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COVID19 and the Value of Non-Monetary Job Attributes to Women: Evidence from A Choice Experiment in Egypt

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COVID19 AND THE VALUE OF NON-MONETARY JOB ATTRIBUTES TO WOMEN: EVIDENCE FROM A CHOICE EXPERIMENT IN EGYPT [1]

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Abstract

Boosting low levels of female labor force participation remains a challenge in the MENA region. Women, especially after marriage and childbirth, typically forgo the labor market (LM), particularly when jobs/job offers are non-family-friendly. Especially for females, a job is perceived as a combined package of wages and non-monetary attributed. This paper relies on an attribute-based discrete choice experiment using hypothetical job offers, as opposed to the employment situation pre and post the outbreak of the Coronavirus. The objective is to estimate the willingness to pay (WTP) distribution for non-monetary job attributes. An experiment was administered within a COVID-19 impact survey in Egypt (namely CETUS20) - 5 months into the outbreak of the pandemic, making it possible to measure the change in job preferences following the COVID19 health shock. The hypothetical choice method robustly identifies preferences, and overcomes challenges to estimate WTP for specific non-monetary job attributes using other methods. Our findings reveal that COVID-19 has led workers to value more positive job amenities, such as part-time jobs, flexible work, work from home and shorter commutes. With the increased burden of domestic work, females with children value the most jobs where they can work on a part-time basis. They would require to receive substantial increases to their current labor income to accept jobs with a non-family friendly set-up, such as the need to work in weekends or night-shifts. Interestingly, however, respondents in the experiment, particularly male workers, have perceived overtime as a positive job amenity. Their WTP for the latter increased post-COVID suggesting income challenges faced by workers post-COVID. Generally, a substantial proportion of our experiment's employed respondents accept the hypothetical job offers they receive during the interview (about 40% of the males and 70% of the females). More than 50% of those who accepted those offers would have never accepted them prior to COVID. Our results reveal the change in the value of employment to workers, particularly females, which comprises both the wage and the non-monetary attributes associated with employment.

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ملخص

لا يزال تعزيز المستويات المنخفضة لمشاركة الإناث في القوى العاملة (FLFP) يمثل تحديا في منطقة الشرق الأوسط وشمال أفريقيا. عادة ما تتخلى النساء، خاصة بعد الزواج والولادة، عن سوق العمل (LM)، خاصة عندما تكون الوظائف/ عروض العمل غير صـــديقة للأسرة. تنظر المرأة على وجه الخصـــوص إلى الوظيفة على أنها حزمة متكاملة من الأجر والفوائد غير النقدية المرتبطة بهذا العمل. تعتمد هذه الورقة البحثية على تجربة اختيار منفصلة قائمة على الخصائص باستخدام عروض

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عمل افتراضــية، مقارنة بالحالة الوظيفية قبل تفشى فيروس كورونا وبعدها. والهدف من ذلك هو تقدير توزيــع الاستـعداد للدفع (WTP) للخصائص غير النقدية للوظيفة. أجريت تجربة ضـمن مسـح "العمل واستخدام الوقت" تأثير كوفيد-19 فى مصرــ(CETUS20) بعد 5 أشــهر من تفشيـ الجائحة، مما جعل من الممكن قياس التغيير في التفضــيلات الوظيفية بعد الصدمة الصحية لفيروس كورونا. كما أن طريقة الاختيار الافتراضية تحدد بوضوح التفضيلات، وتتغلب على التحديات التى تواجه تقدير مدى الاستعداد للدفع للخصائص محددة غير نقدية للعمل باستخدام طرق أخرى. تكشف النتائج التي توصلنا إليها إن فيروس كورونا (كوفيد 19) قد دفع العاملين إلى تقدير وســـائل الراحة الوظيفية الأكثر إيجابية، على سـبيل المثال: الوظائف بدوام جزئي، والعمل المرن، والعمل من المنزل، والتنقلات الأقصرــ مســافة. ومع تزايد عبء العمل المنزلي، تقدر الإناث اللاتي لديهن أطفال أغلب الوظائف التي يمكنهن العمل فيها على أساس عدم التفرغ. وإلاكن سـيحتجن إلى الحصول على زيادات كبيرة فى دخلهم الحالى من العمل لقبول الوظائف غير الصـديقة للأسرة، مثل الحاجة إلى العمل في عطلات نهاية الأسبوع أو العمل بالنوبات الليلية. من المثير للاهتمام أن المشاركين في التجربة، وخاصة العمال من الذكور، نظروا إلى العمل الإضــافي على أنه ميزة إيجابية للوظيفة. زاد الاستـعداد للدفع الخاص بهم لهذا الخيار بعد كوفيد-19 مما يشـير إلى تحديات الدخل التي يواجهها العمال بعد الجائحة. بشــكل عام، تقبل نسـبة كبيرة من المشـاركين العاملين في تجربتنا عروض العمل الافتراضـــية التي يتلقونها خلال المقابلة (حوالي 40٪ من الذكور و70٪ من الإناث). أكثر من 50٪ من أولئك الذين قبلوا هذه العروض لم يكونوا ليقبلوها أبدا قبل كوفيد-19. وتكشــف نتائجنا عن التغير في قيمة العمل بالنسـبة للعمال، وخاصـة الإناث، والتي تشمل كلا من الأجور والخصائص غير النقدية المرتبطة بالعمل.

1. Introduction

Studying the determinants of female labor supply, being an important cause (and outcome) of both growth and development has been persistently the main focus of economic literature. Generally, female labor supply proved empirically to be strongly dependent on family-related life events (such as marriage and child birth). It has been shown that female labor supply drops significantly after family-related life events. In developed countries, this is very likely after childbirth (OECD, 2019), while in developing countries, this is more dependent on the context and the norms, where it could manifest after marriage or after the arrival of children. Women's return to work after disruption has also been often associated with wage losses, and decelerated wage growth and career paths (Angrist and Evans (1998); Bronars and Grogger (1994); Fitzenberger et al. (2013)). Even within an institutional setting that guarantees the return of a new mother, for instance, to her old employer, via parental leave job protection, evidence shows that a women with a child can still opt to return to work at the same or a new employer but at a lower pay. This has therefore suggested the importance of examining how workers, particularly females, value employment as a package (i.e. taking into consideration both wages and non-montary job aspects), rather than just focusing on wages.

As COVID-19 hits the labor markets, it has been noted that the biggest impact lied upon female workers who disrupted their work either temporarily or permanently (with the increased burden of care work...etc). It hence becomes pressing to examine how the pandemic shock affected females' job preferences and hence the new shape of the female labor supply curve. The main objective of this paper is first to assess and provide evidence to whether women really value job amenities when making their job choice? and if so, how did COVID-19 and its related restrictions affect the desirability of positive non-wage attributes, consequently the value of a job and job choices?

An attribute-based choice experiment is used in this paper, involving 1739 workers (506 males and 1233 females) who worked at least one hour in Egypt prior to the outbreak of the Coronavirus in March 2020. The main objective of the experiment was to elicit their preferences for specific non-monetary job attributes (both positive and negative job amenities) associated with private formal employment. The experiment was administered within a COVID-19 impact phone surevy, which was conducted 5 months into the outbreak of the pandemic. Each worker was presented to two hypothetical job offers in the private formal employment sector. The

randomly-assigned offers differed in terms of eight job attributes [3] the nature and duration of the contract, the rate of employment, the length of the commute, possibility to have flexible hours, requirement to work night shifts, in the weekend and overtime. The workers were first asked to decide if they would accept the hypothetical job offer or not as opposed to their current employment status, i.e. their post-COVID employment status which could possibly be non-employment (for those who lost their jobs with the pandemic, 23% of our sample). The workers, who would accept the hypothetical job offers, were then asked to evaluate the monthly income they would require to accept each job. They were also asked to evaluate the job and whether their decision would have changed prior to the outbreak of the COVID19 pandemic. The analyses in this paper therefore relies on the trade-offs between monthly income and each of the other non-monetary job aspects to estimate the willingness to pay (WTP) for a particular non-pecuniary job attribute. The method allows an identification of what is perceived as a positive or a negative job amenity, as well as the quantification of the value of each attribute. Our findings reveal that COVID-19 has led workers to value more positive job amenities, such as part-time jobs, work from home and shorter commutes. With the increased burden of domestic work, females with children value the most jobs where they can work on a part-time basis. They would require to receive substantial increases to their current labor income to accept jobs with a non-family friendly set-up, such as the need to work in weekends or nightshifts. Interestingly, however, respondents in the experiment, particularly male workers, have perceived overtime as a positive job amenity. Their WTP for the latter increased post-COVID suggesting income challenges faced by workers post-COVID. Generally, a substantial proportion of our experiment's employed respondents accept the hypothetical job offers they receive during the interview (about 40% of the males and 70% of the females). More than 50% of those who accepted those offers would have never accepted them prior to COVID. Our results reveal the change in the value of employment to workers, particularly females, which comprises both the wage and the non-monetary attributes associated with employment.

The theory of compensating wage differentials (Smith, 1776) argued that workers are willing to accept lower salaries for better non-pay characteristics, i.e. positive job amenities. Various empirical attempts to estimate

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[3]All possible combinations were created to compile a pool of hypothetical job offer scenarios. The offers were then randomly picked and assigned to the CATI respondents.

these compensating differentials have, however, rarely succeeded in proving that. In the context of women's work, estimating these compensating differentials is crucial for policy makers and governments to be able to plan optimal family-oriented policies that promote positive amenities (to alleviate between private and work life), for instance job flexibility, to boost female labor supply and reduce congestion. This becomes particularly essential as the COVID-19 health shock hits labor markets, impacting labor supply decisions following a combination of job losses, income-cuts, but also increased burden of domestic and unpaid care work as COVID-19 measures and restrictions were implemented. An evident example to these measures was the closure of childcare services (day cares, sporting clubs activities for the summer..etc) and schools. This paper aims to test the hypothesis that following the outbreak of the Coronavirus, and all the consequent related restrictions women put more value to non-pecuniary job benefits, alternatively positive job amenities and further resist negative ones. In other terms, a woman is likely to prefer to negotiate a better package with possibly a lower pay, but better amenities.

The literature has so far adopted two main approaches to estimate compensating differentials. (1) A classic hedonic approach proposed by Rosen (1974, 1986) , where the market prices of each non-pay characteristic is estimated via the coefficients of a cross-sectional regression of earnings. The limitations of this method have led many empirical studies to conclude that compensating differentials are not significant to understand earnings inequality, given that it assumes knowledge of all the possible non-pay characteristics (Brown, 1980; Lanfranchi et al., 2002; Oettinger, 2011; Kniesner et al., 2012) and a perfectly competitive labor market (Hwang et al., 1998; Lang and Majumdar, 2004; Bonhomme and Jolivet, 2009). In other words, empirical estimates relying on this approach have either challenged the compensating differentials theory or have proven to be deficient and incorrect in terms of methods adopted. (2) Following these limitations, a series of attempts to estimate compensating differentials relying on preferences has emerged. This was either done through *(i)* a stated preferences approach, relying on individuals' response to positive amenities in hypothetical jobs (Eriksson and Kristensen, 2014; Mas and Pallais, 2017; Wiswall and Zafar, 2017) or relying on incentive-compatible natural field experiments (He et al., 2019), or *(ii)* a revealed preferences approach accounting for heterogeneity by exploiting matched employer-employee data (Taber and Vejlin, 2016; Lavetti, 2018; Sorkin, 2018).

To our knowledge, this study is one of only a handful of choice experiments examining preferences and attitudes towards non-monetary job at-

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tributes in developing countries in general. In the MENA region, only Feld et al. (2019) used the stated preferences approach to estimate the willingness to pay for certain job attributes. The authors used hypothetical scenarios where they directly asked job seekers about the value they assign to a number of non-wage attributes. Large differences in the estimates were obtained with different elicitation methods. Our experiment is the first attempt to examine labor market preferences and job choices after the COVID-19 health shock hits the labor markets. The focus on the fragile anaemic pool of employed women in Egypt, by oversampling women respondents, also gives an edge to our study. Examples to papers which relied on choice experiments to elicit preferences for job attributes also include Ubach et al. (2003), and Scott et al. (2015). The latter are however limited to particular health care occupations. More recently , Elzir Assy et al. (2019) estimate youtth preferences for specific job attributes and their WTP for support services to access wage or self-employed work in Kenya. Mahmud et al. (2019) use a choice experiment in Bangladesh to elicit WTP for positive job amenities which are typically associated with formal employment. Our experiment is close in spirit to their work since the hypothetical job offers presented to our respondents were specified to be in the formal private sector. The objective was to elicit workers willingness to pay for formality in addition to all other non-monetary job attributes. Finally, Luckstead et al. (2020) is the closest to our work in examining the impact of the pandemic on preferences using choice experiments. They estimate US domestic workers' willingness to accept agricultural field jobs before and during COVID-19 using an attribute-based discrete choice experiment.

To address concerns regarding how accurately stated choices reflect actual ones, the non-monetary job attributes identified in our choice experiment, and the levels of these were primarily based on an extensive review of the Egyptian Labor Law, a literature review of working conditions in the Egyptian labor market, particularly the private formal wage sector, discussions with stakeholders (such as policy makers and private employers) and analysis of pre-COVID labor market datasets (namely Egypt labor force survey, 2018 and Egypt Labor Market Panel Survey, 2018). The experiment identifies the WTP for each job attribute, and randomly assigned each respondent to 2 hypothetical job offer scenarios. The job offer scenarios were tested through 2 pilot phone surveys conducted in July 2020. The attribute levels were modified and revised based on feedback with respect to the appropriateness of questions in the Egyptian context, realism, convenience to the phone (CATI) interviewers and easy comprehension to Egyptian respondents (particularly females).

Discrete choice experiments overcome the caveat of unobserved heterogeneity among workers or firms, which biases WTP for job attributes estimates obtained through hedonic regressions (Hwang et al., 1998). The hypothetical choice method also robustly identifies preferences, free from omitted variable bias and free from considering the equilibrium job match Moreover, it becomes possible to estimate WTP for non-monetary job attributes in the setting of a developing country. Reliable Longitudinal (transitions) from administrative data do not exist , which omits possibilities to rely on *(i)*duration models (Gronberg and Reed (1994), Reed and Dahlquist (1994)) , and *(ii)* estimates of search models (Sullivan and To (2014), Hall and Mueller (2018), Taber and Vejlin (2016), Sorkin (2018)) Moreover, even when administrative data exist, it is not the best resort in a developing country context (in our case the MENA region), which is characterized by subtantial shares of employment in the informal private sector (no contract or social insurance) or in the non-wage sector (i.e. self-employed and employers). The region is also characterized with stagnatly low levels of female labor force participation (about 25% in Egypt) which make samples of employed females extremely small for job search models estimations. Moreover, administering the experiment five months into the outbreak of the Coronaviruse, enables us to elicit the WTP prior to COVID (through retrospective attitude questions referring to attitude only 4 months ago) and post COVID (via direct contemporaneous questions). Finally, as hypothetical tradeoffs between specific job amenities and wages were created, ceteris paribus, estimating WTP for each attribute separately is possible rather than for a bundle of amenities. In this paper, we provide quantitative estimates of how workers value non-monetary job attributes and identify which amenities are valued the most pre- and post-COVID. We also examine the heterogeneity of preferences, by estimating the WTP by gender and presence of children.

Our study also contributes to the policy discussion regarding boosting female labor force participation in the MENA region, specifically in the private formal sector; seeking to encourage private employers to create family-friendly jobs which can mimic the attractive public sector jobs.

Our findings provide evidence to which specific job amenities attached to private formal employment are more valuable to female workers, particularly post-COVID, and thus should have higher priority in policy discussions related to lebor demand and job creation in Egypt. The failure to fully model the value of a job upon which labor market agents (job seekers and employers) base their decisions, results in the formulation of policies, which are not necessarily effective as required and which do not target specifically the root cause of the problem. While various active labor market policy programs

have been implemented in the Egyptian labor market, none has taken into consideration the non-pay characteristics of a job - an essential component of the value of the job to both workers (particularly females) and employers. The unprecedented crisis, induced by the outbreak of COVID-19 and its related restrictions, has primarily impacted labor supply's job preferences, particularly the value of the job's non-monetary attributes. Non-pay characteristics such as possibility to work from home, flexible hours, close distance to one's residence, among others, have gained an extra weight in one's job value and consequently in the decision equation (Baert et al., 2020).

The rest of the paper is as follows; Section 2 an overview of the survey, data collection and sampling. Section 3 outlines the design of the choice experiment. In section 4, a discussion of the results is provided. Finally, section 5 concludes.

2. Survey Design and Data

2.1. Administration

We conducted the COVID-19 Employment and Time-Use Survey 2020 (CETUS20) in Egypt, of 1739 workers in Egypt. The survey design and data collection has been funded by the Swiss National Science Foundation. The survey was conducted through phone-based interviews (CATI), conducted by a professional local data collection firm. The interviews ranged between 10-15 minutes., and were conducted in simple Egyptian Arabic to facilitate the comprehension among the heterogenous Egyptian population. The sampling design relied on a random digital dialing list of both mobile phones (95%) and landlines (5%). The stratification was created according to the Egyptian communication market shares (operators, as well as mobiles vs. landlines) , reported by the NTRA. the random list of landlines was stratified according to the population distribution among governorates as per CAPMAS 2020. The data is fielded over the months of August through November 2020, i.e. four months into the outbreak of COVID-19 in Egypt.

The CETUS20 sample consists of 1233 females and 506 males collected who were employed (at least an hour) during the month of February 2020, i.e. before the COVID-19 situation in Egypt. One of the specialized modules of CETUS20 is about the 'job search behavior' before (i.e. February 2020) and after COVID-19 (i.e. date of interview). This module includes two particular novelties compared to previously collected Egyptian data. First, job search behavior is captured for all respondents including the currently employed. On-the job search behaviour is directly captured through our questionnaire. The second novelty in this module is the administration

of the randomized choice experiment where respondents are presented to 2 hypothetical job offer scenarios. We rely primarily to the responses to questions in this module to estimate the willingness to pay for a particular set of non-monetary job attributes.

Acknowledging the importance and the value of the COVID-19 MENA monitor survey to the research efforts exerted to assess the impact of COVID-19 on the Egyptian labor market, the below table highlights the main differences between CETUS-20 and COVID-19 MENA monitor surveys. These differences highlight the specifics and value added of the CETUS-20 survey and explain our choice to rely on this dataset in the analyses in this paper.

2.2. ERF COVID-19 Monitor Surveys Vs. CETUS surveys

[Table 1 about here.]

2.3. Sample size, characteristics and weighting

The targeted group of participants in the CETUS20 survey are residents of Egypt, males and females between the age of 18 and 64 years old (i.e. the working age), with a mobile telephone and/or a landline. Participants were required to have worked for at least an hour during the month of February (i.e. before the outbreak of Covid-19 in Egypt). Our sample therefore consists of workers who were initially employed before COVID, and tracks their work status four months after the outbreak of the pandemic. 23% of our sample have reported to be non-employed at the time of the interview.

CETUS20 deliberately oversamples females, who were employed prior to Covid-19; a target group which is expected to be among the most prone and vulnerable to the COVID-19 shock and its related restrictions. Due to low female labor force participation rates in Egypt, a totally random sampling method would have yielded a substantially small sample of our study's target group. The survey's questionnaires included questions for the number of mobile phone numbers and landines within the household, necessary for the appropriate weights creation for the datasets. Further weighting of the samples is also implemented, to reflect the demographic composition of the population as obtained by the most recent labor force survey in Egypt. [4].

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[4]Calculations and results in this draft are temporarily based on raw unweighted data, except for frequency weights to correct for the oversampling of females when analysing a pool of both males and females.

2.3.1. The modules of the CETUS survey

In addition to general modules about the household, background, basic information on the individual characteristics, as well as the spouse (particularly employment description and situation) and the children, CETUS20 offers 3 specialized modules, carefully and specifically designed to capture variations in employment, time-use and job search behavior from before COVID-19 (i.e. February 2020) to the date of interview.

1. **Employment** The questions in this module are designed to capture the impact of COVID-19 on the general labor market status of the individual, as well as the detailed job characteristics. This includes the sector of employment, formality of the job (contract and social insurance), regularity of the job, commuting distance, working hours, income, non-monetary job attributes such as possibility to work from home, overtime, flexibility in working hours, ...etc.

2. **Job Search Behaviour** This module includes 2 particular novelties compared to previously collected Egyptian data. First, job search behavior is captured for all respondents. This includes *(1)* unemployed whether they are actively or inactively searching for a job, *(2)* the currently employed who are actively searching (on-the-job search) or willing to consider received job offers, and finally *(3)* the non-searching individuals who are incited via our questions to imagine the need to search for a job following a change in the circumstances. The second part of this module is the administration of our discrete choice experiment where the respondents receive the two hypothetical job offer scenarios. The workers were first asked to decide if they would accept the hypothetical job offer or not as opposed to their current employment status, i.e. their post-COVID employment status which could possibly be non-employment (for those who lost their jobs with the pandemic, 23% of our sample). The workers, who would accept the hypothetical job offers, were then asked to evaluate the monthly income they would require to accept each job. They were also asked to evaluate the job and whether their decision would have changed prior to the outbreak of the COVID19 pandemic. The analyses in this paper therefore relies on the tradeoffs between monthly income and each of the other non-monetary job aspects to estimate the willingness to pay (WTP) for a particular non-pecuniary job attribute. The method allows an identification fo what is perceived as a positive or a negative job amenity, as well as the quantification of the value of each attribute.

3. **Time-Use** Our survey measures the amount of time people spend on

each activity within a list of 14 activities over the most recent working 24 hours period of time. Questions are elicited to measure the variation in time-allocation amid the COVID-19 outbreak.

3. Choice Experiment Design and Model Estimation

3.1. Non-monetary job attributes

We present and identify in this section the job attributes and their corresponding levels, which were described in our choice experiment. Our respondents were presented to two hypothetical employment opportunities, each with different levels of the following 8 types of non-monetary job attributes: the nature and duration of the contract, the rate of employment, the length of the commute, the possibility to have flexible hours (i.e. the flexibility to determine the start and the end of the working day), night shifts ((before 6 am and after 8 pm), requirement to work in the weekend and overtime. We stressed to all respondents that all other attributes, which are not specified in the job offer scenario were identical to their current job (i.e. their other choice). The hypothetical job opportunities were identified as jobs in the regulated private sector with a written contract and social insurance. In other words, these alternatives were labeled as jobs in the "formal private sector". We are aware that this automatically causes respondents to make assumptions about other aspects associated with the employment opportunity, which is the reason why we include the choice of public sector and formality as valued job amenities in the conditional logit regressions. This should capture all considerations regarding the sector of employment.

Moreover, in the job search module of the survey, the workers were asked if they are searching for a job and/or willing to accept a job offer. If they respond positively, they are asked about their aspired job title position, and whether it corresponds to their current job. The hypothetical job offer describes the amenities associated with the description of the job title/position of the current job unless a different aspired job title/position is precised in the job search module. This is controlled for in the conditional logistic regressions via a dummy variable with value "0" if hypothetical offer carries the same description as job in comparison, and value "1" if hypothetical offer provides a different job title/position as opposed to the job in comparison.

The workers were first asked to decide if they would accept the hypothetical job offer or not as opposed to their current employment status, i.e. their post-COVID employment status which could possibly be non-employment (for those who lost their jobs with the pandemic, 23% of our sample). The workers, who would accept the hypothetical job offers, were then asked to

evaluate the monthly income they would require to accept each job. They were also asked to evaluate the job and whether their decision would have changed prior to the outbreak of the COVID19 pandemic [5].

Table 2 shows the full set of non-monetary job attributes and their corresponding levels that we have specified in our experiment. The specific attributes and their levels were initially selected based on a review of the Egyptian Labour Law governing contracts and working conditions in the private formal sector. We have also considered the previous literature (academic, poilcy papers, previous labor market surveys and field experiments) on working conditions and job amenities in the formal private sector in Egypt. We have refined our choices through some discussions with stakeholders (public, private and civil society). We have also conducted 2 pilot phone surveys during the month of July to get feedback from the professional interviewers conducting the phone interviews, their supervisors as well as the respondents. For the employment situation and characteristics in February (pre-COVID) and at the time of the interview (post-COVID), a group of direct questions were asked about the non-monetary attributes in Table 2 associated with the respondents' job.

Since our survey included a wide range of respondents employed in different employment sectors (presence of informal workers and self-employed), occupations and industries, we preferred to leave it to the respondent to decide on and evaluate the monthly wage at which he would accept the offer. In our regressions, we then frame the monetary variable relative to the current monthly income, rather than a fixed monthly income.

[Table 2 about here.]

3.2. Experimental Design

Given the number of the attributes we wished to consider in our experiment, we have opted the particular discrete levels, rather than the continuum for particular variables such as the commuting time and employment rate. We created an exhaustive list of all possible combinations of the different levels of the non-monetary job attributes in Table 2. This yielded a list

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[5]It is acknowledged that the pre and post-COVID comparison might potentially suffer from a bias due to recall measurement errors. Given that the difference between the points in time (i.e. between Feb2020, and the time of interview) ranges between 4-6 months, it is assumed that the recall bias is not substantial and the estimates provide a good proxy to the sign and magnitude of change in preferences towards the different job amenities.

of 3072 hypothetical job offer scenarios (each being a specific combination of attributes. The scenarios were then assigned randomly to respondents. Since we were conducting a phone-based survey, the scenarios were assigned to the initial random dialing list. Table 3 shows the proportion of respondents who received each level of the different attributes. Our randomization technique guaranteed a relatively proportionate distribution of the different levels among respondents.

[Table 3 about here.]

3.3. Model Estimation

To estimate WTP using the choice experiment data, we follow standard practice by starting with a random utility model (McFadden et al., 1973). The utility U_j received by an individual as he/she opts for a particular alternative j if dependent on the attributes x_j associated with that choice.

$$U_j = v(x_j) + \epsilon_j \tag{1}$$

In equation 1, ϵ_j are the unobserved individual characteristics.

An individual chooses the job alternative which yields the maximum satisfaction, i.e. utility. The probability an individual chooses job i from a choice set S is therefore presented in equation 2.

$$Pr_n(Y = i) = Pr_n(v_i + \epsilon_i > v_j + \epsilon_j) = Pr_n(v_i - v_j > \epsilon_j - \epsilon_i) \quad \forall i \neq j \tag{2}$$

Assuming unobserved errors are independent and identically distributed with a Type 1 extreme value distribution, we obtain a conditional logit model.

Using a linear-in-parameters utility function, the probability that an individual n chooses alternative i can be written as:

$$Pr_n(Y = i) = \frac{exp(x_i'\beta)}{\Sigma_{j \in S} exp(x_j'\beta)} \tag{3}$$

A standard maximum likelihood model is then used to estimate the parameters. The ratio between the parameter estimates for any two attributes k and m yields the marginal rate of substitution (MRS) between them. Since one of the attributes is the percentage change in the monthly income (relative to income pre or post-COVID), the marginal value of any other non-monetary job attribute is estimated by taking the ratio of coefficient of

that particular attribute β_k and the coefficient on the percentage change of wage β_w. The WTP for job attribute k is therefore given by equation 4:

$$WTP_k = \frac{\delta U/\delta x_k}{\delta U/\delta x_w} = \beta_k/\beta_w \qquad (4)$$

4. Results and Discussion

In Table 4, we show some basic demographics for the 1739 workers who completed the CETUS20 survey. We apply frequency weights to correct for the oversampling of females [6]. 70.9% of CETUS20 responts were women, who make up only about 49% of the underlying population. The mean age of the respondents is 36.9 (36 for males and 37.25 for females). Our survey captured 12.25% of the respondents who had no formal education (illiterate or Read & Write), and 87.75% had some form of schooling, with the majority being secondary and above. Construction (17.79%), Manufacturing (16.05%) Other services (24.73%) are the top three employment industries among male respondents, while Manufacturing (14.75%), Health (26.4%), and Education (15.62%) are the top three employment industries among female respondents. The majority of male respondents are blue collars, while 35.64% of female respondents were professionals.

4.1. Respondents Demographics
[Table 4 about here.]

Table 5 shows the distribution of respondents by gender and type of employment before and after the outbreak of the Coronavirus in March 2020. About 23% of our sample reported to be not employed at the time of interview (i.e. post-COVID). About 53% of the male workers and 39.82% were informally employed in February 2020. As expected, and as has always been reported by previous literature, a substantial share of females (35.04%) works in the public sector. Table 5 also shows some basic summary statistics for the different non-monetary job attributes, similar to the ones considered in our experiment, reported by workers in their pre- and post-COVID jobs. Clearly, for the post-COVID coloumn, only those who remain employed are considered.

[Table 5 about here.]

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[6]Sampling weights will be applied for the final draft of the paper.

4.2. Evidence to the Evident: Impact of COVID-19

In Figure 2, we show the employment state transitions following the COVID-19 outbreak using the CETUS20 dataset. Fewer males have maintained their pre-COVID job compared to females. However, 11% of males who worked in February 2020 have found a different job ever since, against only 3% of females. Also, the informal sector has clearly witnessed the highest job exits across different employment sectors (58.11% of informal workers have changed their job post-COVID). Women who lose their jobs, do not easily find different jobs like men i.e. 26% females have stopped working (Figure 1). This could be partly due to longer hours spent on domestic work (housework and child- care) with the closure of daycare services and educational institutions. Therefore, women do not easily find jobs with flexible work arrangements that would allow them to reconcile between market work and increasing house and care work. Excluding those who used to be employed in the public sector in February 2020 from the sample, we observed that 64% of male workers have maintained their original job against only 60% for females.

[Figure 1 about here.]

Table 6 shows that amongst male workers who changed jobs, only 8.33 percent were originally public sector employees, against 14.58 percent who used to work in the private formal sector, 16.67 percent non-wage workers and 60.42 percent were informal workers before the COVID-19 outbreak in Egypt. As for those who exited to non-employment, 71.43 and 67.04 percent were informal workers for males and females respectively.

[Table 6 about here.]

Table 7 presents the job transition rates of those who changed jobs post the COVID-19 outbreak. Clearly, the private informal sector absorbs most of the job deterioration occurred in the other sectors is with 50 percent of public sector employees going to the informal sector wage work, 60 percent from the private formal wage work and 50 percent from the non-wage work.

[Table 7 about here.]

Relying on the stated preferences of our respondents, we show here some basic descriptives of the responses to the hypothetical job offers collected in the CETUS20 survey. We first ask the respondents if they would accept our

hypothetical offers or not. Respondents were either employed, unemployed or inactive at the time of the interview. 33% of the employed males and 51.66% of the employed females reported to be on-the-job search. Table 9 shows that the majority of these job seekers are employed informally or are self-employed. This included those who are actively looking for a job or willing to consider a job offer other than their current situation. The take-up rates (those who accept the jobs) of our hypothetical job offers by Gender and work status are reported in Table 8. Interestingly the take-up rate is higher among the employed than the non-employed for both males (38.38% versus 27.68%) and females (69.27% versus 61%). These percentages should be taken with a grain of salt at this point given that the sampling weights have not yet been applied. Table 9 shows the distribution of the respondents who accept our hypothetical job offers by type of employment. Interestingly, a high proportion of females (46.99%) and males (25%)were already employed in the public sector, confirming that these workers are primarily in the public sector for its non-monetary job attributes. When the stress was made on these attributes in the private formal sector, these individuals considered changing their jobs [7].

[Table 8 about here.]

[Table 9 about here.]

Respondents who accept our hypothetical job offer scenarios are then asked to value the minimum salary required to accept specific job offers in the formal private sector (i.e. with contractual arrangements and social insurance). Figure 2 illustrates the change in minimum monthly wage required by the respondents to accept the proposed hypothetical job offers. We directly measure through our questions the change in the respondents' attitudes and job search behavior amid the outbreak of the Coronavirus. This is particularly revealed for their preferences to the non-monetary job attributes we elicit in our experiment.More than 50% of the female respomdents, whether employed (59.64%) or non-employed (53.17%) would have never accepted the job offer before COVID. 42.88% of employed males and 37.95% of the non-employed males would have never accepted the offer pre-COVID. 14.5% (16.07%) percent of employed (non-employed) males and

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[7]Further breakdowns and observed characteristics will be carried out and discussed in the final draft to those to provide further evidence for this section.

10.28% (14.5%) percent of employed (non-employed) females would have asked for a higher minimum wage in the pre-COVID time.

[Figure 2 about here.]

4.3. Conditional Logit Results

Table 10 presents the estimation results from the conditional logit model. We first run the model for the entire sample (both males and females), once for the pre-COVID choice experiment (with the alternative to the hypothetical job offer scenarios being the job occupied in February 2020) and a second time for the post-COVID choice experiment (with the alternative choice to the hypothetical scenario being the post-COVID job -at the time of the interview). Commuting time is the only attribute included in the regression as a continous variable. All other job attributes levels are included as dummy variables. The excluded levels are: No contract and less than a year contract , full-time work (40 hours/week), possibility to work from home (none), Possibility to have flexible hours (none), Required to work in weekend (none), Required to work nightshifts (none) and overtime (none), private sector, sector of employment(informal and self-employed). Frequency weights are applied and standard errors are clustered at the respondent level. Percentage change in income which can be negative, or null is a linear variable. For those respondents who declared not to accept the hypothetical job offer, the wage of the hypothetical job was assumed to be equal to the respondent's monthly labor income plus the standard deviation of the monthly wages of the sample. The intuition comes from the fact that the way these respondents react to the job offer is that no matter how much they are offered, they would never accept this job. The signs of the coefficients are generally consistent with economic theory, particularly in the post-COVID, i.e. the contemporaneous (where no recall is involved) regression.

The amenities perceived as positive ones are longer contracts, part-time jobs (conditional on receiving the same income), possibility to work from home, possibility to have flexible hours, overtime, work in the public sector or the formal sector. Respondents prefer shorter commutes and perceive work in weekend and the requirement to work nightshifts as negative amenities.

It is worth noting that a number of amenities, specifically the contract duration and overtime, have changed signs from pre to post COVID. The

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coefficients for these amenities are however insignificant, and the interpretation of the change in sign should be considered with a grain of salt.

In coloumns (2) and (4) of Table 10, we calculate the willingness to pay for each job attribute. In other words, we estimate the marginal value of each attribute (i.e. the marginal rate of substitution between the job amenity and a one percentage change in income). This is calculated by dividing the coefficient associated to a specific job attribute by the cofficient of the percentage change in income. Our results suggest that workers generally value job amenities more post-COVID particularly (significant results) part-time work, work for home, overtime, flexible hours, work in the public sector. A more significant increase in the wage is required to compensate for negative amenities such as the requirement to work nightshifts and longer commutes to work.

The average worker would be willing to forego post-COVID a 3 percent increase (as opposed to 0.2 percent increase pre-COVID) in monthly wage in order to acquire the aspried job title/position. Moreover, an average worker is willing to give up between 2-3% increase in salary for a longer duration contract (relative to no contract). It is surprising however that the amount is the highest for a less than 1 year contract (2.7%), followed by 2% for a more than 3-year contract, and finally 1.8% for a 1-year contract.

A significant increase post-COVID in the WTP for a part-time work of less than 8 hours/week is observed. An average worker would be willing to forego post-COVID a 2.4 percent increase (as opposed to 0.6 percent increase pre-COVID) in monthly wage to have a part-time job of less than 8 hours/week. Similar calculations can be made for work from home and flexible hours, where workers would be willing to sacrifice 2% of their wage to access a job that allows work from home or flexible hours. Moreover, workers significantly value public sector work, and formal work, where they are willing to forego a 6% and 3% increase in wage respectively. On the other hand, post-COVID, an average worker requires an increase of 3% in the wage to accept a job which require nightshift work.

[Table 10 about here.]

4.4. Exploring Heterogeneity in Willingness to Pay

Our esperiment includes a wide range of heterogenous workers. This makes it possible to examine how these preferences vary across the different observable characteristics. The most relevant to our research question being gender and having children. COVID-19 and its related restrictions

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and measures have had a substantial impact on females, particularly those with children. In Table 11, we re-run the conditional logit regressions for 4 distinct samples; (1) Males, (2) All Females, (3) Ever Married Females , and (4) Females with Children. Table 12 provides the WTP for each type of job amenity for each sample pre- and post-COVID.

Following the outbreak of COVID-19, it is observed that male workers value more the public sector work and the formal work, as well as possibility to work from home, flexible hours and long-duration contracts (greater than 3 years). Overtime is perceived as a positive amenity, especially post-COVID, which might be linked to financial challenges faced by workers during the health crisis.

As for females, part-time work has proven to be particularly desired, especially post-COVID. An average female worker with a child or more is willing to forego 5.25% (an increase of 4.7pp from prior to COVID) of an increase in the monthly wage to access a part-time job (of less than 8 hours/week), and 2.25% (an increase of 2pp) of an increase in the wage to acquire a part-time job (of more than 8 hours/week). Moreover, after the outbreak of COVID, a female with a child or more would require an increase in pay of 10.2% to consider a job which requires a nightshift work. Surprisingly, work from home is not as valued as the case with their male worker peers. For flexible hours, female workers with children are willing to give up a 1.2% in salary to access a job with this amenity.

[Table 11 about here.]

[Table 12 about here.]

5. Concluding remarks

This paper seeks to contribute to the literature discussing how low levels of female labor force participation remain a challenge in the MENA region. COVID-19 worsens the situation even further through the increased burden of domestic work and unpaid work imposed on women with children, through the restrictions, measures and closure of daycares and schools. A substantial share of women, especially after marraige and childbirth, typically forgo the labor market when their jobs and/or the job offers they receive are non-family-friendly. Female labor force participation is an underutilized potential of Economic Growth and development in the MENA region.

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We administered an attribute-based discrete choice experiment using hypothetical job offers, as opposed to the employment situation pre and post the outbreak of the Coronavirus. The objective is to estimate the willingness to pay (WTP) distribution for non-monetary job attributes. Conducting the experiment within a COVID-19 impact survey in Egypt (namely CETUS20) - 5 months into the outbreak of the pandemic, we were able to measure the change in job preferences following the COVID19 health shock. The hypothetical choice method robustly identifies preferences, and overcomes challenges to estimate WTP for specific non-monetary job attributes from hedonic wage regressions, duration models or job search model estimations. Transitions data in the region are rarely available, suffer from inaccuracy and biased where a substantial share of workers are informally or self-employed.

COVID-19 & its related restrictions impacted labor supply's job preferences particularly the value of a job's non-monetary attributes. Our findings reveal that COVID-19 has led workers to generally value more positive job amenities, such as stable jobs with longer contracts, part-time jobs, work from home, flexible work and shorter commutes. With the increased burden of domestic work, females with children value the most jobs where they can work on a part-time basis. They would require to receive substantial increases to their current labor income to accept jobs with a non-family friendly set-up, such as the need to work nightshifts. Interestingly, however, respondents in the experiment, particularly male workers, have perceived overtime as a positive job amenity. Their WTP for the latter increased post-COVID suggesting income challenges faced by workers post-COVID. Generally, a substantial proportion of our experiment's employed respondents accept the hypothetical job offers they receive during the interview (about 40% of the males and 70% of the females). More than 50% of those who accepted those offers would have never accepted them prior to COVID. Our results reveal the change in the value of employment to workers, particularly females, which comprises both the wage and the non-monetary attributes associated with employment.

The paper hence reveals that specific job amenities attached to private formal employment are more valuable to female workers (especially those with children), particularly post-COVID. The consideration of non-monetary job attributes should therefore have a higher priority in policy discussions regarding labor demand and job creation in Egypt. The failure to fully model the value of a job (being a package of both wage and non-monetary attributes) results in the formulation of policies which are not necessarily effective as required and which do not target the root cause of the problem. This paper provides evidence to the value and significance of

non-monetary job attributes in participation and job choice decisions. The paper clearly recommends that labor market policy programs implemented in Egypt are should take into consideration the non-pay characteristics of a job - an essential component of the value of the job to both the workers and the employers.

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List of Tables

Table 1: Contrasting the ERF COVID-19 MENA Monitor Surveys and CETUS20 Survey.

	ERF COVID-19 Monitor Surveys	CETUS surveys
Main Objective	The main objective of the surveys is to capture how households and enterprises in general are coping with COVID-19 crisis.	The main objective of the surveys is to capture how working women in particular are coping with the COVID-19 crisis
Countries	Morocco, Tunisia, Egypt, Jordan	Egypt
Sampling	A general random sample which includes Households, workers, micro and small enterprises –	A random sample of individuals working prior to COVID-19 (18-64 years old); **Females oversampled**
Sampling Methods	Random Digit Dialing (RDD) RDD system is used to ensure a nationally-representative sample of those with mobile phones access	Random Digit Dialing (RDD) RDD system is used to ensure a nationally-representative sample of those with mobile phones access **and landlines**
Modules	General impact on people and firms' livelihoods	A focus on post-COVID19 employment/jobs, time-use and non-monetary job attributes/amenities
Frequency	Short Panel Surveys (Multiple waves)	Wave 1 (August-November2020)

Attribute	Levels
Nature and Duration of Contract	Definite duration; 6 months Definite duration; 1 year Definite duration; 3 years Indefinite duration, permanent
Rate of employment	Part-time; 8 hours/week Part-time; 20 hours/week Full-time; 40 hours/week
Commuting time (one way, door to door)	5 minutes 15 minutes (Quarter of an hour) 30 minutes (half an hour) 45 minutes (1 hour less 15 minutes) 60 minutes (1 hour) 80 minutes (1 hour and 20 minutes) 100 minutes (2 hours less 20 minutes) 120 minutes (1 hour and 20 minutes) 60-75 hours per week
Possibility to work from home	Yes No
Possibility to have flexible hours	Yes No
Required to work in the weekend	Yes No
Required to work nightshifts	Yes No
Overtime	Yes No

Table 3: Proportion of respondents in the different levels of attributes of the hypothetical job offers

Nature and Duration of Contract	
Definite Duration, 1 year	24.7
Definite Duration, 3 years	25.45
Definite Duration, 6 months	25.42
Permanent, Indefinite duration	24.44
Employment Rate	
Part-time; 8 hours/week	33.04
Part-time; 20 hours/week	34.47
Full-time; 40 hours/week	32.49
Commuting Time	
5 minutes	12.16
15 minutes (Quarter of an hour)	13.05
30 minutes (half an hour)	11.47
45 minutes (1 hour less 15 minutes)	12.62
60 minutes (1 hour)	13.05
80 minutes (1 hour and 20 minutes)	12.42
100 minutes (2 hours less 20 minutes)	11.76
120 minutes (1 hour and 20 minutes)	13.46
Possibility to work from home	
Yes	50.17
No	49.83
Possibility to have flexible hours	
Yes	51.26
No	48.74
Required to work in the weekend	
Yes	49.4
No	50.6
Required to work nightshifts	
Yes	48.71
No	51.29
Overtime	
Yes	50.89
No	49.11

Table 4: Summary Statistics for CETUS20 respondents

	Basic Demographics			
N	**1739**			
Female		49.02		
		Male	Female	Total
Age	18-24	16.01	14.27	15.16
	25-34	33.79	29.2	31.54
	35-54	42.09	47.69	44.84
	55-64	8.1	8.84	8.46
Education				
	No formal education	12.25	9.73	11.02
	Below Secondary	18.18	13.54	15.91
	Secondary	37.35	25.71	31.65
	Post Sec. & Above	32.21	51.01	41.43
Urban		46.6	63.67	54.99
Industry	Agriculture, fishing or mining	9.11	1.73	5.43
	Manufacturing	16.05	14.75	15.41
	Construction or utilities	17.79	0.35	9.1
	Retail or Wholesale	7.38	10.01	8.69
	Transportation and storage	13.23	0.26	6.77
	Accomodation and food services	3.25	2.42	2.84
	Information and communication	0.43	1.21	0.82
	Financial activities or real estate	1.08	1.64	1.36
	Education	5.42	26.4	15.87
	Health	1.52	15.62	8.54
	Other services	24.73	25.63	25.18
Occupation	Managers	3.07	5.1	4.08
	Professionals	8.38	35.64	21.88
	Technicians and Associate Professionals	9	8.07	8.54
	Clerical Support Work	2.45	9.55	5.97
	Services and Sales Workers	15.13	18.77	16.93
	Skilled Agricultural, Forestry and Fishery Workers	1.84	1.23	1.54
	Craft and Related Trades Workers	24.34	7.82	16.16
	Plant and Machine Operators and Assemblers	12.27	0.41	6.4
	Elementary Occupations	23.52	13.42	18.52

Table 5: Distribution of respondents by gender and type of employment and shares of jobs with specific non-monetary job attributes before and after the outbreak of the Coronavirus in March 2020

Type of Employment						
	Male		Female		Total	
	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID
Public Wage Work	14.62	12.67	35.04	32.85	24.63	22.57
Private Formal Wage Work	15.81	11.49	12.98	10.22	14.42	10.86
Private Informal Wage Work	52.77	38.61	39.82	24.01	46.42	31.45
Non-wage work	16.8	15.05	12.17	8.68	14.53	11.92
Unemployed		21.39		22.06		21.72
Inactive		0.79		2.19		1.48
Non-Monetary job attributes						
	Male		Female		Total	
	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID
Possibility to work from home	7.71	9.67	21.57	28.69	14.5	18.88
Part-time work	28.85	28.24	38.36	36.08	33.51	32.04
Flexible Hours	32.41	34.1	32.85	31.16	32.62	32.67
Work in weekend	36.76	37.91	31.22	30.94	34.05	34.54
Nightshifts	23.91	20.87	16.46	15.52	20.26	18.28
Overtime	21.74	19.34	22.38	20.66	22.06	19.98
	25% percentile		50% percentile		75% percentile	
	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID
Commute (minutes) - Male	15	15	30	30	60	60
Commute (minutes) - Females	10	14	30	30	45	45
Commute (minutes) - Total	15	15	30	30	60	60
Nature and Duration of Contract						
	Male		Female		Total	
	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID	Pre-COVID	Post-COVID
No contract	63.69	59.8	56.07	53.21	59.96	56.61
Less than 1 year	3.77	3.31	3.42	3.64	3.6	3.47
1-2 years	13.49	13.49	9.54	9.42	11.55	11.52
3 years	0.2	0.25	0.08	0.11	0.14	0.18
Greater than 3 years	0.99	1.27	2.44	3.32	1.7	2.26
Permanent	9.72	11.96	18.91	21.73	14.22	16.69
Not Applicable	8.13	9.92	9.54	8.57	8.82	9.27

Table 6: Composition of Workers who Changed or Exited Jobs, by Type of Employment in February (Percent)

	Changed Jobs			Exited to Non-employment		
	Males	Females	Total	Males	Females	Total
Public WW	8.33	7.69	8.11	7.14	7.72	7.56
Private Formal WW	14.58	30.77	20.27	14.29	8.13	9.88
Private Informal WW	60.42	53.85	58.11	71.43	67.07	68.31
Non-Wage Work	16.67	7.69	13.51	7.14	17.07	14.24
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Authors' calculations based on CETUS20.

Table 7: Transition Rates (in percent) of Workers Changing Jobs After the Outbreak of
COVID-19 in Egypt, Males and Females, 15-64 Years of Age

Post-COVID	Public WW	Private Formal WW	Private Informal WW	Non-Wage Work	Total
Pre-COVID					100
Public WW	50 %	0	50%	0	100
Private Formal WW	6.67%	20%	60%	13.33%	100
Private Informal WW	0	2.33%	88.37%	9.3%	100
Non-Wage Work	10%	10 %	50%	30%	100

Source: Authors' calculations based on CETUS20.

Table 8: Take up rate of the hypothetical offers

	Male	Female
Accept - Emp	38.68%	69.27%
Accept - Non emp	27.68%	61.00%

Table 9: Distribution of respondents by type of employment. on-the-job search and take-up of hypothetical offers

	Public Wage Work	Type of Employment Private Formal	Private Informal	Non-wage
Who is searching on-the-job?				
Male	11.28	14.54	54.6	19.58
Female	27.64	16.75	41.88	13.74
Total	18.01	15.45	49.37	17.18
Who is accepting the hypothetical offers?				
Male	25	15.13	44.74	15.13
Female	46.99	13.6	29.06	10.36
Total	38.78	14.17	34.91	12.14

Table 10: Conditional Logit Coefficient Estimations - Total Sample

	ALL - PreCOVID Coefficients	WTP	ALL - PostCOVID Coefficients	WTP	Δ
Percentage change in wage	0.353***		0.098***		
	(0.101)		(0.025)		
Job Change	0.070	0.198	0.294*	2.986	2.788
	(0.100)		(0.120)		
Less than a year contract	-0.081	-0.230	0.262	2.661	2.891
	(0.145)		(0.174)		
1-year Contract	-0.058	-0.166	0.179	1.820	1.985
	(0.131)		(0.161)		
≥3yrs Contract	-0.032	-0.090	0.192	1.947	2.037
	(0.129)		(0.152)		
Part-time (Less than 8 hours)	0.199*	0.564	0.233*	2.370	1.806
	(0.097)		(0.102)		
Part-time (More than 8 hours)	0.133	0.376	0.144	1.469	1.093
	(0.097)		(0.087)		
Possibility to work from home	0.158*	0.449	0.182*	1.851	1.402
	(0.068)		(0.081)		
Commuting time	-0.000	-0.001	-0.002*	-0.019	-0.017
	(0.001)		(0.001)		
Possibility to have flexible hours	0.061	0.172	0.162*	1.652	1.479
	(0.065)		(0.079)		
Required to work in weekend	0.014	0.040	-0.013	-0.133	-0.173
	(0.065)		(0.078)		
Required to work nightshifts	-0.254***	-0.718	-0.366***	-3.724	-3.006
	(0.072)		(0.086)		
Overtime	-0.049	-0.140	0.151	1.538	1.678
	(0.069)		(0.087)		
Public	0.713***	2.020	0.752***	7.648	5.628
	(0.116)		(0.125)		
Formal	0.043	0.121	0.296	3.013	2.893
	(0.135)		(0.155)		
N	6420		4660		

Table 11: Conditional Logit Coefficient Estimations - Exploring Heterogeneity

	(2) Males		(3) Females		(4) Ever Married Females		(5) Females with children	
	PreCOVID	PostCOVID	PreCOVID	PostCOVID	PreCOVID	PostCOVID	PreCOVID	PostCOVID
Percentage change in wage	0.336	0.111*	0.433***	0.068*	0.511***	0.061	0.448***	0.059
	(0.188)	(0.044)	(0.104)	(0.030)	(0.138)	(0.032)	(0.124)	(0.033)
Job Change	0.128	0.287	0.101	0.422***	0.051	0.370**	0.121	0.431**
	(0.183)	(0.259)	(0.104)	(0.118)	(0.124)	(0.137)	(0.134)	(0.151)
Less than a year contract	0.072	0.648	-0.212	-0.121	-0.172	0.069	-0.171	-0.026
	(0.241)	(0.348)	(0.157)	(0.180)	(0.176)	(0.201)	(0.193)	(0.225)
1-year Contract	0.064	0.363	-0.131	0.036	-0.126	0.213	-0.069	0.179
	(0.217)	(0.320)	(0.145)	(0.160)	(0.163)	(0.178)	(0.178)	(0.194)
≥ 3yrs Contract	0.177	0.563	-0.166	-0.075	-0.062	0.106	-0.048	0.107
	(0.223)	(0.317)	(0.139)	(0.154)	(0.153)	(0.167)	(0.169)	(0.181)
Part-time (Less than 8 hours)	0.182	0.138	0.232*	0.321**	0.240*	0.342**	0.256	0.312*
	(0.163)	(0.178)	(0.106)	(0.114)	(0.122)	(0.131)	(0.131)	(0.142)
Part-time (More than 8 hours)	0.093	0.122	0.205	0.139	0.203	0.149	0.245	0.134
	(0.161)	(0.168)	(0.109)	(0.092)	(0.123)	(0.106)	(0.135)	(0.115)
Possibility to work from home	0.202	0.243	0.056	0.028	-0.023	-0.060	-0.023	0.005
	(0.129)	(0.168)	(0.071)	(0.083)	(0.080)	(0.094)	(0.089)	(0.105)
Commuting time	0.001	-0.000	-0.004***	-0.005***	-0.005***	-0.006***	-0.005***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Possibility to have flexible hours	0.028	0.338*	0.085	0.006	0.088	0.018	0.086	0.070
	(0.109)	(0.145)	(0.072)	(0.083)	(0.081)	(0.091)	(0.088)	(0.100)
Required to work in weekend	0.097	0.157	-0.064	-0.047	-0.010	-0.002	0.019	-0.031
	(0.110)	(0.143)	(0.068)	(0.082)	(0.076)	(0.092)	(0.085)	(0.100)
Required to work nightshifts	-0.049	0.060	-0.411***	-0.632***	-0.417***	-0.610***	-0.409***	-0.604***
	(0.120)	(0.155)	(0.078)	(0.096)	(0.089)	(0.109)	(0.098)	(0.121)
Overtime	-0.026	0.352*	-0.105	-0.046	-0.102	-0.051	-0.125	0.018
	(0.118)	(0.169)	(0.074)	(0.090)	(0.084)	(0.103)	(0.093)	(0.112)
Public sector	0.656**	0.910**	0.611***	0.408***	0.628***	0.445***	0.588***	0.430**
	(0.235)	(0.303)	(0.119)	(0.123)	(0.130)	(0.133)	(0.141)	(0.144)
Formal	0.080	0.239	-0.121	0.201	-0.247	0.091	-0.219	0.049
	(0.218)	(0.311)	(0.149)	(0.158)	(0.169)	(0.175)	(0.179)	(0.192)
N	1868	1352	4552	3308	3652	2672	2984	2184

Table 12: Conditional Logit WTP Estimations - exploring heterogeneity

	(2) Males - WTP			(3) Females - WTP			(4) Ever married - WTP			(5) Females with Children - WTP		
	PreCOVID	PostCOVID	Δ	PreCOVID	PostCOVID	Δ	PreCOVID	PostCOVID	Δ	PreCOVID	PostCOVID	Δ
New Job/Position	0.27	2.58	2.31	0.10	6.23	6.13	0.23	6.02	5.79	0.38	7.26	6.88
Less than a year contract	-0.38	5.82	6.21	-0.34	-1.79	-1.46	-0.49	1.13	1.62	0.21	-0.44	-0.65
1-year Contract	-0.15	3.27	3.42	-0.25	0.53	0.78	-0.30	3.46	3.76	0.19	3.01	2.82
≥3yrs Contract	-0.11	5.06	5.16	-0.12	-1.10	-0.98	-0.38	1.72	2.10	0.53	1.80	1.27
Part-time (Less than 8 hours)	0.57	1.24	0.67	0.47	4.74	4.27	0.53	5.57	5.03	0.54	5.25	4.71
Part-time (More than 8 hours)	0.55	1.09	0.55	0.40	2.05	1.65	0.47	2.42	1.95	0.28	2.26	1.98
Possibility to work from home	-0.05	2.18	2.23	-0.05	0.41	0.45	0.13	-0.98	-1.11	0.60	0.09	-0.51
Commuting time	-0.01	0.00	0.01	-0.01	-0.08	-0.07	-0.01	-0.10	-0.09	0.00	-0.11	-0.11
Possibility to have flexible hours	0.19	3.04	2.85	0.17	0.09	-0.08	0.20	0.30	0.10	0.08	1.18	1.10
Required to work in weekend	0.04	1.41	1.37	-0.02	-0.70	-0.68	-0.15	-0.03	0.12	0.29	-0.52	-0.81
Required to work nightshifts	-0.91	0.54	1.45	-0.82	-9.35	-8.53	-0.95	-9.92	-8.97	-0.14	-10.18	-10.03
Overtime	-0.28	3.16	3.44	-0.20	-0.68	-0.48	-0.24	-0.83	-0.59	-0.08	0.31	0.39
Public Sector Work	1.31	8.18	6.87	1.23	6.04	4.81	1.41	7.24	5.83	1.95	7.24	5.29
Formal Work	-0.49	2.14	2.63	-0.48	2.97	3.45	-0.28	1.47	1.75	0.24	0.82	0.58

List of Figures

Figure 1: Employment State Post-COVID, Males and Females Employed in February 2020, 15-64 Years of Age
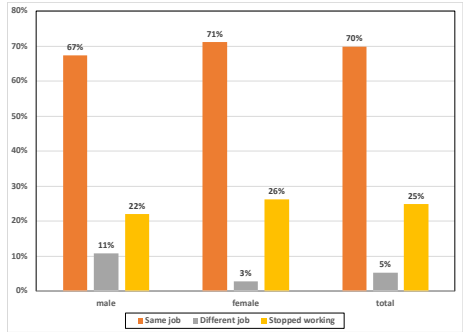
(a) All sample
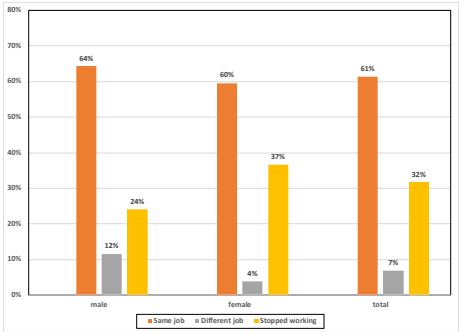
(b) Excluding Public sector employees in Feb 2020

Source: Authors' calculations based on CETUS20.

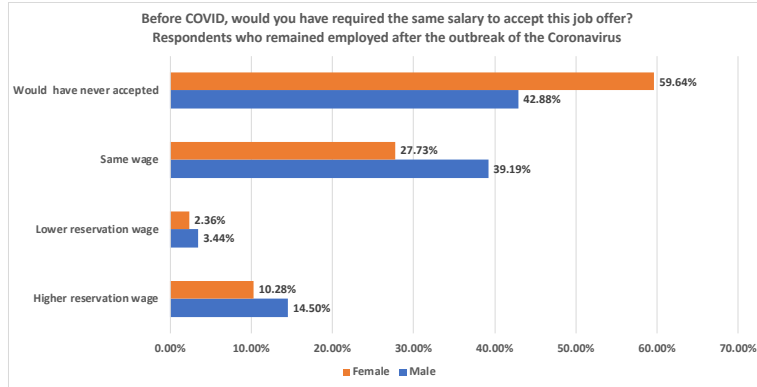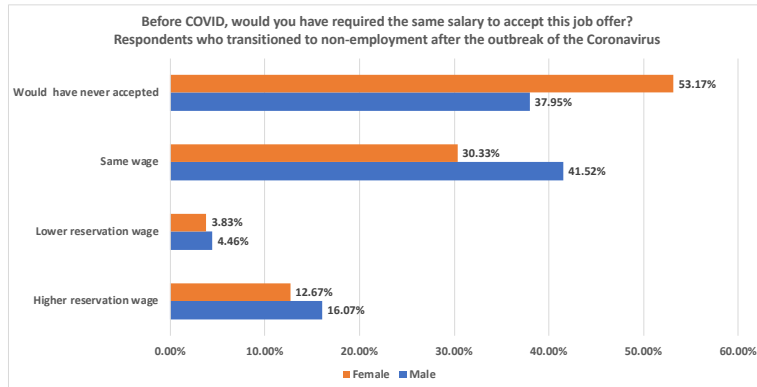Figure 2: Employment State Post-COVID, Males and Females Employed in February 2020, 15-64 Years of Age

(a) Post-COVID Employed

(b) Post-COVID Non-employed

Source: Authors' calculations based on CETUS20.