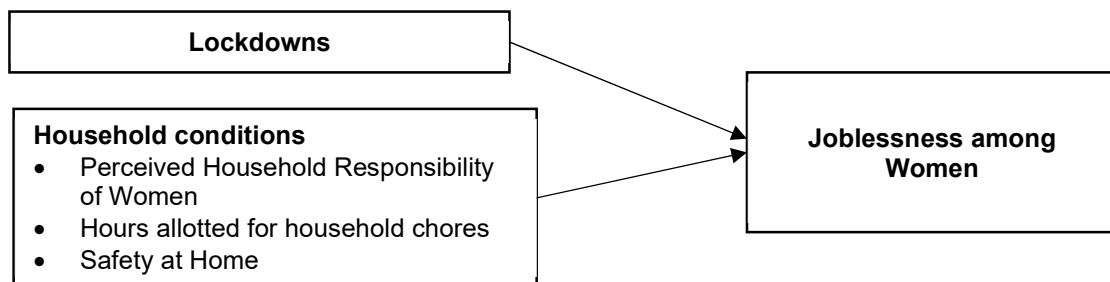
As stated, the following are the study's formulated hypotheses as supported by Floro et al. (2009), Riger and Staggs (2004), and Gonzales et al. (2019).

Hypothesis 1: Lockdowns have a positive relationship with joblessness among women.

This hypothesis is supported by Floro et al. (2009), which in their study on the impact of the economic crisis on women's economic empowerment, concluded that the situations caused by economic crises such as limited access to health and other support services and the rise in the level of violence against women are the leading cause of unemployment for women. Moreover, in a study by Reichelt et al. (2020), the COVID-19 economic crisis caused a higher unemployment risk for women, with more of them transitioning to unemployment than men. Following these results, this paper uses lockdowns as a variable affecting unemployment or joblessness among women.

Hypothesis 2: Perceived household responsibility of women has a positive relationship with joblessness among women.

According to Gonzales et al. (2019), men are preferred over women as long as the former has equal or less qualifications than the latter. This is specially seen in female parents, where employers give them less priority over male parents. They later concluded that, among others, stereotypes and perceived

4

gender roles are the main reasons for this result, hence the hypothesis for this paper, stating the positive relationship between women's perceived household responsibility and joblessness among women.

Hypothesis 3: Increased hours allotted for household chores causes joblessness among women to rise.

This hypothesis is implicitly consistent with the article by Stier and Epstein (2000) that studies the effects of women's employment on gender inequality in the family. The impacts of full and part-time employment of women on household arrangements showed that "husbands of fully employed wives are more likely to participate in housework chores that are female-dominated" (Stier & Epstein, 2000, p.1). The study also concluded that employed women are more likely to engage in financial and expenditure responsibilities than men. Because women prioritize housework by increasing hours of household chores, they are now less inclined to work, therefore depicting the positive relationship between hours allotted for household chores and joblessness among women.

Hypothesis 4: Safety at home has a positive relationship with joblessness among women

In this paper, the unsafe feeling of women in their residence is used to define safety at home to reflect the nature of the data used. Riger and Staggs (2004) stated that women who do not feel safe at home are usually victims of intimate partner violence. In their study, they concluded that women who are victims of abuse participated less in the labor force or not at all. As a result, this study hypothesizes that the more women feel unsafe or uncomfortable at home, the more they are not willing to work, thereby increasing joblessness among women.

Methodology

Data

Joblessness Among Women

According to the Organization for Economic Co-operation and Development (2020), unemployment is the number of unemployed people in the labor force. Defined as persons of working age who are without work but are actively looking for work and are capable and available to do so, unemployed or being unemployed is an ongoing situation for people global (Organization for Economic Co-operation and Development, 2020). Sourced from Facebook's Survey on Gender Equality at Home conducted July of 2020, for this study, joblessness among women was defined as the percentage of women respondents in each country, who have included "Lost of Job" as their answer for the question, "As a result of the coronavirus (COVID-19) pandemic, did you personally experience any of the following?"

Facebook's Survey on Gender Equality at Home asked users from 208 countries about the changes in their homes during the COVID-19 pandemic. Specifically, the survey features questions pertaining to the responsibility of household expenses and chores, decision-making power, perceptions about gender equality at home, and household resources in general.

Lockdowns

For this study, the data used to measure the effect of lockdowns on the unemployment of women are the community residential mobility reports. Sourced from Google's Community Mobility Reports, this data shows how visits and length of stay at the places of residence change compared to a baseline median value. Google collects data from users with location history turned on. This data represents the effects of lockdowns, which restrict or limit people to go outside their residence, hence for this study, changes in residential mobility will be used for the variable, lockdowns.

In order to examine the effects of lockdowns on joblessness among women, this study used data ranging from March 1 to June 30, 2020, which, according to Plumper and Neumayer (2020), was the first wave of the pandemic for most countries. Averaging the residential mobility within these months, before the Facebook Survey was conducted in July, gives rational insights into its effects on the dependent variable, joblessness among women.

This Community Mobility Report has two limitations. One is how all people who do not have a cellphone or have opted to leave without them are excluded and how only people with Google accounts with their location history turned on are included.

Household Conditions

These data were sourced again from Facebook's Survey on Gender Equality at Home Report. Together with the UN, World Bank, Equal Measures 2030, and Ladysmith, this research was conducted among countries included in the seven regions of the world "to capture household gender dynamics during the COVID-19 pandemic" (Cookson, Carlitz, Fuentes, & Berryhill, 2020, p. 5). Specifically, the data to be used for this study are from the survey questionnaire conducted in July 2020 for the aforementioned Facebook report. For the purpose of this paper, the data were narrowed down to relevant variables.

From Facebook's Survey on Gender Equality at Home Report, this study used data that measures the (a) perceived household responsibility of women, (b) hours allotted for household chores, and (c) feelings of safety at home. In terms of perceived household responsibility, the data used were the percentage of women respondents who have agreed or strongly agreed with the statement, "A woman's most important role is to take care of her home and children." On the other hand, for hours allotted for household chores, the data used was the simple average of the percentage of respondents in each country who felt an increase in the amount of time spent on household chores. Lastly, for safety at home, the percentage of respondents who answered agree or strongly agree to the statement "There are times when I feel uncomfortable or even unsafe in my house" was used.

Empirical Model

The following linear regression model is used to control for household conditions to analyze the effects of lockdowns on the joblessness among women:

$$Wjobless_i = \beta_0 + \beta_1 Lockd_i + \beta_2 PerHouseRe_i + \beta_3 HrsDoChores_i + \beta_4 Safe_i + \varepsilon_i \qquad (1)$$

where *Wjobless* is joblessness among women, which is the dependent variable, *Lockd* is the variable that captures the residential mobility of individuals during the COVID-19 pandemic, ε is the error term, and i is the index for country. In terms of household conditions, *PerHouseRe* is the perceived household responsibility of women, *HrsDoChores* is the number of hours women allot for household chores, and *Safe* is the women's safety at home. The coefficients from β_1 to β_4 reflect the marginal effects of lockdowns, perceived household responsibilities, hours allotted for household chores, and safety at home, respectively on joblessness among women.

To check for the consistency of the relationships between the dependent variable (joblessness among women) and the main variables of interest (lockdowns and household conditions), macroeconomic variables and region dummies will be included in the regressions, respectively.

$$Wjobless_i = \beta_0 + \beta_1 Lockd_i + \beta_2 PerHouseRe_i + \beta_3 HrsDoChores_i + \beta_4 Safe_i + \beta_5 GDP_{i,2019} \qquad (2)$$

$$Wjobless_i = \beta_0 + \beta_1 Lockd_i + \beta_2 PerHouseRe_i + \beta_3 HrsDoChores_i + \beta_4 Safe_i + \beta_5 GDP_{i,2019} + \sum y_l z_l + \varepsilon_i \quad (3)$$

In the models shown in Equations (2) and (3), $GDP_{i,2019}$ is the real GDP per capita for country i. In Equation (3), however, z_l is added, which captures the region dummies. Specifically, seven region dummy variables are used, which are South Asia, Sub-Saharan Africa, Latin America and Caribbean, East Asia,

Middle East and North Africa, Europe and Central Asia, and North America. These country groupings follow the Facebook Survey on Gender Equality at Home Report and serve as added controlled variables when examining the impacts of lockdowns on joblessness among women.

Summary Statistics

Table 1 shows the summary statistics of the dependent variable, number of jobless women ($Wjobless$), and the independent variables—imposed lockdowns ($Lockd$), perceived household responsibility of women ($PerHouseRe$), hours allotted for household chores ($HrsDoChores$), and safety at home ($Safe$).

Table 1
Descriptive Statistics

Variable	N	Mean	Median	Std. Dev	Min	Max
Joblessness Among Women (%)	102	21.07	19.00	10.09	4.00	49.00
North America	2	19.50	19.50	3.54	17.00	22.00
East Asia & Pacific	11	21.27	19.00	9.92	9.00	34.00
South Asia	5	19.00	19.00	6.04	11.00	28.00
Latin America and Caribbean	20	32.75	35.50	7.44	16.00	42.00
Middle East and North Africa	11	22.09	23.00	3.39	15.00	26.00
Europe and Central Asia	34	13.09	11.50	5.95	4.00	29.00
Sub-Saharan Africa	19	23.05	19.00	9.99	13.00	49.00
Lockdowns (%)	102	14.10	13.52	6.16	0.40	30.49
Perceived Household Responsibility (%)	102	45.92	44.50	19.07	12.00	80.00
Hours Allotted for Household Chores (%)	102	4.51	4.47	0.98	1.40	7.13
Safety at home (%)	102	34.59	34.00	14.22	11.00	67.00
Real GDP in 2019 ($)	102	16785.81	7592.09	19791.99	573.29	79703.41

Source: Facebook Survey on Gender Equality at Home (2020) and Google (2021). COVID-19 Community Mobility Reports.

In the results presented in Table 1, it is seen that, on average, 21.07% of women lost their jobs during the COVID-19 pandemic. The median percentage of women who lost their jobs is 19%. Across regions, Latin America and the Caribbean have the highest jobless rate at 32.75%, followed by Sub-Saharan Africa at 23.05%. This means that they have the highest occurrence of joblessness among women during the pandemic compared to other regions. These regions are home to the world's poorest nations, such as Mexico in Latin America and the Caribbean and Mozambique, Uganda, and Rwanda in Sub-Saharan Africa. On the other hand, Europe and Central Asia reported the lowest mean women joblessness rate at 13.09%, followed by South Asia at 19% and North America at 19.50%.

Across the countries in the sample, lockdowns reported a mean of 14.10% and a median of 13.52%. These results imply that 50% of the countries in the sample experienced a reduction in travel to locations outside of residence by at least 13.52%. One possible reason for this finding is that countries did not impose lockdowns either because their COVID-19 cases are low or they have implemented other measures to combat the pandemic. The country that experienced the highest (lowest) increase in travel to residential locations is Panama (Mongolia), at 30.49% (0.40%).

On average, it was also observed that 45.92% of women believe that "A woman's most important role is to take care of her home and children." This relatively high rate may be due to the differences in cultures among different countries. On the other hand, on average, despite spending 4.5 hours doing household chores, 34.59% of female participants on average still felt unsafe and uncomfortable in their homes, which may be indicative of domestic violence. It can be seen from the table that the average real GDP of countries in the sample is $16,785.81, with a median of $7,592.09. These results may be due to the differences in the economic status of the 102 countries observed.

Presented in Appendix are the density distribution graphs of the variables listed in Table 1. We can see from Appendix Figure 1 that joblessness among women has a minimum of 4% and a maximum of 49%, and there are large differences in the joblessness rate across countries. As shown in Appendix Figures 2 and 4, the density distribution graphs of lockdowns and safety at home follow a similar pattern with Appendix Figure 1. The density distribution of perceived household responsibility shows a unique pattern with two peaks as shown in Appendix Figure 3, whereas hours allotted for household chores show a normal distribution pattern as depicted in Appendix 5. Finally, the density distribution graph for real GDP shown in Appendix Figure 6 shows a skewed distribution with most countries in the sample on the lower end of the distribution.

Results and Discussion

The OLS regression results are shown in Table 2. This presents the marginal effect of lockdowns on joblessness among women. The first column captures the first model where no controlled variables are included. Considering the effects of household conditions, the second column introduces the controlled variables, namely, perceived household responsibility, hours allotted for household chores, and safety at home. The third and fourth column, on the other hand, includes the macroeconomic controlled variable, that is, real GDP per capita in 2019, with the latter controlling for region dummy variables.

Table 2
Regression Results

Dependent Variable: Joblessness Among Women (%)	(1)	(2)	(3)	(4)
Lockdowns (%)	0.88***	0.55***	0.61***	0.48***
	(0.12)	(0.13)	(0.12)	(0.12)
Perceived Household Responsibility (%)		-0.05	-0.06	0.07
		(0.05)	(0.05)	(0 .07)
Hours allotted for household chores (%)		3.64***	2.87***	2.29**
		(0.96)	(0.94)	(1.08)
Safety at Home (%)		0.21***	0.16**	0.09
		(0.08)	(0.07)	(0.07)
Real GDP in 2019 ($)			-0.00**	-0.00
			(0.00)	(0.00)
Constant	8.71***	-8.33**	-1.04	-2.26
	(1.75)	(3.60)	(4.30)	(5.76)
Observations	101	101	101	101
R-Squared	0.29	0.51	0.54	0.65
Region Controls	NO	NO	NO	YES

Notes: Robust Standard Errors in parenthesis below the estimated coefficients. Asterisks: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Results in the first column of Table 2 indicate that there is a positive relationship between lockdowns and joblessness among women in general. At 0.88 percentage points, the marginal effect of lockdowns on joblessness among women is significant at the 99% level of significance. This entails that for every 1% increase in lockdowns, in terms of residential mobility, joblessness among women increases by 0.88 percentage points, ceteris paribus. On the other hand, the findings for column 2 tell us that when household conditions are controlled for, the positive relationship between the dependent and independent variable decreases significantly to 0.55 percentage points. One controlled variable (perceived household responsibility) displayed an insignificant relationship with joblessness among women. This insignificance maybe because the perception that a woman's most important role is to take care of her home and children is shaped by culture, tradition, and religion. Circumstances may not always reflect this point of view, as some women may want to stay as a homemaker but have no choice but to work. Single mothers, for instance, are inclined to work as the quality of their home environment demands it (Lleras, 2008). Thus, the relationship between perceived household responsibility and joblessness among women is insignificant

because this perception may not always reflect the actual responsibilities of women. Despite this, however, both hours allotted for household chores and safety at home showed significant positive relationships with joblessness among women. A 1% increase in the hours allotted for household chores and safety at home causes joblessness among women to increase by 3.64 and 0.21 percentage points, respectively, ceteris paribus. These results suggest that as lockdowns become more restrictive and as household conditions continue to change due to the pandemic, more women are expected to lose their jobs.

The results in Table 2 also show OLS regression results with real GDP per capita as a controlled variable. It is seen in column 3 that the marginal effect of lockdowns on joblessness among women increased significantly compared to column 2. This indicates that controlling for real GDP, a 1% increase in lockdowns, increases joblessness among women by 0.61 percentage points, ceteris paribus. It also indicates that increasing real GDP by 1% lowers joblessness among women by 0.00 percentage points, ceteris paribus. In terms of household conditions, perceived household responsibility again showed insignificant results, whereas both hours allotted for household chores and safety at home showed positive results that are significant at the 95% confidence level. These positive relationships suggest that a 1% increase in the hours allotted for household chores causes joblessness among women to increase by 2.87 percentage points, and a 1% increase in safety at home causes the same to increase by 0.16 percentage points, ceteris paribus. In other words, the more chores women have and the more women feel unsafe or uncomfortable at home, the more likely joblessness among women occurs.

Accounting for the region dummy variables, results in column 4 showed an even bigger decline in the marginal effect of lockdowns on joblessness among women. Nevertheless, the positive relationship between the lockdowns and joblessness among women is still present and significant at the 95% confidence level. And because R^2 is the highest in this column, this entails that the goodness-of-fit indicator is also at the highest. In this model, 65% of the variance in joblessness among women is explained by lockdowns and hours allotted for household chores. Perceived household responsibility, safety at home, and real GDP per capita all had insignificant results. These suggest that not all regions present a significant relationship between household conditions and joblessness among women. One possible reason for this insignificance is the regional differences in culture as well as policies implemented to combat the COVID-19 pandemic. For instance, household conditions may not have changed in countries where lockdowns were not imposed.

Therefore, as lockdowns, hours allotted for household chores, and safety at home are all positively related to joblessness among women at the 95% confidence level, these then support the first, third, and fourth hypotheses. First is that lockdowns have a positive relationship with joblessness among women, third is that increased hours allotted for household chores causes joblessness among women to rise, and fourth is that safety at home has a positive relationship with joblessness among women. Amidst these, however, because perceived household responsibility showed insignificant results for all models, I was not able to find any evidence to support the second hypothesis, which states that perceived household responsibility of women has a positive relationship with joblessness among women.

Conclusion

In this study, the effects of lockdowns on joblessness among women are explored and quantified. In addition, controlled variables are also included, such as household conditions, macroeconomic variables, and region dummy variables. The premise of this study is to explore the impacts of the COVID-19 pandemic on the status of women. Because research shows that lockdowns slow down the transmission of COVID-19 and that travel restrictions cause a higher degree of interactions within residences, these prompted the study's variables of interest. Such variables are joblessness among women, lockdowns, and controlled variables, which are perceived household responsibility, hours allotted for household chores, and safety at home. Real GDP per capita in the year 2019 is also controlled for as well as region dummy variables.

Linear regression analysis results indicate that, in general, lockdowns are significantly positively related to joblessness among women. Because lockdowns are implemented to combat the spread of the COVID-19, this result reflects studies that the unemployment of women is a direct effect of economic crises.

It has also found evidence of changes in household conditions brought about by the COVID-19 pandemic. Specifically, 45.9% of women agreed that "A woman's most important role is to take care of her home and children," 4.5% agreed to have an increase in the amount of time spent on household chores, and 34.59% agreed that there are times when they feel uncomfortable or even unsafe in their house.

OLS regression results showed that both hours allotted for household chores and safety at home had significant positive marginal effects on joblessness among women, whereas perceived household responsibility displayed insignificant results. On the other hand, controlling for real GDP per capita and region dummy variables increased the preciseness of the model, with 64.90% of the data fitting the regression model.

There are certain limitations to this study. First is that because data for joblessness among women and household conditions were sourced from a Facebook survey conducted per country, it is therefore not disaggregated down to the individual level, which would have provided a bigger sample size and more precise results. Second is that not all citizen of a country has mobile phones or social networking accounts; therefore, data is limited only to those who have. The third is that the marital status is not accounted for in the study, as well as religion, which may explain the insignificance of the relationship between perceived household responsibility and joblessness among women.

In any case, all regression results in the study reveal the negative impacts of the COVID-19 pandemic, not only on the economy but on gender groups as well. It displays how increased time spent at home and with cohabitants can bring about changes in household conditions, which are not always positively connoted. The study infers that these changes do, in fact, worsen joblessness among women. Domestic violence is also brought into the light, such that the variable, safety at home, implies that more women feel unsafe at home during the pandemic and thus result in them becoming jobless or willing to stay as such. Moreover, the closure of schools and daycare centers also forced women to increase the number of hours they allot for household chores and activities, therefore decreasing their time supposedly for work. This again causes joblessness among women to increase. That said, this paper proves to be a great source of reference for future policymakers in the face of similar situations and for future researchers interested in exploring other variables that resulted from the COVID-19 pandemic. Perhaps across different types of women in terms of religion and marital status to account for the perceived household responsibility, or perhaps using individually disaggregated data and all types of mobility for added precision.

References

Cookson, T. P., Carlitz, R., Fuentes, L., & Berryhill, A. (September, 2020). *A gender snapshot of life
during COVID-19; Survey on Gender Equality at Home Report.* Retrieved from
https://dataforgood.fb.com/wp-content/uploads/2020/09/Survey-on-Gender-Equality-at-Home-
Report-1.pdf

Facebook. (2020). *Survey on gender equality at home.* Retrieved from
https://dataforgood.fb.com/tools/gendersurvey/

Floro, M., Tornqvist, A., & Tas, E. O. (2009). *The impact of the economic crisis on women's economic
empowerment* (Working Paper). Swedish International Development Agency. Retrieved from
https://www.researchgate.net/publication/46467791_The_Impact_of_the_Economic_Crisis_on_W
omen's_Economic_Empowerment

Gonzalez, M. J., Cortina, C., & Rodriguez, J. (2019, January). The role of gender stereotypes in hiring: A
field experiment. *European Sociological Review, 35*(2), 187–204. Retrieved from
https://academic.oup.com/esr/article/35/2/187/5370650

Google. (2021, April). *COVID-19 community mobility reports.* Retrieved from
https://www.google.com/covid19/mobility/

International Labour Organization and Organization for Economic Cooperation and Development. (2020).
The impact of COVID-19 pandemic on jobs and incomes in G20 countries. Retrieved from
https://www.ilo.org/wcmsp5/groups/public/---dgreports/---
cabinet/documents/publication/wcms_756331.pdf

Kawachi, I., Kennedy, B. P., Gupta, V., & Stith, D. P. (1999). Women's status and the health of women
and men: a view from the States. *Elsevier, 48*(1), 21-32 Retrieved from
https://www.sciencedirect.com/science/article/abs/pii/S027795369800286X

Lleras, C. (2008). Employment, work conditions, and the home environment in single-mother families.
Journal of Family Issues, 29(10), 1268–1297. Retrieved from
https://journals.sagepub.com/doi/10.1177/0192513X08318842

Mari, E., Fraschetti, A., Lausi, G., Pizzo, A., Baldi, M., Paoli, E., Giannini, A. M., & Avalione, F. (2020).
Forced cohabitation during Coronavirus lockdown in Italy: A study on coping, stress and emotions
among different family patterns. *Journal of Clinical Medicine, 9*(12), 3906. Retrieved from
https://www.mdpi.com/2077-0383/9/12/3906/htm

Organization for Economic Co-operation and Development. (2020). *Unemployment rate.* Retrieved from
https://data.oecd.org/unemp/unemployment-rate.htm

Plumper, T., & Neumeyer, E. (2020, November). Lockdown policies and the dynamics of the first wave of
the Sars-CoV-2 pandemic in Europe. *Journal of European Public Policy.* Retrieved from
https://www.tandfonline.com/doi/full/10.1080/13501763.2020.1847170

Reichelt, M., Makovi, K., & Sargsyan, A. (2020). The impact of COVID-19 on gender inequality in the
labor market and gender-role attitudes. *European Societies, 23*(1), S228-S245. Retrieved from
https://www.tandfonline.com/doi/full/10.1080/14616696.2020.1823010

Riger, S., & Staggs, S. (2004, October). *The impact of intimate partner violence on women's labor force
participation.* U.S. Department of Justice. Retrieved from
https://www.ojp.gov/pdffiles1/nij/grants/207143.pdf

Stier, H., & Epstein, N. L. (2000). Women's part-time employment and gender inequality in the family.
Journal of Family Issues, 21(3), 390–410. Retrieved from
https://journals.sagepub.com/doi/10.1177/019251300021003006

Verma, B. K., Verma, M., Verma, V. K., Abdullah, R. B., Nath, D. C., Khan, H., Verma, A., Vishwakarma,
R. K., & Verma, V. (2020). *Global lockdown: An effective safeguard in responding to the threat of
COVID-19.* Retrieved from https://onlinelibrary.wiley.com/doi/full/10.1111/jep.13483

World Health Organization. (2020a). *Coronavirus.* https://www.who.int/health-
topics/coronavirus#tab=tab_1

World Health Organization. (2020b, December). *Coronavirus disease (COVID-19): Herd Immunity,
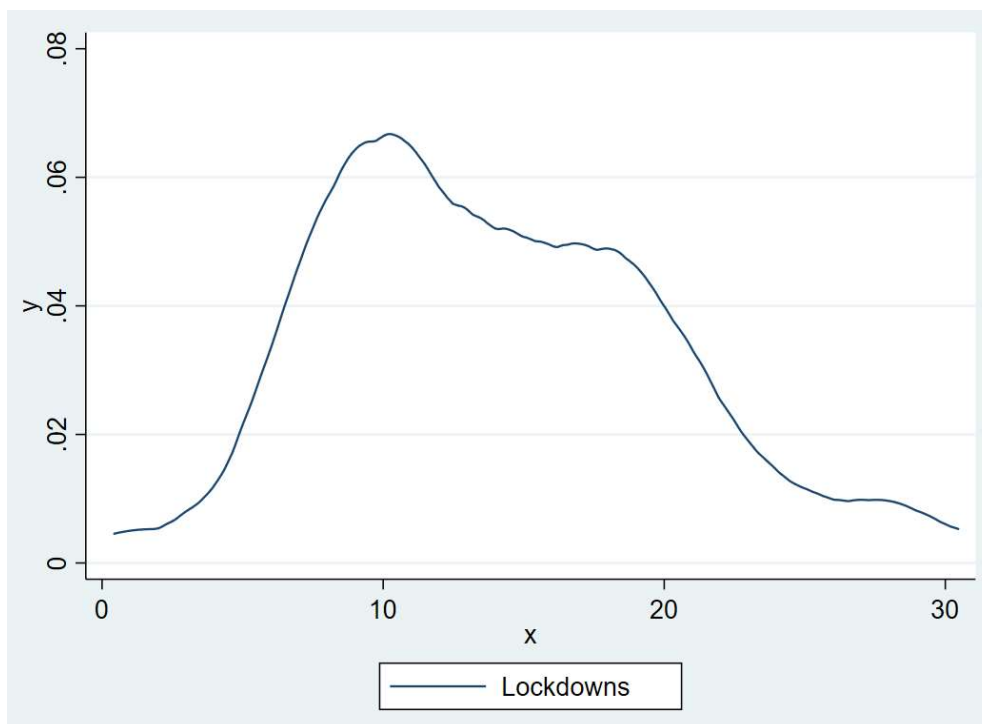lockdowns and COVID-19.* https://www.who.int/news-room/q-a-detail/herd-immunity-lockdowns-
and-covid-19

Appendices

Appendix Figure 1

Density Distribution of Joblessness Among Women
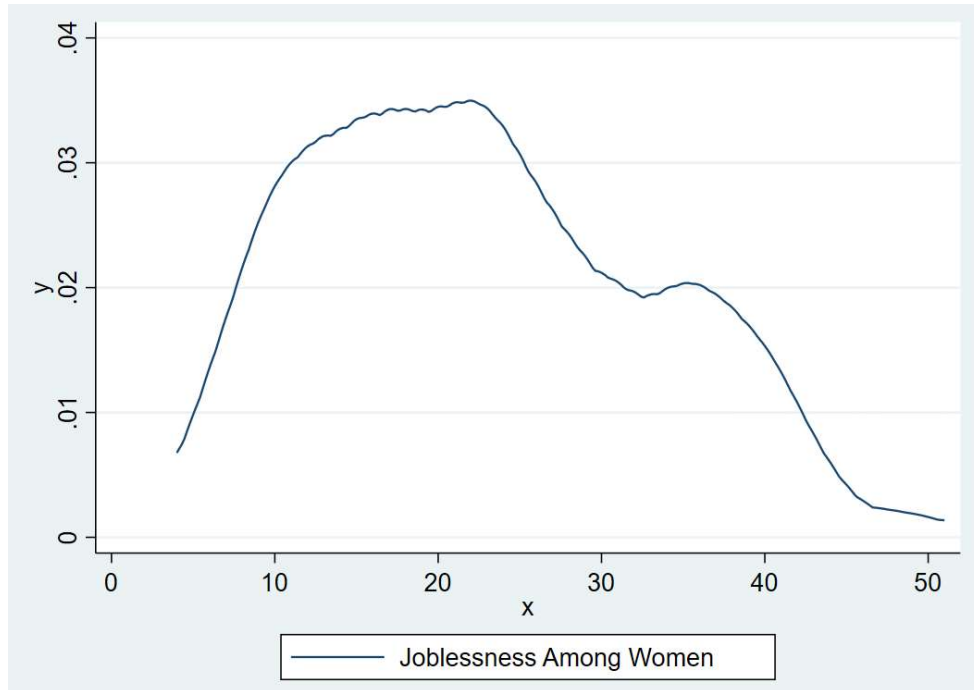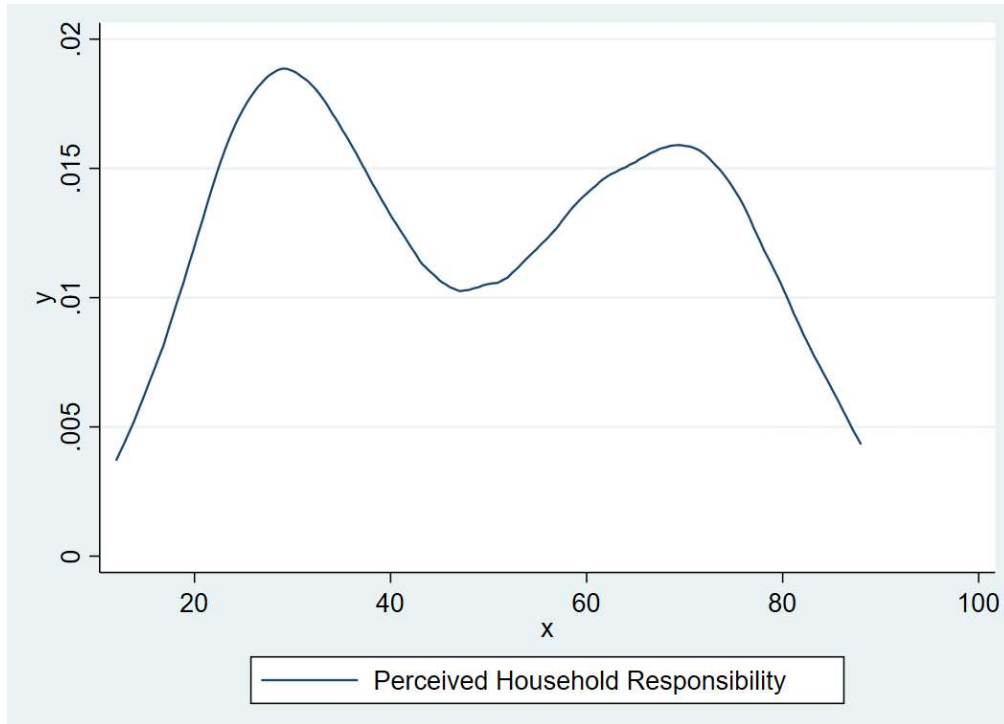

Appendix Figure 2

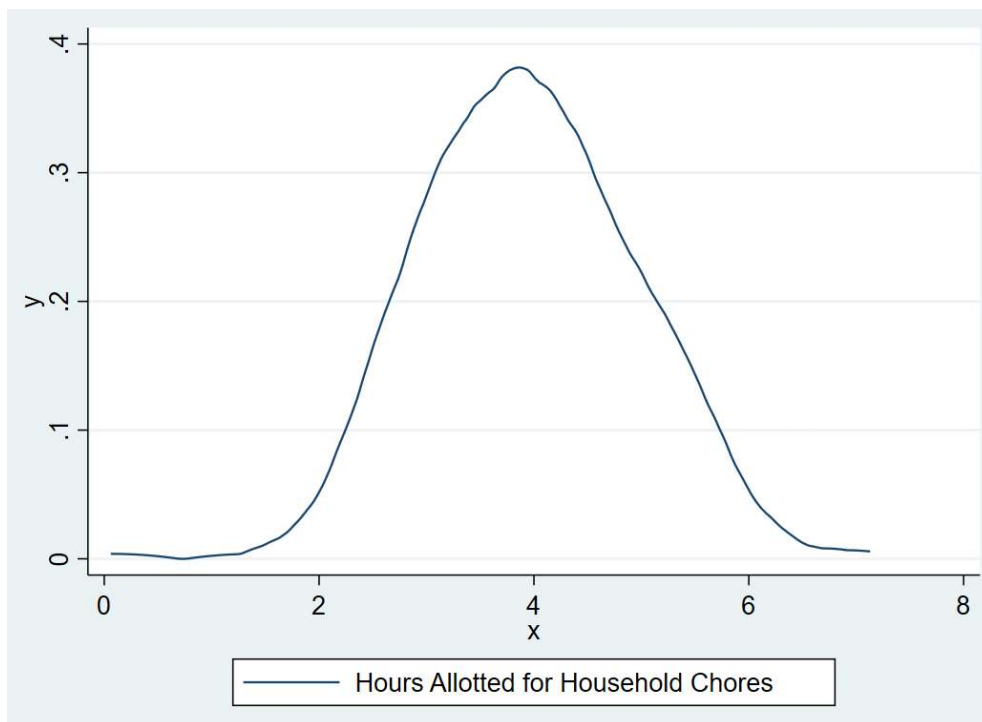*Density Distribution of Lockdowns*

Appendix Figure 3

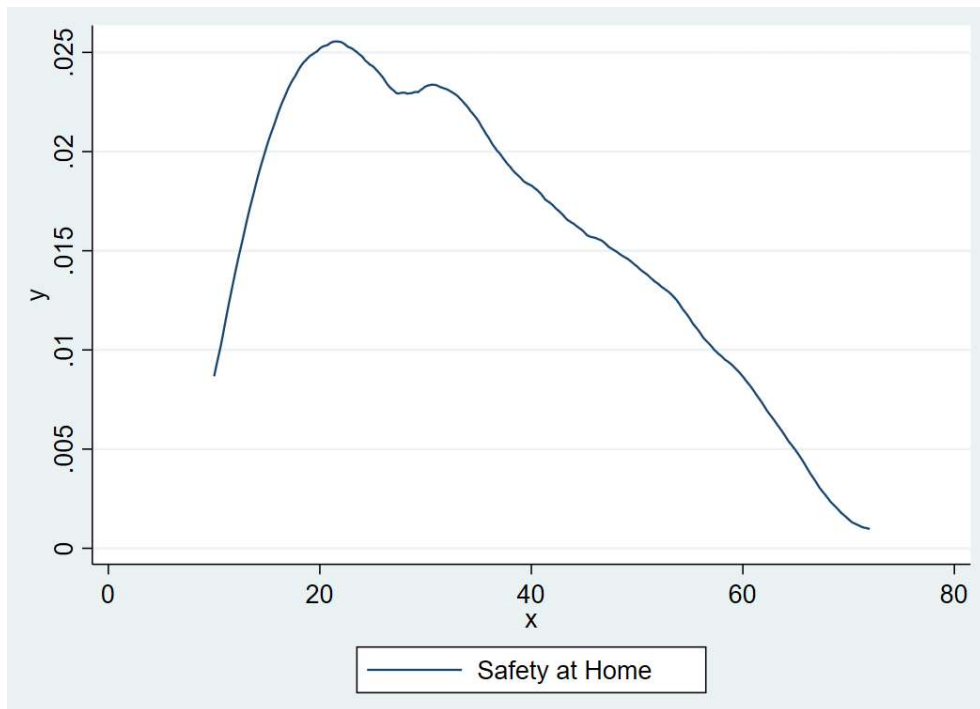*Density Distribution of Perceived Household Responsibility*

Appendix Figure 4

Density Distribution of Hours Allotted for Household Chores

Appendix Figure 5

Density Distribution of Safety at Home

Appendix Figure 6

Density Distribution of Real GDP