Decent Work in Crowdwork: Gendered Takeaways from an Online Survey in the Philippines

Connie Bayudan-Dacuycuy and Lora Kryz Baje

Philippine Institute for Development Studies

Decent Work in Crowdwork: Gendered Takeaways from an Online Survey in the Philippines

Connie Bayudan-Dacuycuy
Lora Kryz Baje

PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

March 2021

Abstract

Platform work has the potential to help women reconcile the age-old conflict between unpaid work and market work. It also has the potential in helping achieve SDG targets on women empowerment and gender equality. However, there is a degree of precariousness in platform work, one that is reminiscent of informal work. Concerns on whether platforms are new vehicles of delivering old inequalities are legitimate. Thus, there is a need to analyze the issues in this emerging type of work to prevent the widening and deepening of existing inequalities, to ensure decent work in platform work, and to ensure that the work is inclusive and sustainable. This paper is an attempt towards that direction, although the effort is minuscule relative to what is warranted by a new work setting that is still evolving. It analyzes the experience of Filipinos in crowdwork, a platform work that poses challenges in the enforcement of national labor laws because transactions typically cross borders.

Key results using an online survey include the following: 1) Women are more likely to participate in platform work due to considerations of income, housework, and care economy. 2) Platform work is done alongside non-platform work, which is the source of security benefits and entitlements of platform workers. 3) Past experience on the platform is an important factor in the workers' current platform involvement. 4) The time spent on platform work peaks at minimal care work. Beyond 3 hours of care work, the time spent on platform work is zero. 5) There is no gendered difference in the compensation per hour once personal and platform attributes are controlled for. and 6) The compensation per hour received by the respondents is on par with the rate of platforms that are known for outsourcing routine tasks (microtasks). It is higher relative to the compensation prevailing in the country.

Given the flexibility of platform work, as highlighted by women being more likely to participate into the work, and its potential for achieving gender equality, as highlighted by the absence of gendered difference in the compensation per hour, key takeaways are provided to initiate conversations on national programs and initiatives that ensure a sustainable and decent work on platforms.

Keywords: Crowdwork, gender, social protection, skills development, Philippines

Table of Contents

List of Tables

List of Figures

List of Appendix

Decent Work in Crowdwork: Gendered Takeaways from an Online Survey in the Philippines*

Connie Bayudan-Dacuycuy and Lora Kryz Baje[1]

1.   Introduction

Despite gender parity in the education front, critical gender gaps in the Philippines remain. Women's labor force participation is currently the lowest in Southeast Asia[2]. In 1990, women's labor force participation in the Philippines is 47.244%[3]. It reached its highest in 2014 at 49.524% and is around 46.195% in 2020. Based on the 2019 LFS data, around 51% of women at least 25 years old are working, a figure that is substantially lower than the men's 81%. This relatively low figure can be attributed to housework, with around 74% of women expressing household and family duties as main reasons for not looking for work (compared to that of men at around 15%).

Evidence indicates that gender pay gap exists (Tandrayen-Ragoobur and Pydayya 2015, Kulich et al. 2011, Blau and Kahn 2003) although some have indicated a narrowing gap (Weichselbaumer and Winter-Ebmer 2005, Jarrell and Stanley 2004, Stanley and Jarrell 1998). There is also a gendered difference in the quality of jobs with women being more likely to be in low quality or vulnerable employment and thus, with fewer opportunities for decent work and social protection (ADB 2013). In the Philippines, evidence of gender pay gap favoring men is observed (Briones 2018, Valientes 2015, Sakellariou 2006) and representation at the top-level managers, senior managers/executive role holders, and middle managers is low (MBC 2019). However, there is also evidence of pay gap in favor of women (Chow et al. 2019, David et al. 2018).

Recently, there are ICT developments like the digital labor platforms that can potentially address the age old issue of gender pay gap and the long standing conflict of care economy and market work. Platform work offers flexibility that can help achieve the SDG targets on women empowerment/gender equality and on the eradication of poverty. Filipinos have quickly appreciated platform work, with evidence pointing to the largest numbers of online jobseekers being located in India and the Philippines (UNCTAD 2017) and to around 12% oversupply of Filipino workers in one major platform alone (see Graham et al 2017).

At the micro level, there is still a dearth of research that document the issues and challenges faced by Filipino workers in platform work. This can be attributed to the lack of data, which is understandable given the relative infancy of platform work in the country and stakeholders are only beginning to understand the scope and complexity of such work arrangement. However,

[2] Indonesia (53%), Lao PDR (77%), Malaysia (51%), Singapore (62%), Thailand (59%), and Vietnam (73%).
[3] % of female population 15 years old and above. Based on WDI-World Bank, modeled ILO estimate. _https://data.worldbank.org/indicator/SL.TLF.ACTI.FE.ZS?locations=PH_, retrieved January 30, 2021

evidence in other countries abound, which shows the positive and negative aspects of this work arrangement.

On the positive side, studies have shown that participation in platform work has resulted in women's greater participation in intrahousehold decisions (Chaudhary 2020, Kuek et al 2015). Some also perceive this new work arrangement to be an avenue for equalizing gender pay gap (Hyperwallet 2017).

On the negative side, social protection (Behrendt and Nguyen 2018, Forde et al 2017, Berg 2016), skills development (Kuek et al 2015), representation (Graham et al 2017a, Heeks 2017, Schmidt 2017, Berg 2016), and various inequalities resulting from the platform's substantial control of information among other things (Choudary 2018, Berg et al 2018, Heeks 2017, Schmidt 2017) have been highlighted. Gender issues include high quit rates among women (Hunt and Samman 2019, Farrell and Greig 2016), work intensification for men (Lott 2014), pay gap (Barzilay and Ben-David 2017), and discrimination along gender and racial divides (Berg et al 2018, Beerepoot and Lambregts 2014).

Given these, concerns are raised on whether these platforms exacerbate existing gender issues and on whether platforms are new vehicles of delivering old inequalities. Precarious work had been a defining feature of work in the early Industrialization Revolution when piecemeal work and payment per task were the norm (Berg et al 2018; Churchill and Craig 2019). Platform work is based on contracts and workers do not have guarantees of secure income flow and social protection. This makes platform work most similar to informal work, the precariousness of which is substantially observed in developing economies and greatly experienced by women (Berg et al 2018). These raise important questions: *What can be done to realize the full potential of platform work in achieving women empowerment and gender equality? How can the country ensure that inequalities do not deepen and widen? How can it ensure decent work? How can platform work become sustainable?*

Given that platform work is still at its nascent stage, providing answers to these questions poses some challenges mostly because work under this setting is heterogeneous in scope and complexity and there is still no consensus on definition and methodologies for data collection. A good starting point, however, is to leverage purposive surveys to characterize workers and the work that they do. This enhances the visibility of issues and initiates the conversation on the necessary steps to ensure that policies and programs adjust to new forms of work arrangement. National initiatives are crucial especially when work crosses borders, as in the case of crowdwork, and the enforcement of national labor laws designed to ensure decent work is difficult.

This paper aims to remain true to the gender and development approach, one that seeks for both men and women to equally reap the fruits of development. Thus, it analyzes the issues and challenges encountered by both men and women and highlights, whenever possible, similarities and differences. Doing this makes for a holistic analysis that can direct policies and programs towards an inclusive and sustainable decent work.

This paper leverages the Online Survey of Market and Non-Market Work conducted from May-December 2020, mostly as a rider activity to the DICT *digitaljobsPH* training. The online survey employs purposive/non-random sampling due to the challenges in establishing a sampling frame for this type of workers (i.e. They are not as visible as other observation units like households, firms, female workers, or students.). Thus, the paper merely intends to

characterize and results generated from the analyses are true only for the online survey samples. These caveats hold even as we attempt to analyze outcomes conditional on some workers' and platform work's attributes. Despite the non-representativeness of the online survey samples, a limitation acknowledged elsewhere (see for example Churchill and Craig (2019)), some of the findings are consistent with the broad findings of studies abroad that used nationally-representative surveys.

This paper is organized as follows: Section II reviews and discusses some terminologies/definition and gendered issues in platform work. Section III discusses the content of the online survey, section IV characterizes the workers and the work on the platform, and section V summarizes and provides some ways forward.

2.   Review of related literature

A. Digital work: Some terminologies and definition

The advancements in ICT have paved the way for aggregator companies and digital platforms to bring together markets for tangible (e.g. Amazon, eBay, Etsy) and non-tangible goods (e.g. Netflix, Spotify) and markets for labor (e.g. Grab, Food Panda, Upwork, Crowdflower, Amazon Mechanical Turk (AMT)). Of these platforms, that of labor has been the subject of scrutiny because of issues related to social protection, skills development, and collective voice, among other things. Workers are generally considered independent contractors or self-employed so they do not enjoy social protection and entitlements. Platform work is relatively fluid and are affected not only by fluctuations in demand (Chaudhury 2020) but by the potential oversupply as well (Graham et al 2017a). On the upside, people have now access to economic opportunities that the local labor market cannot provide and workers are able to enjoy flexible work hours, self-supervision, and the reduction of financial and health costs associated with travel and road congestion.

Since the work done on the platform is heterogeneous in scope, market, and complexity, the research community has yet to agree on how to call this new work phenomenon (see Figure 1). One terminology, however, that appears to get enough traction is platform economy, the key feature of which is the role of platforms in the online and offline delivery of services (Forde et al 2017). Under this broad terminology, some researchers use crowdwork to refer to work that is transacted and delivered online, and on-demand work to refer to the delivery of services that is application-enabled and needs interaction between consumers and workers (Hunt et al 2017; Graham et al 2017b). In principle, crowdwork is the digitization of both work and the organization of work while on-demand work is an example of digitization of the organization of work (Heeks 2017, Huws 2017). Crowdwork is further divided into tasks that are clerical, which are called either microtask (Hunt et al 2017; Graham et al 2017b) or microwork (Kuek et al 2015), and tasks that require specialized skills, which are called either macrotask (Hunt et al 2017; Graham et al 2017b) or online freelancing (Kuek et al 2015). Another definition touches on markets, with gig work and cloud work referring to work that is bound to a specific location, and to work that can be done via the Internet, respectively (Schmidt 2017).

Gig economy is also another terminology used to refer to jobs that appear to be in the same breath as crowdwork. However, gigs, or short or intermittent work engagements, are not necessarily mediated by platform nor delivered/transacted online. In addition, gig economy carries with it a negative connotation, as gigs are often associated with precariousness and the

absence of social protection (see Forde et al 2017). Collaborative economy or sharing economy, while frequently used to refer to the monetization of idle assets/resources, is also used by some researchers to refer to household or professional services (see Vaughan and Davario, 2016). On-demand work (as in Hunt et al (2017); Graham et al (2017b)) or gig work (as in Schmidt (2017)) can be classified under this typology.

Figure 1: Economic activities and terminology in labor platforms
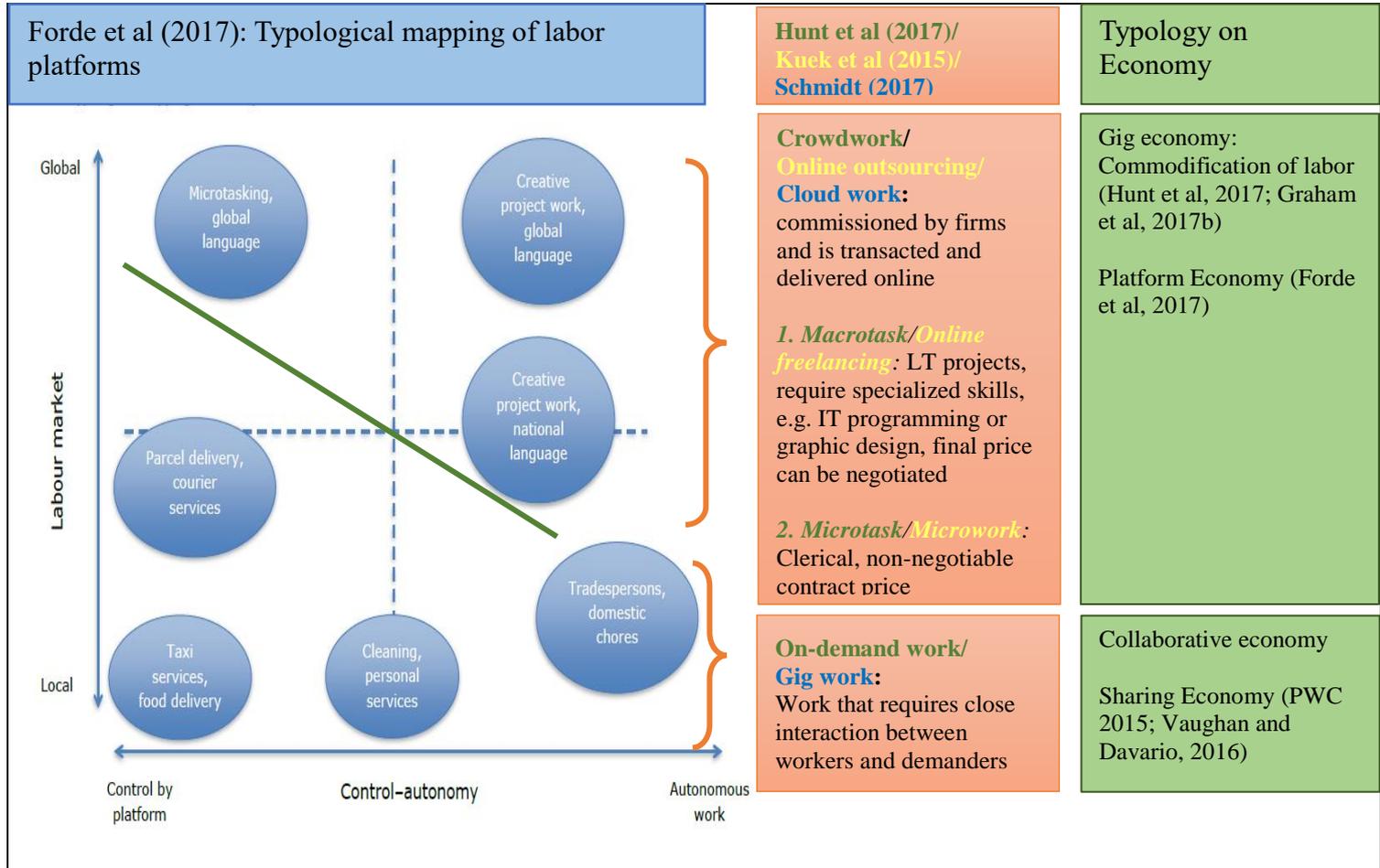
Source: Compilation by Bayudan-Dacuycuy et al (2020a) based on Kuek et al (2015), PWC (2015), Vaughan and Davario (2016), Forde et al (2017), Hunt et al (2017), Schmidt (2017), and Graham et al (2017b).

B. Coverage of the paper: Platform work and crowdwork

Based on these definitions and terminologies, this paper adopts the term platform work to refer to the broader work arrangement covered in the study. Microtask and macrotask, terminologies under crowdwork, are also used to refer to the types of work done on the platform.

How does crowdwork begin? Barzilay and Ben-David (2017) have documented that potential workers register into the platform by creating a profile containing information on their skills and rate per hour. Firms post jobs and screen and interview potential workers. Once an agreement is reached, workers sign the contract and execute the tasks. The platform pays the workers in full after completion. When payment is per hour, a surveillance software monitors the workers' movements in the space[4].

---

[4] *https://voxeu.org/article/working-conditions-digital-labour-platforms*

Almost all platforms have rating and review systems designed for firms to assess the quality of output/services. These ratings form part of the worker's reputation and determine workers' future engagements (Heeks 2017; Schmidt 2017) although these are not transferrable to other platforms (Forde et al 2017). Platforms also use algorithms not only to assign tasks but to reject outputs as well (Schmidt 2017).

C. Overarching issues in platform work

Platform work may be new due to the role of technology and innovation but the precariousness involved is not. Platform work is based on contracts and workers do not have guarantees of secure income flow and social protection. This makes platform work most similar to informal work, the precariousness of which is substantially observed in developing economies and greatly experienced by women (Berg et al 2018). Misclassifying workers to shift the risks to workers is a practice prior to the platform work (Chaudhury 2020) and is a throwback to the early Industrial Revolution when piecemeal work and payment per task were the standard (Berg et al 2018; Churchill and Craig 2019).

How these old practices are facilitated and how work is organized are new, however. Jobs are broken down into simple tasks that platforms sell to firms/clients who seek to benefit from the lower cost of labor due to labor arbitrage (Berg et al 2018). More importantly, platforms use algorithmic management[5] to save on the costs associated with the management of human resources and tasks, quality control, and review/rating systems (Heeks 2017). Algorithmic management has five characteristics according to Möhlmann and Zalmanson (2017) (cited in Berg et al 2018, p.9), namely, 1) continuous tracking of workers' behavior; 2) constant performance evaluation of workers from client reviews; 3) the automatic implementation of decisions, without human intervention; 4) workers' interaction with a "system" rather than humans, depriving them of opportunities for feedback or discussion and negotiation with their supervisor, as would be typically the case in offline jobs; and 5) low transparency. This algorithmic management has resulted in an increasing opacity in platform work, one that lacks transparency in the assignment of tasks, blocking/suspending of accounts, and the rejection of outputs (Berg et al 2018, Forde et al 2017). Rejection of outputs has important ramifications on securing future work on the platform.

There are also asymmetries on the platform that give rise to structural inequalities, namely, value asymmetry, risk asymmetry, resource asymmetry, information asymmetry and power asymmetry (Heeks 2017). Value asymmetry takes place because benefits accrue most to platforms and least to clients. Risk asymmetry occurs because all costs are borne by workers, including training investments, production costs and social protection coverage, while resource asymmetry takes place due to the differences in the available resources along racial, gender and geographic divides. Information asymmetry stems from the fact that platforms manage all information and controls those that will be available to the markets (Heeks 2017; Schmidt 2017). This skewed distribution of information naturally gives rise to power asymmetry that bestows the least power to workers. The platforms' ratings system, for example, is one-sided with only the clients/firms able to rate the quality of outputs/services provided (Berg et al 2018). Moreover, the review/ratings are not transferrable, which can result in the workers' dependence on a specific platform (Choudary 2018).

---

[5] Defined by Lee et al (2015, p. 1) as a setting in which "human jobs are assigned, optimized, and evaluated through algorithms and tracked data".

Thus, the central issue in platform work revolves around the concept of decent work, which articulates strategic objectives related to rights at work, social protection, social dialogue, and productive and freely chosen work (ILO 1999). ILO (2013) has provided 11 broad indicators to guide statistical and legal frameworks[6] which Heeks (2017) has summarized and contextualized in the digital gig economy (see Table 1). Of these three domains, the employment context is the encompassing domain under which the employment domain and work condition are subsumed. In the context of platform work (or digital gig economy in the words of Heeks (2017)), employment context includes not only those previously articulated by ILO (1999) but mechanisms for dispute resolution, platform governance, and platform accountability as well.

Table 1: Domains and categories of decent work

Standard employment (based on ILO 2013)	Employment in digital gig economy
Employment Context - Work That Should be Abolished - Social Security - Social Dialogue, Employers' and Workers' Representation - Economic and Social Context for Decent Work	**Employment Context** - Social Protections (Provision, Portability, Contributions) - Freedom of Association - Social Dialogue/Collective Bargaining - Platform Governance - Accountability - Other Legislation and Rights
Employment - Employment Opportunities - Combining Work, Family and Personal Life - Stability and Security of Work - Equal Opportunity and Treatment in Employment (- Dignity and Respect at Work)	**Employment** - Employment Opportunities - Career Development - Stability of Work - Employment Status - Discrimination - Respect inc. Privacy and Dispute Resolution
Work Conditions - Adequate Earnings and Productive Work - Decent Working Time - Safe Work Environment	**Work Conditions** - Adequate Earnings - Work Process - Working Hours - Health & Safety

Source: Heeks (2017)

Skills and career development

Similar to workers in standard work setting, platform workers need to demonstrate a certain knowledge or expertise to secure jobs on the platform. Necessary skills in platform work are also the same skills needed in other work arrangement. These include hard skills like numeracy, literacy, writing, Internet literacy, and basic IT skills, and soft skills like time management and interpersonal and communication skills (Barnes and Green 2015). However, workers bear the costs of training and learning investments all throughout their platform stint to sustain work and remain competitive. In addition, there appears to be a high barrier to entry for macrotasks/online freelancing with the majority of the workers possessing at least a tertiary degree (Kuek et al 2015).

On the positive side, skills and experience obtained from the platform work can be transferred to other work arrangements (D'Cruz and Noronha 2016, Barnes and Green 2015). In terms of career development, majority of the workers view platform work as a stepping stone to non-

---

[6] Includes employment opportunities, adequate earnings and productive work, decent working time, work-life balance, work that should be abolished, stability and security of work, equal opportunity, safe work environment, social security, social dialogue, and economic/social context.

platform work although issues like unwarranted rejection of outputs, discrimination, work instability, absence of grievance mechanisms, among others, have contributed to workers opting out of the platform work (Heeks 2017).

Social protection

Platform workers are classified as contractors or self-employed and has no employer-employee relationship (Hunt et al, 2017). Thus, they do not have the same entitlements that workers in the standard work arrangement enjoy. This is pronounced in crowdwork, with one study indicating that only around 60% and 35% were covered by health and had a pension plan, respectively (Berg et al 2018) and another study covering five major platforms in 2017 indicating that around 36% were subscribed into a personal pension, while 70% could not access maternity, childcare, and housing benefits (Forde et al 2017). Often, platform work is combined with other forms of employment that provide platform workers protection and entitlements (Berg et al 2018, Huws et al 2017, Berg 2016) although a proportion of platform workers treat platform work as their primary source of income (Behrendt and Nguyen 2018, Forde et al 2017, Berg 2016) with the proportion going as high as 56% (Berg et al 2018).

Unlike in crowdwork where transactions cross borders and platforms may not be located in the workers' country of residence, on-demand workers may have better social protection coverage since platforms need to access domestic physical infrastructures to operate. Thus, they are subject to local rules and regulation. For example, accidental death and disability insurance and training are offered to care providers in South Africa and Kenya (Hunt et al 2019).

Collective representation

Owing to the nature and the mode of delivery of work on the platform, workers are isolated from one another and forming a group of heterogeneous workers who likely view each other as competitors can be a challenge. However, there are available forums and group discussions (e.g., freedom of associations) that workers turn to for advice in navigating the systems on platforms, for hacks to quickly secure best-paying tasks, and identify unscrupulous clients (Berg et al 2018, Kuek et al 2015).

Unlike in standard work setting that provides for workers to form groups, there are no formal mechanisms (e.g., social dialogue and collective bargaining) that negotiate on behalf of the platform workers and no mechanisms to resolve disputes and redress grievances (Graham et al 2017a, Heeks 2017, Schmidt 2017, Berg 2016). The lack of collective representation and collective voice is a critical issue in platform work due to asymmetries in power and information. Platforms can delist workers, and they exert substantial control on the distribution of pay and incentives (Chaudhury 2020) and they control information on who the clients are, how much the clients are willing to pay, and what the purposes of the tasks are (Bergvall-Kareborn and Howcroft 2014). In addition, the platforms' algorithmic management can result in the rejection of outputs, and workers have no avenues to contest the rejection or to gather feedback to improve their work. Some crowdworkers from the Philippines, Bangladesh, Indonesia, and Pakistan have articulated issues such as getting a failing mark even after following the work requirements/specification, time-bound outputs without any rooms for revision, and unscrupulous firms who simply did not want to pay (Bayudan-Dacuycuy et al 2020a). Rejections, especially those that are not justified, are unfair since not only are workers not paid for their efforts, but these may adversely affect future platform engagements as well (Berg et al 2018).

D. Gendered issues and challenges in platform work

Flexibility

Flexibility is one of the key features of platform work which can be viewed either as employer-driven, in which complex tasks are unbundled into numerous simple tasks at lower costs, or as worker-driven in which work is performed at the worker's own pace and time (Hunt et al 2019; Hunt and Samman, 2017; Berg 2016). The latter has drawn certain segments of the population to participate in this new work arrangement. It offers young generation various economic opportunities while pursuing other interests such as schooling, travel, and leisure. They are technologically and networking adept group of workers who are familiar with the tools and resources needed in platform work. Indeed, some studies show that the mean age of crowdworkers in the US and India is between 28 and 33 years old (Berg et al 2018).

It also offers women economic opportunities even as they perform care work and housework. However, a consensus on which gender is present more on the platform is yet to be established. There are studies that show men from developed economies participate more in the platform economy (Hunt and Samman 2019, Farrell and Greig 2016, Kuek et al 2015). In developing economies, in general, only one of five workers are women (Berg et al 2018) although more women are on AMT in the US, a platform specializing in routine tasks (Kuek et al 2015, Ipeirotis 2010, Ross et al 2010). More men are AMT and Crowdflower workers in India where platform work is considered a primary source of income (Berg et al 2018) although there is evidence that more women in the age groups 36-45 and 46 above have performed platform tasks in 2017 (Berg et al 2018).

There are others that show male and female workers to be equally distributed (Chaudhury 2020, Barzilay and Ben-David 2017, Forde et al 2017). However, there are jobs (such as customer service, administrative and support, translation, writing, and sales/marketing) for which women outnumber men while there are jobs (such as engineering and architecture, data science and analytics, and information technology and networking) for which men outnumber women (Churchill and Craig 2019; Barzilay and Ben-David 2017).

Several studies have raised issues on whether flexibility is indeed an advantage of platform work. OECD (2017), for example, has articulated that flexibility depends on the nature of the platform work: whether the work is voluntary or not, is associated with more or less autonomy, and is paired with more or less job security. Indeed, evidence points to platform workers combining platform work with other forms of employment (Berg et al 2018, Huws et al 2017, Berg 2016) and to some workers on more than one platform and are engaged in other types of employment, largely in the informal economy (Hunt et al 2019). In the case of on-demand care economy workers in South Africa and Kenya, flexibility is limited by clients since they determine the location and timing of bookings (Hunt et al 2019).

In addition, greater work autonomy resulting from flexibility may lead to overtime and work intensification for men (Lott 2014) and may result in greater stress due to increased working hours that interfere with personal life (Graham and Woodcock 2018, OECD 2017). Some studies in high-income economies already indicate problems of isolation and stress among crowdworkers (Graham et al 2017b, Kuek et al, 2015, Chen, 2014). The evolution of platforms into arbitrators (Beerepot and Lambregts 2017) may also decimate the benefits of flexibility. These platforms require the exclusive service of workers and exercise significant

control (Kaganer et al 2013), which can have implications for the health and well-being of workers.

Economic empowerment

In addition to flexibility, evidence also shows that income is a key motivation to platform work participation. This is true in Australia although gendered patterns are observed with 60% and 30% of men and women citing income as the motivation and with another 30% of women citing flexibility to be a factor (Churchill and Craig 2019). Participation in platform work has resulted in women's greater participation in intrahousehold decisions in India (Chaudhary 2020, Kuek et al 2015). There is also a positive perception of gig work among the 2000 female gig workers surveyed in the United States, with 86% percent of women believing that the work presents opportunities that equalize pay differences between men and women (Hyperwallet 2017).

Hourly rate and other work outcomes

Despite its flexibility and its potential to boost women's empowerment, gender-related issues remain. These include the high quit rate of platform workers, with women more likely to drop out of the online platform economy than men (Hunt and Samman 2019, Farrell and Greig 2016). There is also evidence of gender pay gaps. Women freelancers earn 84% of the average hourly rate of men freelancers across all fields (Payoneer 2020), female workers in Upwork charges only 74% of the male's median asking price (Foong et al 2018), and the women's average hourly rate is 37% lower than those of men in a US crowdwork platform (Barzilay and Ben-David 2017).

Evidence that relates the gender pay gap to the inability to negotiate has been documented (Dubey et al 2017). Among Uber drivers in the United States, a 7% gender earnings gap has been reported, which can be attributed to returns to experience, a pay premium for faster driving, and willingness to drive in areas with higher crime rate (Cook et al. 2018). There are some studies, however, that show the pay gap to be statistically insignificant once education, experience, and geographical location are accounted for (Berg et al 2018) and that men and women's total earning is similar when the total number of worker hours are considered (Foong et al 2018).

Analysis of the rating/review systems, a feature of platforms designed to evaluate the quality of outputs/services, also show some bias along racial and gender lines. For example, workers in Fiverr perceived to be black men receive fewer reviews and lower ratings than other men, while workers perceived to be black women significantly get fewer positive adjectives (Hannák et al 2017). In addition, there are job postings where men are more preferred than women (Chaudhury 2020, Churchill and Craig 2019, Beerepoot and Lambregts 2014) and women evade this bias by using usernames that are gender neutral (Hyperwallet 2017).

Pay difference according to worker's location is also observed, with crowdworkers from North America, Europe, and Central Asia earning more than those from Africa and the Asia Pacific (see Berg et al 2018) and workers from non-western economies receiving lower compensation in the online work (Beerepoot and Lambregts 2014). This observed pay difference can partly be attributed to some form of discrimination, with workers from developed economies getting high-paying jobs and those from developing countries doing repetitive and menial tasks (Berg et al 2018). It can also be attributed to the oversupply of labor on the platform. Graham et al (2017), for example, have shown that in one major platform alone, only 12% of the potential

workforce are successful workers while 12% of the oversupply are coming from the Philippines. The fluidity of markets can result in underbidding and race-to-the-bottom practice among workers. It can also result in workers seeking for multiple work or longer hours, which can decimate the flexibility advantage of platform work. This is especially true for beginners who have yet to establish their work portfolio and platform credentials. In relative terms, however, platform workers from developing countries are earning 10 to 20 times higher than the domestic minimum wage while those in the global North are paid around the minimum wage (Heeks 2017).

Digital divide

Access to technology is a key ingredient to entry in the platform economy. Women's participation in this economy may be hampered due to the gendered digital divide (Bastagli and Hunt 2020, Mawii 2019). Indeed, The Mobile Gender Gap Report 2020 of GSMA reveals that "54% of women in low- and middle-income countries now use mobile internet and the gender gap is narrowing. Women are 20% less likely to use mobile internet than men, a decline from 27% in 2017." (Rowntree 2020, p. 3) Despite this progress, the report mentions that the gender gap remains in low-income and middle-income countries. Moreover, OECD (2018) reports that the divide in internet use has worsened between developed and developing countries from 2013 to 2017.

As digital technologies provide significant economic opportunities, gendered issues have surfaced on the quality and quantity of employment, which are results of gendered differences in access to technology and of gendered differences in technological skills (Bastagli and Hunt 2020, Otober 2017). In the Philippines, however, broad patterns from the 2019 National ICT and Household Survey indicate that there is an equal distribution of the number of computer users between men and women although the percentage is low at around 24%. More women are cellphone users than men (79.7 versus 73.7%).

3.   Online survey of market and non-market work, May-December 2020

A. Survey implementation and limitation

The dataset used in this study is collected using the Online Survey of Market and Non-Market Work rolled out from May to December 2020. This online survey is a collaboration between PIDS and the ICT Literacy and Competency Development Bureau (ICT-LCDB) of the Department of Information, Communication, and Technology (DICT). Under its *digitaljobsPH* program, the latter has been regularly conducting training to equip the Filipinos with ICT-related skills. The *digitaljobsPH* program aims to assist economically-disadvantaged areas and rural communities through the creation and promotion of ICT-enabled jobs.

Pandemic notwithstanding, the ICT-LCDB has offered learning prospects to improve the skills necessary for Filipinos to take advantage of economic prospects online. In May 2020, it has conducted online training with the primary aim of providing learning opportunities at the time when Metro Manila was under the enhanced community quarantine (ECQ). From April 16-27, 2020, it has conducted the affiliate marketing training and social media marketing training. The affiliate marketing training was a 20-hour online training that aim to help participants earn income through the promotion of goods and services. Participants were required to have a working knowledge in website development/design and search engine optimization. The social

media marketing training, on the other hand, was a 14-hour online training in the use of social media as a marketing tool. Participants were required to possess basic knowledge of social media channels. From May 11-22, 2020, the ICT-LCDB has conducted a digital marketing training, which was opened to the public although participants were required to be computer literate.

As part of its *digitaljobsPH* program, the DICT has implemented a *digitaljobsPH* Training Project that aims for the countryside to strengthen skills necessary in the online freelancing industry. Its first phase, implemented in 2017, became a venue for collaboration for various Micro, Small and Medium Enterprises (MSME). Trainees underwent practical exercises and created digital campaign strategies for the MSME. Through the project, 381 websites were developed for MSMEs and were able to generate more than P10 Million in revenue (DICT 2020). Its second phase aims to offer courses[7] that can help interested individuals in their pursuit of online work and MSME's use of e-commerce. It is being implemented in partnership with the Local Government Units and the Department of Trade and Industry. The DICT plans to conduct a total of 75 *digitaljobsPH* training nationwide. From August to December 2020, the DICT has conducted training in 19 sites (see Table A1 in the appendix).

The online survey is a rider activity to the DICT online work training initiatives. The purposive/non-random probability sampling is the more feasible option for data collection Currently, it is still challenging to establish a sampling frame for this type of workers (e.g. They are not as visible as other observation units like households, firms, female workers, or farmers.). Thus, the paper does not intend to make inferences about the population. Rather, it aims to characterize the market work (platform and non-platform work) and non-market work (care work and housework) and describe issues, challenges, and motivations related to platform work. Any analysis using the survey result is descriptive and only holds for the sample on hand. Despite the non-representativeness of the sample, however, findings are generally consistent with the broad findings of studies abroad that used nationally-representative surveys.

B. Survey content

There were three periods covered in the online survey: 1) one month prior to the enforcement of the ECQ (February 14, 2020 to March 14, 2020, referred to as either period 1 or before the ECQ below), 2) the month when the ECQ was enforced (April 1, 2020 to April 30, 2020, referred to either period 2 or during the ECQ below), and 3) the last 12 months prior to the ECQ (March 14, 2019 to March 14, 2020, referred to as either period 3 or past 12 months below). Some of the modules, especially those pertaining to the time spent on market and non-market work, contain information for these three periods.

Basic Information Module – This module collected data on the respondent's sex, age, household headship, highest educational attainment, and marital status. It also collected data on house/lot ownership and the number of household members broken down into three components: total number of people, total number of children ages 18 years old and below, and total number of children ages 6 years old and below. Information on economically dependent individuals in the household and the geographical location of the current place of residence (region, province, city/municipality, and barangay) were also collected.

---

[7] Include Digital Marketing/e-Commerce, Web Development, Social Media Marketing and Advertising, Search Engine Marketing and Advertising, Content Writing, Graphic Design, and Virtual Assistance.

DICT-Sponsored Training in Platform Work Module – This module gathered data on the training in platform work that were attended by the respondent. It also collected information on training providers and the respondent's reason for attending the training.

COVID-19 Related Issues Module – This module collected information on the effects of COVID-19.

Social Protection, Financial Security and Expenditures Module – This module collected information on respondent's social security, financial assets, household income and expenditure in the last six months. Information on other internet-based sources of income in the same period such as online-selling, ride-sharing, room-sharing, and cryptocurrency trading were also collected.

Housework and Care Work in General Module – This module gathered data on non-market activities, such as child care, elderly care, and housework. Respondents were asked for information pertaining to the average number of hours, days, and weeks spent in housework and care work before and during the ECQ.

Housework and Care Work Simultaneously Done with Platform Work Module – This module collected data on non-market activities simultaneously done with platform work. Respondents were asked for the average number of hours, days, and weeks spent in housework and care economy in each of the period.

Platform Work in General Module – This module collected the following data: considerations for doing platform, whether the platform work is a primary source of income, satisfaction, challenges in platform work, percentage of approved output, recommendations on how the government can help platform workers and skills the respondent needed to develop to gain more projects. Respondents who were not engaged in a platform work were asked for their reasons of non-involvement.

Major Platform Work Module – This module collected information on the major platform work, defined as one with the biggest contract price, in periods 1 and 3. The information collected included the following: the type of output/activity of the platform work, major factor in choosing this specific platform work, nature of platform work, the average number of hours spent in platform, the estimated wage per hour, if the respondent negotiated for the contract price and satisfaction with the contract price.

Non-Platform Work Module – This module collected information on the respondent's non-platform work before the ECQ. Data collected included the following: nature of their employment, type of worker, occupation, monthly basic net pay, willingness, and availability to work more hours, and preference between platform and non-platform work given willingness and availability. Respondents were also asked for their average number of hours, days, and weeks spent in non-platform work in periods 1 and 2.

C. Survey respondents and attributes

The online survey administered to participants during the ECQ training yielded 570 completed responses while the online survey administered to participants of the 2nd phase of the *digitaljobsPH* program yielded 216 completed responses (see Table A1 in the appendix). In addition, the PIDS also rolled out the online survey from May 5-9, 2020 to cover some of the

participants of the first phase of the DICT's *digitaljobsPH* Program. There were around 229 participants who were contacted and 55 have completely filled-out the survey form. An additional 14 respondents were recruited based on a snowball sampling technique. Altogether, the May to December 2020 online survey yielded 855 completed responses.

Work portfolio before and during the ECQ

Out of the 219 respondents with platform work, around 70% were women while out of the 333 respondents who have ever done platform work (periods 1 and 3) around 69% were women. The latter is close to the estimate of Payoneer (2019) which shows the average share of female freelancers in the country at 62%. Disaggregated based on the respondents' involvement in platform work (table 2), around 21% (28%) of male (female) respondents were involved in platform work at the time of the survey. Male and female respondents who have ever done platform work is higher at 33% and 42%, respectively.

Table 2: Distribution of respondents by involvement in platform work

	Currently involved in platform work				Have ever done platform work		
	Male	Female	Total		Male	Female	Total
No (%)	79.30	71.53	74.39	Never did platform work (%)	66.88	57.67	61.05
Yes (%)	20.70	28.47	25.61	Ever did platform work (%)	33.12	42.33	38.95
# observations	314	541	855	# of observations	314	541	855

The distribution of respondents based on their work portfolio in periods 1 and 2 is shown in table 3. Around 39% of the respondents before the ECQ have neither platform nor non-platform work, 13% have platform work only, 40% have non-platform work only, and 8% have both platform and non-platform work. The percentage of respondents who are not engaged in either type of work has increased during the ECQ. This increase comes from the decline in the proportion of respondents exclusively working in non-platform setting. The percentage of respondents with non-platform work only remains at around 13% during the period.

Disaggregated by gender, the proportion of both male and female respondents who have non-platform work only before the ECQ have declined while the proportion of those without any type of work have increased during the ECQ. Compared to the proportion of female respondents, a bigger proportion of male respondents are engaged exclusively in non-platform work before and during the ECQ. On the other hand, a bigger percentage of female respondents (compared to that of male respondents) are engaged exclusively in platform work in the same periods.

Table 3: Distribution of respondents by work portfolio, before and during the ECQ, %

	All		Male		Female	
	Before the ECQ	During the ECQ	Before the ECQ	During the ECQ	Before the ECQ	During the ECQ
Platform work only	13.22	13.57	7.96	7.96	16.27	16.82
Both platform/non-platform work	7.72	6.55	7.96	7.96	7.58	5.73
Non-platform work only	39.88	26.67	46.50	31.21	36.04	24.03
No platform/non-platform work	39.18	53.22	37.58	52.87	40.11	53.42

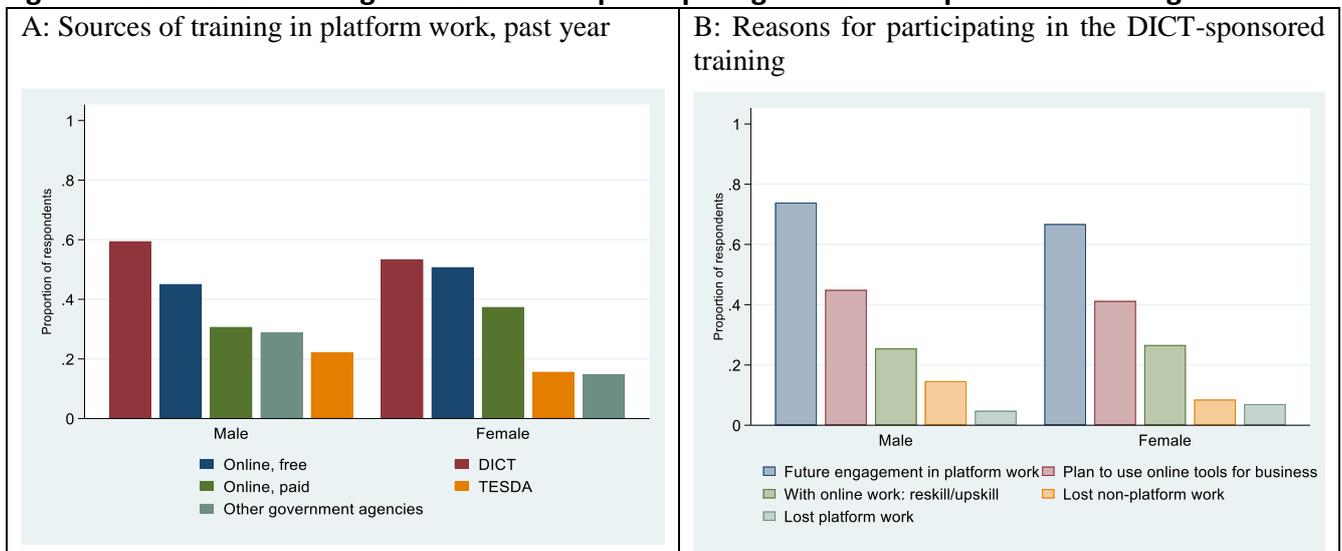Source: May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work
Note: Total, male, and female respondents are 855, 314, and 541, respectively.

Reasons for attending the DICT training

Looking into the sources of training in online work in the past 12 months (Figure 2, panel A), the DICT-sponsored and free online training (e.g., You Tube) are popular, with more than half of male and female respondents indicating to have availed of training from these sources. Paid online training (e.g., Coursera) is also popular among male and female respondents although the latter has a higher percentage. Training sponsored by other government agencies are also popular among male respondents, with around 28% indicating to have availed training from these sources.

Majority of the male (74%) and female (67%) respondents have indicated future engagement in platform work as the reason why they have participated in the DICT-sponsored training. Future plans of using online tools for businesses are also articulated by 45% and 41% of male and female respondents, respectively. A little over 25% of both respondents have indicated upskilling/reskilling as a reason for participating in the training. Losing either their platform or non-platform work was among the least popular reasons although a higher proportion of male respondents have indicated to have lost their non-platform work.

Figure 2: Sources of training and reasons for participating in the DICT-sponsored training

A: Sources of training in platform work, past year

B: Reasons for participating in the DICT-sponsored training

Source: May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work
Note: Respondents were asked to check all that apply.

Reasons for non-involvement in platform work

Looking into those who never had any platform work (636 respondents), majority of the male and female respondents have indicated the lack of opportunities and inadequate skills as reasons why they were not involved in platform work (Figure 3). Noticeably, connectivity is also a problem for a higher proportion of male than female respondents.

While the lack of opportunities and inadequate skills are reasons for majority of rural and urban respondents, a higher proportion of respondents in rural communities have indicated connectivity issues. This is not surprising since the 2019 National ICT and Household Survey results show that the incidence of households without Internet access is higher in rural areas than in urban communities. The same survey also reports that Globe is the most common Internet Service Provider (ISP). However, it is also the slowest among the ISPs in the country,

with a download speed of 6.44 Mbps (Globe Mobile) and 7.49 Mbps (Globe Telecom)[8]. Thus, connectivity issues are not only about the presence or absence of ISPs but are about the quality of services being provided as well.

Figure 3: Reasons for non-involvement in platform work

Source: May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work
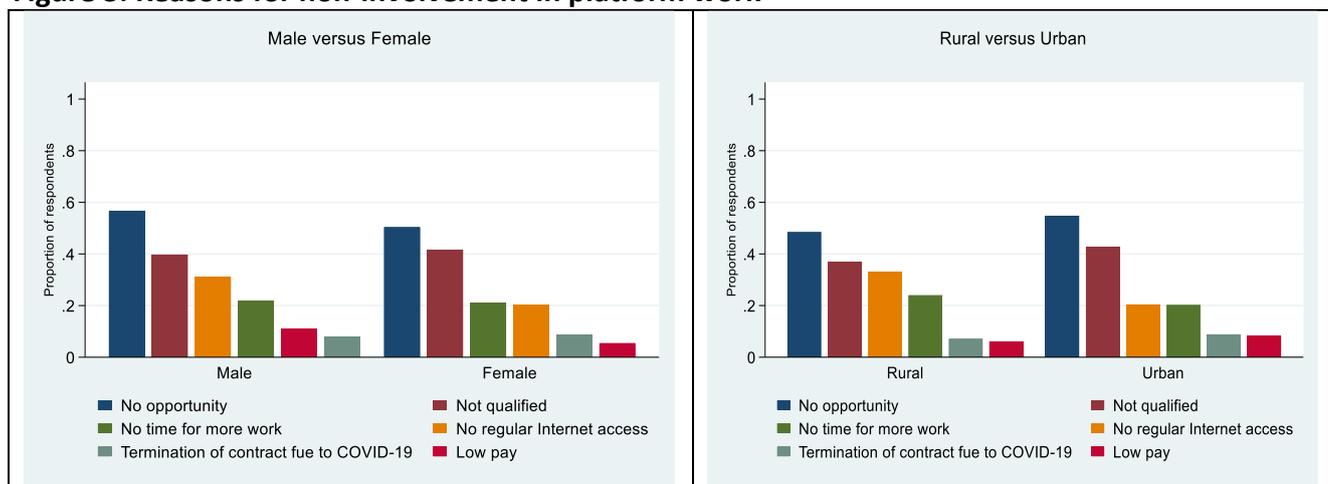Note: Respondents were asked to choose at most three choices.

Effects of COVID-19

Respondents were asked "In 3-5 phrases, how were you affected by the ongoing COVID-19?" There are several categories formed based on the responses: financial/opportunity loss, unemployment, reduction in platform work, limited mobility, increased expenses/depletion of savings, emotional/psychological issue, and adjustment to the work from home scheme. Some favorable responses are also identified such as the increased demand for business and more available time for self and family. Financial losses, including wage and income losses arising from the no-work-no-pay practice) and opportunity losses (due to lower working hours, fewer projects, termination of contracts, and cancellation of training that could have translated into employment and earnings), are the impacts most identified by men and women. Effects identified are interrelated, however. Financial and opportunity losses have resulted in increasingly unpaid household expenses. Losses from the closure of businesses have resulted in other issues like the depletion of savings and psychological and mental stress due to uncertainties.

> *"No work-no pay. No breaks from bills and we have no primary source of income now."*
> Female, Laguna

> *"Less income. Less opportunities. Higher bills."*
> Female, La Union

> *"My husband still has work but the company pays him only half of his pre-pandemic earnings. Bills pile up and the kids school has been stopped. Kids are emotionally affected since they are wondering why they can't go out, play with their friends or even to go in the mall. I can't really eat proper foods since going out is very limited This is psychologically stressful."*
> Female, Cavite

---

[8] As of June 2020, Comclark is the fastest at 22.54 Mbps, Converge ICT Solutions at 21.37, Converge at 20.56, PLDT at 19.41, Sky Cable at 11.82, Smart Broadband at 9.6, and Eastern Telecoms Philippines at 9.08. https://www.statista.com/statistics/1117074/philippines-fastest-internet-service-providers-by-download-speed/

"I had to close the shop due to the ECQ and the mini grocery store for health safety purposes. I had been living entirely on savings, stocked goods, and financial help from a family member."
Male, Camarines Sur

"I'm running down my savings, which will last only for 2 to 3 months. My work is also in danger since I work for a BPO company that is based in the US and there is a risk that my company will go bankrupt."
Male, NCR

"I used to work for 8 hours per day from Monday to Friday but on April 1 it was cut down to 4 hours until now. My wife's small sari-sari store, one of our income sources, was also closed mid-March until now to avoid the chances of getting infected. My mother's part-time job was stopped, too, due to COVID-19. My mother helps us with bills payment."
Male, NCR

"It affects me financially. No income. I'm worried about how to feed my family and pay the bills. Psychologically for almost a month, I don't get enough sleep thinking how to survive in this pandemic."
Male, Cebu

Most of the respondents identified several interrelated impacts and in figure 4, the responses are treated as multiple answers. This means that if three of the categories have been articulated as impacts, then each of the categories are ticked for that respondent. The three impacts identified by most men and women are financial/opportunity losses, unemployment, and reduced platform work. A higher percentage of women than men have indicated they suffered financial/opportunity losses while a higher percentage of men have experienced unemployment.

Adjustment to the work from home scheme, depletion of savings, and mental and emotional stress are reported by a similar percentage of male and female respondents. However, a higher proportion of women have indicated hampered mobility and issues on access to services, which include the lack of transportation to take sick household members to health care facilities and to buy groceries. On the other hand, a slightly higher percentage of men have reported depletion of savings due to the lack of income.

Figure 4: Impacts of COVID-19
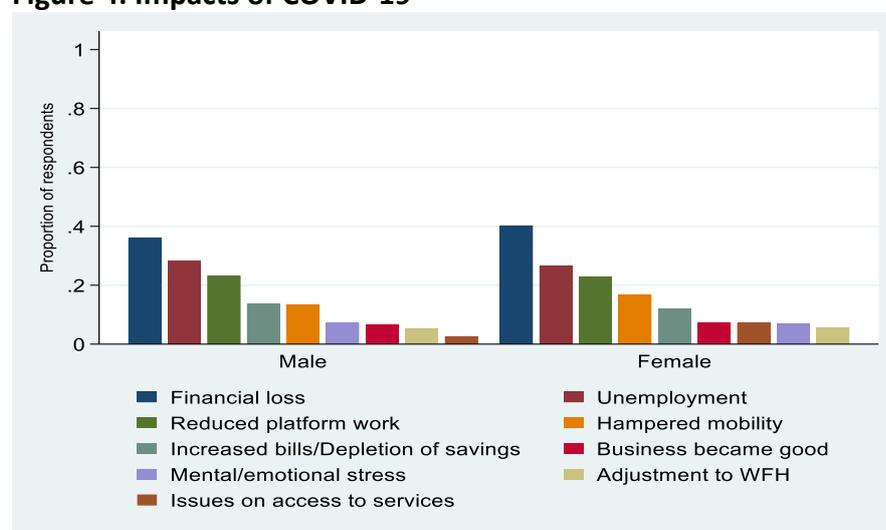
Source: May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Focusing on platform work, a similar proportion of male and female respondents (around 23%) have indicated a reduction of online work. This includes the termination of contract, loss of

clients, and reduction of work hours in platform work. Related to the online work, respondents shared issues on connectivity that appears to be aggravated by limited mobility. Compared to the pre-pandemic when people can go to places with strong connectivity, the ECQ had forced them to stay in one place that can have connection problems or without technicians to troubleshoot connection issues.

> *"The Internet connection is my ultimate problem because per customer service representative they don't have technician in our area."*
> Female, Negros Occidental

> *"I decided to stay in the province with my family during this pandemic. It was hard to get involved in any online work because of slow internet connection in our area."*
> Female, Quezon

Due to the no work-no pay policy adopted by some employers and the job loss experienced by people during the ECQ, many started to look for alternative ways to generate income. Pre-pandemic, online workers from the Philippines account for 12% of the global oversupply in one major platform (see Graham et al 2017, for example). Not only will oversupply exert a downward pressure on compensation as workers potentially underbid each other but this will adversely affect the workers' bargaining power as well (Bayudan-Dacuycuy et al 2020a). As more people turn to online work and as activities of outsourcing businesses slow down due to global lockdowns, the fiercer competition can exacerbate the challenges and issues posed by the pre-pandemic mismatch between demand and supply. Indeed, respondents have articulated the concern not only about the competition and eventual reduction in contract prices but about the loss of clients and cancellation of contracts as well.

> *"The competition is fiercer as more workers shift to freelancing. The low demand for work also means I have to take a pay cut."*
> Female, Cebu

> *"There was a decline in working hours in my online work. I experienced loss of clients due to the closure of small start-up companies."*
> Female, Rizal

> *"It is hard to find online work. Other clients decided to stop their work because of the pandemic."*
> Female, Rizal

It should be pointed out, however, that while the reduction of online work is an expected outcome of global slowdown, there are certain types of online work that are resilient. Online work (or crowdwork in the words of Hunt et al (2017) and Graham et al (2017)) can be macrotask, which require specialized skills such as web and software development, or microtask, which include data collection, categorization, content access/moderation/creation, market research/reviews, transcription. There is evidence that macrotasks, such as software development/technology, were unaffected while those related to creative/multimedia and sales/marketing support had been adversely affected by the pandemic (Stephany et al 2020). Looking into how the Philippine online workers fare in the global online work, Bayudan-Dacuycuy et al (2020a) used the Online Labor Index, an online database maintained by the Oxford Internet Institute and University of Oxford, to show that around 25% of Filipino online workers are performing clerical and data services while less than 10% of online workers from other Asian countries such as Bangladesh, India, Indonesia, and Pakistan are doing these tasks. The same study articulates that around 14% of Filipino online workers are into software development and technology, which is really small compared to online workers from India, Pakistan, and Vietnam, at 59%, 45%, and 52%, respectively.

The online survey results appear consistent with broad patterns noted above. Table 4 shows that a big percentage of the respondents are doing marketing/sales and clerical/data entry on the platform. In fact, the percentage of those performing marketing and sales have increased from the past 12 months to 1 month before the ECQ. While the proportion of workers in the creative and multimedia is stable at 17-18%, a small percentage of the respondents were into software development/technology and web design/development. This percentage has become even smaller one month before the ECQ.

Table 4: Types of platform work done by respondents, %

	Did platform work in the last 12 months before the ECQ	Doing platform work one month before the ECQ
Clerical and Data entry	28.92	24.32
Creative and multimedia	17.67	16.22
Financial services/bookkeeping	2.41	3.38
Internet Marketing (SEO, Content Writing)	8.43	16.89
Sales and marketing support	16.06	16.22
Software development and technology	4.82	2.7
Tutorial services	9.24	10.14
Web design/development	7.63	6.08
Writing and translation	4.82	4.05
Total observations	249	148

Source: May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work

4. Characterizing workers and work on the platform

Women and young people are more likely to participate in platform work. Based on the 639 respondents collected through the Online Survey of Market and Non-Market Work in May 2020, Bayudan-Dacuycuy et al (2020b) have found that female respondents have a higher probability of working on the platform than male respondents. A similar correlation is found using the data from the 855 respondents in the May-December 2020 online survey. This result is consistent with that of Berg (2016) and Ipeirotis (2010).

Young people are likely to participate in platform work since they are technologically and networking-adept group of people who are familiar with the tools and resources needed in platform work. They are likely to take on platform work since it allows them to pursue other interests while they are young. Indeed, Bayudan-Dacuycuy et al (2020b) have found that 25-year-olds have a higher probability of working on the platform relative to 35-year-olds[9]. The average age of Filipino platform workers who participated in the May-December 2020 online survey is 31 years old although by gender, the average age of male and female respondents is 29 and 31 years old, respectively.

Flexibility is a major consideration in platform work (Figure 5). Looking into considerations other than flexibility, a higher proportion of women have done platform work due to housework and due to the pursuit of other interests. In contrast, the pursuit of other interests is the main consideration for a higher percentage of male respondents while housework is important only

---

[9] Defined as those who have platform work one month or past 12 months prior to ECQ.

to a small proportion of male respondents. Other than the additional income, savings from travel costs and better pay are also factors considered by respondents.

Figure 5: Considerations in platform engagement
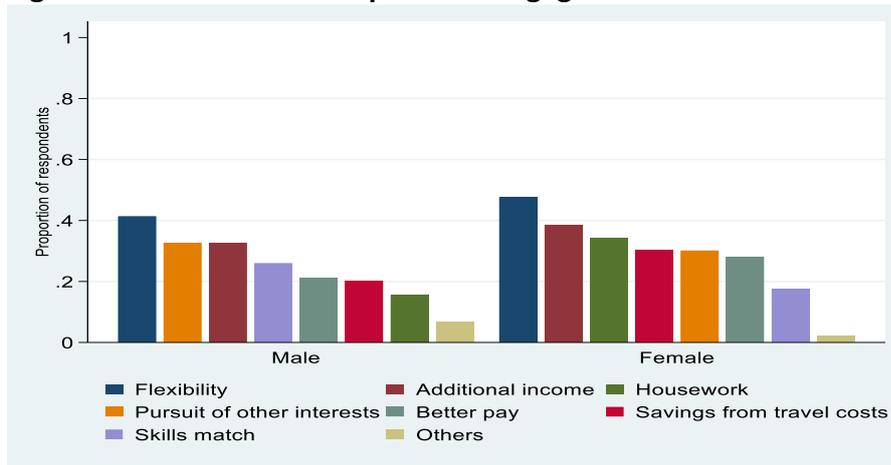
Source: May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work
Note: Respondents were asked to choose at most 5 answers.

Several issues are observed, with slow connectivity and the absence or inadequacy of social protection as forefront among these challenges. This is especially true for 53% of the female respondents who have indicated these as issues they confront with in their platform engagement (Figure 6). Time management due to housework and having a full-time job are concerns for 30% and 24% of female respondents, respectively. Rejection of outputs due to inadequate skills, low pay due to the inability to negotiate, and isolation are issues for around 20% of female respondents as well. The low pay, while it can be a result of inadequate skills, can also be a result of the market forces like global oversupply and the workers' strategy to secure a platform work. Workers are aware that the market on the platform is fluid, and a high asking price can result in loss of clients. Thus, workers, especially those who need to establish work history, are likely to contribute into the problem of low compensation.
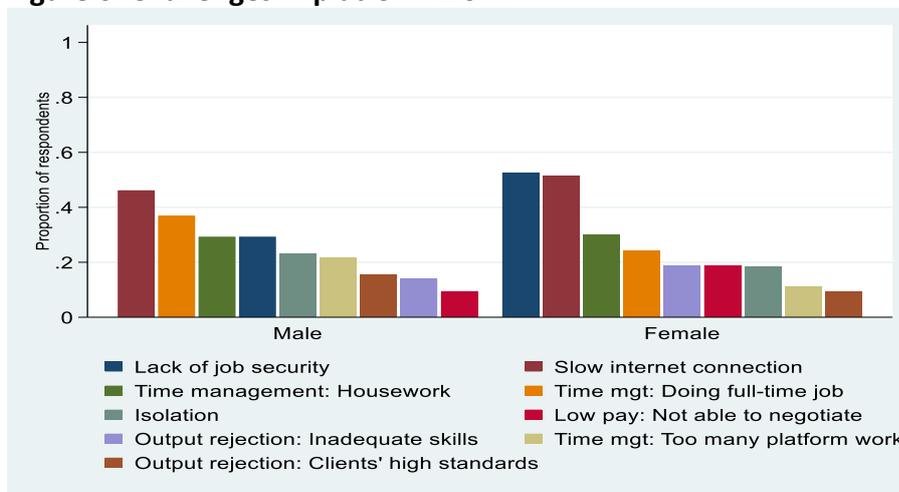
Figure 6: Challenges in platform work

Source: May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work
Note: Respondents were asked to choose at most 3 answers.

Connectivity is also a challenge reported by the highest proportion of male respondents (46%) although more men have reported challenges on time management arising from having a full-time job (37%) than on issues related to the job security and housework (29%). A higher proportion of men compared to women have reported challenges on time management due to the presence of many platform work (21% versus 11%) while a higher proportion of women compared to men have reported issues of inadequacy of skills (19% versus 14%).

Platform work can be done alongside non-platform work, with the latter as the potential source of social protection. A higher proportion of respondents who have non-platform work (relative to those without non-platform work) are contributors to social security fund and private annuity/provident fund, are subscribers of private health insurance and have cooperative memberships, and time deposit accounts (Figure 7, panel A). A similar observation is noted for respondents whose platform work is a secondary source of income (relative to those whose platform work is a primary source of income, Figure 7, panel B). It can be observed that there is a very high percentage of respondents with Philhealth and savings account. Philhealth is a National Health Insurance Program designed to ensure accessibility and improve the insurance coverage. The high proportion of respondents with savings account potentially reflect the mode of payment such as bank-to-bank transfers typically used by platforms.

While entitlements can be derived from non-platform work, social protection coverage remains a big challenge for women. First, women's labor force participation is low, which is 46.195% of the female population who are at least 15 years old[10] in 2020. This implies that fewer women have insurance and pension coverage and access to consumption smoothing mechanisms like memberships to cooperative. Figure 7 (panel A) appears to support these gendered differences, which shows that relative to their male counterparts, a smaller percentage of female respondents without non-platform work contribute to social security fund. Second, for those with non-platform work, an issue that appears relevant is the prevalence of informal work among women, which in 2020 is around 50% of women in the labor force. [11] Figure 7 (panel A) shows that there is a smaller proportion of female platform workers (relative to their male counterparts) who contribute to a private annuity/provident fund, subscribe to private health insurance, and are cooperative members.

Figure 7: Subscription of platform workers to security fund, private health insurance, and other social protection measures
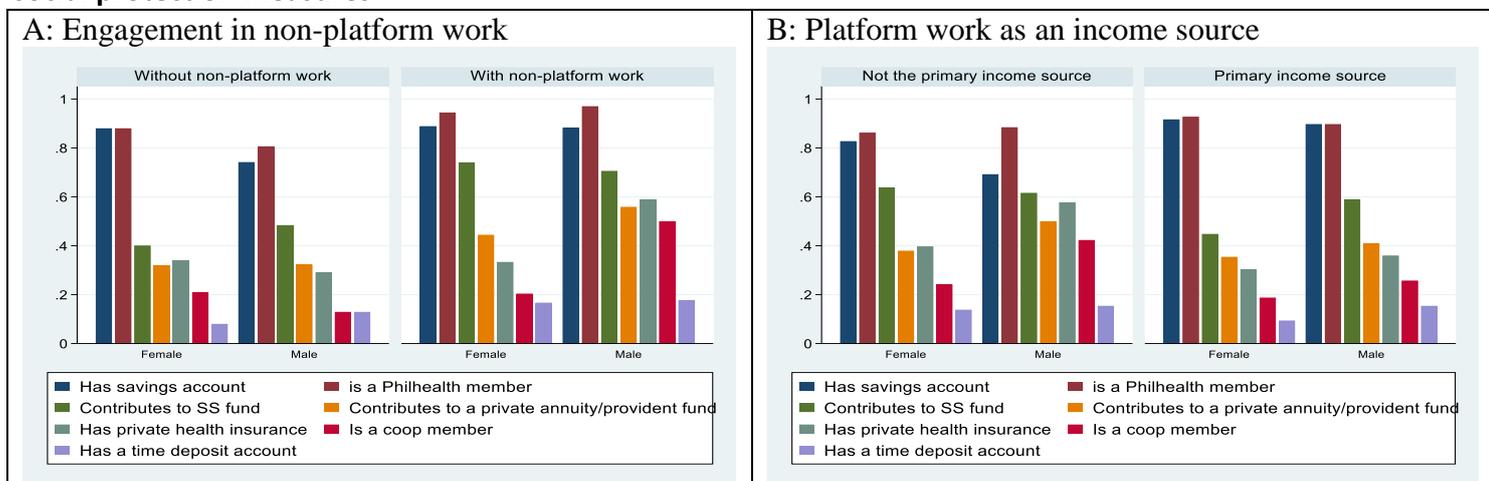
Source: May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work

---

[10] Based on WDI-World Bank, modeled ILO estimate.
[11] Own-account workers, based on the LFS April round, 2019.

Among platform and non-platform workers, commonly cited reasons for non-subscription to security funds, pension funds or private health insurance include budget constraints, attitudes and lack of information*. In the latter survey roll out, respondents are asked for the reason why they do not regularly contribute to a social security fund (e.g. GSIS, SSS) and to a private annuity/pension/provident fund and why they do not have a savings account or private health insurance. Common issues raised by respondents with platform work are their inability to pay regularly due to the limited funds and the instability of their monthly income.

> *"Financial struggles due to unemployment. Less job opportunities."*
> Male, Camarines Norte

> *"I don't have a stable job."*
> Female, Maguindanao; Male, Davao del Sur

Attitudes shaped by financial concerns are also noted, with respondents indicating that this is not a priority. Others indicate their preferences to save on their own rather than subscribe to a pension fund.

> *"For now, I don't have a stable income to prioritize this matter."*
> Female, Oriental Davao

> *"I prefer to save on my own. Planning to subscribe. Happy and contented without it still."*
> Male, Davao del Sur

Some respondents have articulated the lack of information on the process of subscription as well.

> *"I don't know how to join a private contribution. I don't have the budget to make a regular contribution."*
> Female, Davao Del Sur

The lack of budget is a reason not unique to platform workers, however. Those who did not have platform work have also indicated the inadequate income and the lack of financial capabilities to contribute to social security fund (e.g. GSIS, SSS) and to a private annuity/pension/provident fund. There are respondents who discontinued their subscription due to unemployment or to the increasing premium. Other reasons for non-subscription include attitudes and lack of information as well.

> *"My salary is not that big and. The contribution is too high."*
> Male, Antique

> *"When I was employed I am always up to date with the payment it's just that I got unemployed and had some financial problems."*
> Male, Maguindanao

> *"I'm not interested."*
> Male, Davao Oriental

> *"I do not have any idea."*
> Female, Tarlac

> *"Difficulty of maintaining/acquiring said service in rural parts of the country."*
> Male, Antique

Majority of the respondents have current platform engagement that are similar to their past platform work. As firms rely on experience as signal, past experiences largely set the nature and type of future jobs on the platform. From table 5 (diagonal in bold), majority of the respondents who are platform workers are performing tasks that are similar to their past platform work. Around 51% who have platform work in the past 12 months prior to the ECQ are no longer doing platform work one month prior to the ECQ (Table 5, third row). Only around 4% are newcomers (e.g. no past experience but have platform work currently (Table 5, first column, 27/606)) and none of them are doing macrotasks or tasks that require specialized skills such as software development or web design. Among those who had past and current work, only round 9% are into macrotasks (13/148).

Table 5: Movement of platform workers, by type of work

| Current platform work	Past 12 months platform work									Total
	0	1	2	3	4	5	6	7	8	
0 None	579	41	23	4	26	7	11	10	6	707
1 Clerical and Data entry	7	**28**	0	0	1	0	0	0	0	36
2 Creative and multimedia	4	0	**17**	0	2	0	0	1	0	24
3 Financial services	1	1	0	**2**	1	0	0	0	0	5
4 Internet Marketing	12	0	4	0	**31**	0	1	0	1	49
5 Software development	0	0	0	0	0	**4**	0	0	0	4
6 Tutorial services	3	1	0	0	0	0	**11**	0	0	15
7 Web design/development	0	0	0	0	0	1	0	**8**	0	9
8 Writing and translation	0	1	0	0	0	0	0		5	6
Total	606	72	44	6	61	12	23	19	12	855

Source: May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work

Past experience on the platform is an important factor in the current platform involvement. Using the data in platform work one month before the ECQ, a more systematic description is done to look into the importance of experience in platform work. Based on the probit regression estimates, shown in Table A2 in the appendix, the probability of being involved in a platform work is predicted based on benchmark attributes: household head, 35-year-old, single, has finished at least a college degree, has contributed to a social security fund in the last 6 months, has a private health insurance and a savings account, does not belong to a low-income household (total household income per month of at most PhP 20000), has paid for online courses/training in the past 12 months, and has no income from other sources such as online selling and/or cryptocurrency Given this profile, the probability of being a platform worker is predicted by assuming different combinations of current non-platform work and past platform work indicators.

Figure 8 confirms that female respondents have higher probabilities of being engaged in platform work than male respondents. It also illustrates that past experience on the platform is a key factor in current platform engagement. Male and female respondents who are currently working in a standard work arrangement are 70% and 78%, respectively, likely to be currently involved in platform work when they had past platform experience. These probabilities are much lower for those without past platform involvement (25% and 34%, respectively). For male and female respondents who have non-platform work, those with past platform experience are 54% and 65%, respectively, likely to have current platform work. Those without past platform work are 14% and 20%, respectively, likely to be currently engaged in platform work.

Figure 8: Predicted probabilities of being currently engaged in platform work
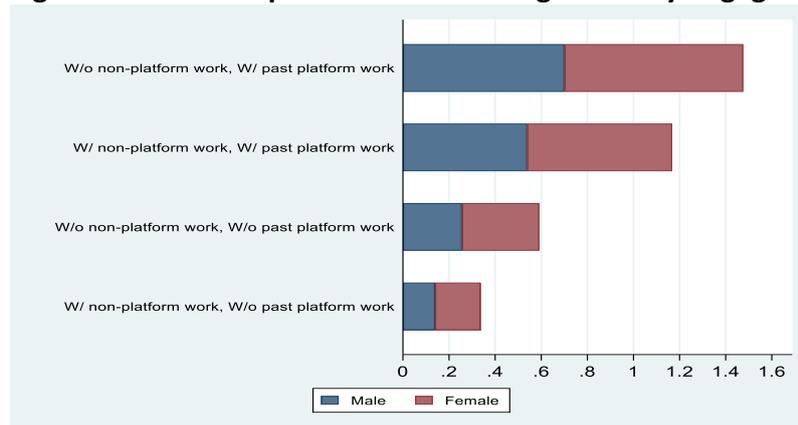
Source: Authors' estimates using the May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Both male and female respondents recognize the importance of hard and soft skills in platform work. Both respondents have indicated the need to develop skills in sales and digital marketing, which include content creation, advertising, and brand awareness/promotion (Figure 9). Female respondents have also indicated the need for skills in macrotasks such as graphic development and computing. Both respondents also recognize the need for soft skills like communication and negotiation. Based on the question on whether they negotiated for the contract price or not, only around 30% of those who have ever performed platform work have done so. This potentially implies that either they are contracted for tasks that do not have room for negotiation (e.g. clerical, microtasks) or they do not have the appropriate skills to bargain. Respondents have raised the rejection of outputs due to the lack of bargaining skills or to the high client's standards as a challenge to their platform engagement. The fact that only around 1% of the respondents with platform work have indicated that the rejection of their outputs were not justified signals skills development to be a critical step towards a more competitive online workforce and sustainable platform work.

Figure 9: Skills to gain more projects through digital platforms
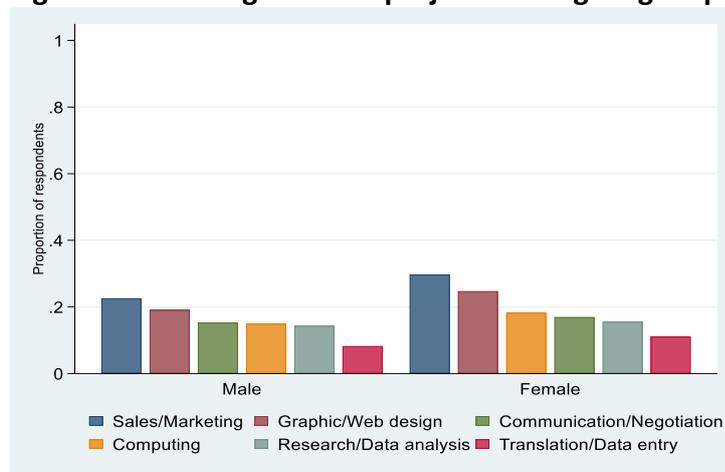
Source: May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work
Note: Respondents were asked to check all that apply.

Female respondents who are engaged in platform work spend more time on care work than their male counterparts. Based on the test of means, female respondents whose platform work is a primary source of income spend 2 hours on care work more than men (Table 6, panel A).

23

This is true one month prior to the ECQ and a month after the ECQ has been imposed. When female respondents have no non-platform work, they spend around 1 hour and 52 minutes on care work one month prior to the ECQ more than men. The gendered difference has increased to around 2 hours and 25 minutes one month after the ECQ. Meanwhile, there is no statistical difference in the time spent on care work and housework when the platform work is not a primary source of income and when respondents have non-platform work.

Among respondents who neither have platform work nor non-platform work, women spent around 1 hour and 50 minutes on care work more than men one month before the ECQ (Table 6, panel B). The difference has decreased to around 1 hours and 41 minutes a month after the ECQ had been imposed. Similar patterns can be observed for housework although the magnitude is lower. There is no gendered difference in the time spent on both care work and housework when respondents have non-platform work, however.

Table 6: Test of difference of hours spent on care work, housework, and platform work, between male and female respondents

	1 month before ECQ	1 month in the ECQ	Observations: Male	Observations: Female
A: Respondents with platform work				
Platform work is not a primary source of income				
Care work hours	0.56	0.52	21	58
Housework hours	-0.01	-0.13	21	58
Platform work hours	0.74	0.52	12	34
Platform work is a primary source of income				
Care work hours	-1.92***	-2.00***	32	96
Housework hours	0.58	0.29	32	96
Platform work hours	-0.11	0.01	22	75
Has no non-platform work				
Care work hours	-1.86**	-2.42***	24	100
Housework hours	0.16	-0.35	24	100
Platform work hours	0.49	0.06	14	71
Has non-platform work				
Care work hours	0.35	0.70	29	54
Housework hours	0.77	0.76	29	54
Platform work hours	0.39	0.48	20	38
B: Respondents without platform work				
Has no non-platform work				
Care work hours	-1.88***	-1.69***	105	199
Housework hours	-1.27***	-1.03***	105	199
Has non-platform work				
Care work hours	-0.31	-0.34	144	188
Housework hours	-0.02	-0.47*	144	188

Source: Authors' estimates using May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work
Notes: Null hypothesis: diff = mean(Male) - mean(Female)=0.
***Cannot reject the alternative hypothesis: diff = mean(Male) - mean(Female)<0

The benefits of flexibility in platform work appear limited. Leveraging the question in platform work before the ECQ and during the past 12 months prior to the ECQ, a regression on the panel data is done to analyze the conditional mean of the hours spent by the respondents

in platform work. To do this, the benchmark attributes found in Bayudan-Dacuycuy et al (2020b) are also assumed. Several interesting observations are noted. First, platform work hours differ between respondents with and without non-platform work. The former spends higher work hours on the platform (Figure 10, panel A). Second, the peak of platform work is done alongside minimal care work hours (Figure 10 panel A). Beyond 1-2 hours of care work, the hours spent in platform work decline and approach zero. Third, female respondents with non-platform work spend more hours on platform work than men given 2-3 hours of care work (Figure 10 panel B).

There is no gendered difference in the compensation per hour once personal and platform attributes are controlled for. Based on the respondents' data for the past 12 months and one month prior to the ECQ, a panel regression is conducted. Following Bayudan-Dacuycuy et al (2020b), benchmark characteristics are assumed to determine the potential effects of specific attributes. From table 7, there is no statistical difference between the male and female's compensation/hour and this is true across different assumptions in the workers' and platform-related attributes. This result is consistent with studies that show a statistically insignificant pay gap once education, experience, and geographical location are accounted for (see for example, Berg et al 2018).

Figure 10: Predicted hours spent on the platform, conditional on care work hours and engagement in the non-platform work
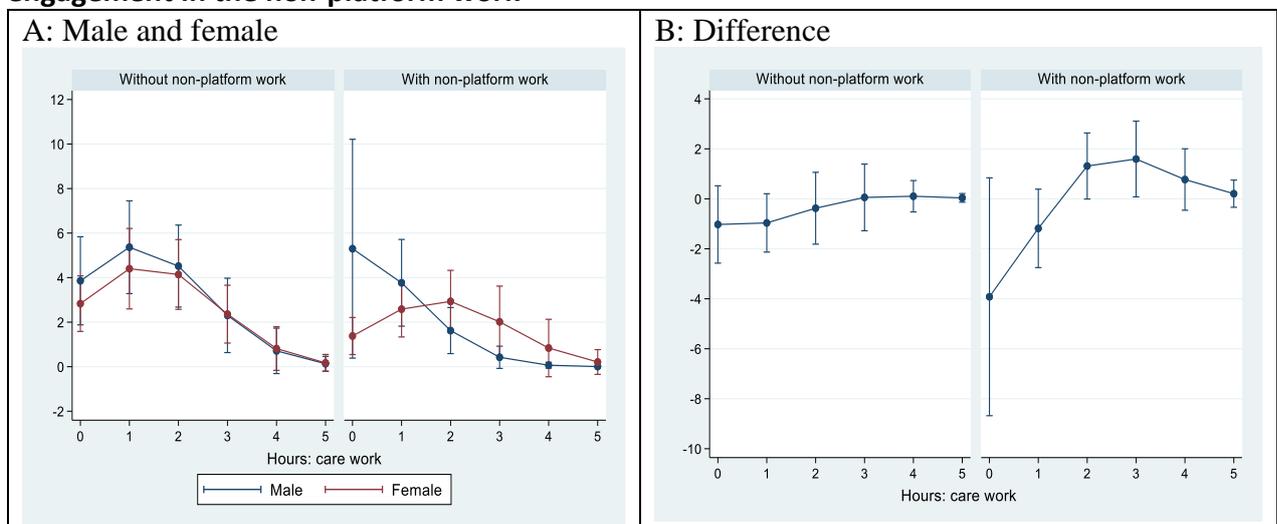
Source: Authors' estimates using the May-December, 2020 PIDS-DICT Online Survey of Market and Non-Market work

Notes: Benchmark characteristics: is 35-year old household head, with a college degree, does not belong to a low-income household, has no income from other online sources, and is engaged in a local platform for a macrotask, and has money and flexibility as motivations for engaging in platform work.

The compensation/hour received by the respondents is higher relative to the compensation prevailing in the country. The compensation/hour, determined using the benchmark attributes, is higher than the minimum wage in 2020 (US\$4.6/hour versus US\$ 4-9/day). This is also higher than the basic pay of a professional, documented by Bayudan-Dacuycuy et al (2020b) at PhP753-830/day or around US\$15-16.6/day.

The compensation/hour received by the respondents is on par with the rate of platforms that are known for outsourcing routine tasks. From table 7, respondents who work in international platform earn around US\$8/hour, which is similar to the pay in the US Amazon Turk (Berg et

al 2018), a platform that specializes in routine tasks (Kuek et al 2015, Ipeirotis 2010, Ross et al 2010).

Table 7: Conditional mean compensation/hour in platform work

	Male	Female	Difference*
Benchmark characteristics	228	218	9
Not college graduate	164	157	7
No self-paid training courses	165	158	7
Negotiated the contract price	308	295	13
No non-platform work	359	344	15
International platform	423	405	18

Source: Authors' estimates using the May-December 2020 PIDS-DICT Online Survey of Market and Non-Market work

Notes: Benchmark characteristics: is 35-year old household head, with a college degree, does not belong to a low-income household, has no income from other online sources, engaged in non-platform work, and is engaged in a local platform for a macrotask. *p-values of the column entries exceed the 5% level of significance.

5. Ways forward

Platform work has the potential to help women reconcile the age old conflict between unpaid work and market work. It also has the potential in helping achieve SDG targets on women empowerment and gender equality. However, there is a degree of precariousness in platform work, one that is reminiscent of informal work. Concerns on whether platforms are new vehicles of delivering old inequalities are legitimate. Thus, there is a need to analyze the issues in this emerging type of work to prevent the widening and deepening of existing inequalities, to ensure decent work in platform work, and to ensure that the work is inclusive and sustainable. This paper is an attempt towards that direction, although the effort is minuscule relative to what is warranted by a new work setting that is still evolving. Key results using an online survey include the following:

- Women are more likely to participate in platform work due to considerations of income, housework, and care economy.
- Platform work is done alongside non-platform work, which is the source of security benefits and entitlements of platform workers.
- Past experience on the platform is an important factor in the workers' current platform involvement.
- The time spent on platform work peaks at minimal care work. Beyond 3 hours of care work, the time spent on platform work is zero.
- There is no gendered difference in the compensation per hour once personal and platform attributes are controlled for.
- The compensation per hour received by the respondents is on par with the rate of platforms that are known for outsourcing routine tasks (microtasks). It is higher relative to the compensation prevailing in the country.

Given its flexibility, as highlighted by women being more likely to participate into the work, and its potential for gender equality, as highlighted by the absence of gendered difference in the compensation per hour, national programs and initiatives are needed to ensure decent work in crowdwork, a platform work that typically crosses borders that make the enforcement of national labor laws difficult. The paper highlights the following key takeaways:

Without policies and programs towards skills development, skills gap between gender is likely to remain, if not widen. It is imperative to preempt the potential widening of this gap if platform work is to help achieve the SDG targets on women empowerment and care economy. Due to the absence of employer-employee relationships in the platform setting, risks and costs associated with investments in training skills development are borne by workers. For platform workers who have non-platform work, training may not be as costly since their training can be derived from their non-platform work. Indeed, involvement in a formal workplace contributes to the worker's development through practice and interaction. However, this benefit is not available to a large portion of 15-64 year-old Filipinas since only around 46% (in 2020) are into the labor force. Female respondents are more likely to participate in platform work and this puts forth the issue of how they can secure jobs, what types of jobs they can secure, and whether they can sustain work on the platform.

The importance of skills development is highlighted by the observations noted from the online survey data: 1) Majority of the respondents have current platform engagement that are similar to their past platform work. and 2) Past experience on the platform is an important factor in whether or not workers will be currently engaged in platform work. The former emphasizes the critical role of skills in securing a job on the platform and in getting one that has higher value-added and potentially less vulnerable to a crisis or pandemic. The latter highlights the role of skills in the sustainability of platform work. Dropping out of the platform work is more common among women (Hunt and Samman 2019; Farrell and Greig 2016) and potential reasons include the absence or inadequacy of skills and abilities.

It is also underscored by broad patterns showing that around 25% of the Filipino online workers are performing tasks that are at the low end of the value chain (clerical and data services) and around 50% are performing tasks, like multimedia and clerical services, that are heavily affected by the pandemic (Bayudan-Dacuycuy et al 2020a). This is validated by the respondents' articulation of issues on the fiercer competition resulting in the reduction of contract prices and the loss of clients and cancellation of contracts during the pandemic.

Skills development and training systems that enable workers to develop the requisite skills in any work arrangement is crucial. The government can leverage digital platforms to efficiently bring together markets for skills and training. Echoing Bayudan-Dacuycuy et al (2020a, 2020b), national initiatives related to skills and training systems are advocated. This will help women in harnessing the benefits (economic empowerment, flexibility to perform housework and care economy) of platform work. More importantly, this will help both men and women prepare against the challenges brought about by disruptions and uncertainties in the labor market. To do this, the government can leverage digital platforms to develop skills and training systems that will bring together public and private providers to serve the demand for skills and training. Crucial to this is the collaboration among stakeholders (government, academe, industry, workers' association, private providers) that should become stronger and sustainable as demand grows. This will allow stakeholders to collect and analyze data to improve the provision of services, identify additional training programs to respond to the evolving needs of the local and global markets, forge new collaboration with other actors, and develop strategies to finance the workers' training needs. Consultations with interest groups such as the associations of freelancers and work from home mothers are imperative.

The government can also leverage existing government programs to set up the skills and training systems. The DICT's *digitaljobsPH* program, for example, has been conducting training to equip Filipinos with ICT-related skills to assist economically-disadvantaged areas

and rural communities through the creation and promotion of ICT-enabled jobs. It has collaboration with local government units and other government agencies. Other programs and initiatives that can be used as building blocks include the Philippine Qualifications Framework (PQF)[12] and the Philippine TalentMap Initiative (PTMI) by the Department of Labor and Employment[13].

Without policies and programs towards social protection systems that adjust to the evolving nature of work, gender gaps in coverage are likely to remain, if not widen. In the list of the desirable features of social protection systems, flexibility and portability are the most relevant to platform work. Flexibility in the design recognizes that subscribers have varying capacities to pay the premium, and flexibly-designed social protection systems will likely encourage workers with intermittent or short-term engagements to invest in their social security. Portability recognizes that workers can be engaged in various work arrangement in their life cycle. The Republic Act 7699 (Act instituting limited portability scheme in the social security insurance systems) has provided for the creation of a unitary social security system (e.g. portability of benefits derived from private and government security funds). However, the portability feature remains tied to formal employment and is elusive to a large portion of Filipinas not only because a large portion of them are not participating in the labor force but because half of those who do (in 2019) are working in the informal sector. Addressing these issues will benefit all but to a greater extent, women.

More than attitudes, budget constraints and the lack of stable income are reasons why respondents are not subscribed to security/pension funds and private health insurance. This is an obstacle that can be addressed by combining contributory and non-contributory (e.g. tax) schemes to finance a universal social protection (see Behrendt and Nquyen, 2018; ESCAP 2018).

Strategies that target both the promotion of employment and the protection of workers against uncertainties are essential. One way to do this is to link training and social protection systems, a potential starting point of which is an unemployment insurance that not only provides minimum income while unemployed but also covers reskilling/upskilling and training cost to facilitate movement in-between jobs (Bayudan-Dacuycuy et al 2020b).

Without policies and programs to address care work, women's participation in market work remains limited despite new forms of work opportunities. This brings to the fore the age-old issue of unpaid work especially care work. It is the main reason why women (especially married women) are not participating in the labor market. It also puts a limit on how much workers can put into their platform work. Thus, it is imperative to craft programs to address the care economy. Support for those who work include good and reliable child care services that coincide with the office schedule, the institutionalization of a 4-day work week, and the implementation of work from home schemes for workers whose tasks can be done off-site.

Support for men and women who do not work due to unpaid work needs more nuanced approaches. The government has created e-commerce websites to support small and medium

---

[12] The PQF, which describes the levels of educational qualifications and sets the standards for qualifications outcomes. Qualification refers to the formal certification of successfully achieving the learning outcomes relevant to the identified academic, industry, or community requirements (*https://pqf.gov.ph/#)*. The PQF has eight levels of qualifications (L1-L8) based on three learning outcomes: knowledge, skills, and values, application, and degree of independence. Grade 12 or the senior high school is the foundation of L1-L8, with L1-L5 as qualifications under the TESDA and L6-L8 as qualifications under the CHED (*https://pqf.gov.ph/#)*.
[13] The PTMI determines the strengths and weaknesses of the current workforce and addresses job skills mismatch through a competency-based assessment (*https://talentmap.ph/*).

enterprises (GoLokal-Shopinas), farmers (eKadiwa and Deliver-e), and science and technology innovation (OneStore and OneExpert) (Serafica and Oren 2020). How these government-initiated platforms can be fully harnessed by women entail a thorough understanding of those who chose care economy over market work (e.g. Are they looking for economic opportunities? What are their skills? What kinds of enterprises are they capable of? What do they need to set-up and sustain such enterprise?). Consultation with groups and associations of freelancers and work-from-home mothers is key. Knowing that there is an organized market place for their skills and talents can encourage work-from-home mothers, freelancers, and online workers to come up with good business ideas.

In addition, the DICT's *digitaljobsPH* program, a program aiming to equip the Filipinos with ICT-related skills and to assist economically-disadvantaged areas and rural communities through the creation and promotion of ICT-enabled jobs, need to be evaluated to determine strategies for scaling-up and ascertain areas of improvement in the approach and content.

Without initiatives to collect nationally-representative data of workers on the platform, analysis of benefits and challenges will remain as descriptives. The Philippine Statistics Authority should spearhead the measurement and collection although collaboration with various government agencies such as the Department of Labor and Employment, Department of Trade and Industry, DICT, and the Philippine Commission on Women, is crucial. Nationally-representative data allow the generalization of analyses and measurements for the whole population. However, it should be emphasized that this recommendation does not diminish the importance and relevance of current data collection efforts (based on purposive sampling) since the latter facilitates the visibility of issues early on. This brings awareness to the challenging tasks up ahead.

6.   References

Asian Development Bank (ADB). 2013. *Gender equality in the labor market in the Philippines*. Mandaluyong City: Asian Development Bank

Barnes, S., A. Green, and M. de Hoyos. 2015. Crowdsourcing and work: Individual factors and circumstances influencing employability. *New Technology, Work and Employment* 30(1): 16-31.

Barzilay, A. and A. Ben-David. 2017. Platform inequality: Gender in the gig-economy. Seton *Hall Law Review* 47: 393-431.

Bastagli, F. and A. Hunt. 2020. Social protection and the future of work: A gender analysis. ODI Working Paper 590. *https://www.odi.org/sites/odi.org.uk/files/resource-documents/ future_of_work_wp_final_1.pdf* (Accessed on December 26, 2020).

Bayudan-Dacuycuy, C. 2020. Why and how should we value unpaid work? Policy Notes No. 2020-03. Quezon City: Philippine Institute for Development Studies.

Bayudan-Dacuycuy, C., A. Orbeta, R. Serafica, and L. Baje. 2020a. Online work in the Philippines: Some lessons in the Asian context. PIDS Discussion Paper Series No. 2020-29. Quezon City: Philippine Institute for Development Studies.

Bayudan-Dacuycuy, C., A. Orbeta, R. Serafica, and L. Baje. 2020b. Towards a sustainable online work in the Philippines: Learnings from the online survey of market and non-market work during the enhanced community quarantine. PIDS Discussion Paper Series No. 2020-27. Quezon City: Philippine Institute for Development Studies.

Beerepoot, N. and B. Lambregts. 2014. Competition in online job marketplaces: Towards a global labour market for outsourcing services? *Global Networks* 15(2): 236-255.

Beerepoot, N. and B. Lambregts. 2017. Reining in the global freelance labor force: How global digital labor platforms change from facilitators into arbitrators. In The future of work in the Global South, edited by H. Galperin, and A. Alarcon. (pp. 12-15). International Development Research Centre. *https://www.fowigs.net/wpcontent/uploads/2017/12/ FutureOfWorkintheGlobalSouth.pdf* (Accessed on December 26, 2020).

Behrendt, C. and Nguyen, Q. 2018. Innovative approaches for ensuring universal social protection for the future of work. ILO future of work research paper series. *https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/publication/ wcms_629864.pdf* (Accessed on December 26, 2020).

Berg, J. 2016. Income security in the on-demand economy: Findings and policy lessons from a survey of crowdworkers. Conditions of work and employment series; No. 74. International Labour Office, Inclusive Labour Markets, Labour Relations and Working Conditions Branch. - Geneva: ILO.

Berg, J., M. Furrer, E. Harmon, U. Rani, and M. Silberman. 2018. Digital labour platforms and the future of work: Towards decent work in the online world. International Labour Office – Geneva: ILO.

Bergvall-Kåreborn, B. and D. Howcroft. 2014. Amazon Mechanical Turk and the commodification of labour. New Technology, Work and Employment 29(3): 213-223. *https://doi.org/10.1111/ntwe.12038* (Accessed on December 26, 2020).

Blau, F and L. Kahn. 2003. Understanding International Differences in the Gender Pay Gap. *Journal of Labor Economics* 21(1): 106-144.

Briones, R. 2018. The Wage Gap between Male and Female Agricultural Workers: Analysis and Implications. PIDS Discussion Paper Series No. 2018-15. Quezon City: Philippine Institute for Development Studies.

Chen, M. 2014. Informal economy monitoring study sector report: Home-based workers. women in informal employment: Globalizing and Ooganizing. Cambridge, Massachusetts. *www.wiego.org/sites/wiego.org/files/publications/files/IEMS-Home-Based-Workers-Full-Report.pdf* (Accessed on December 26, 2020).

Chaudhury, R. 2020. India's emerging gig economy: The future of work for women workers. *https://asiafoundation.org/publication/indias-emerging-gig-economy-the-future-of-work-for-women/* (Accessed on December 26, 2020).

Choudary, S. 2018. The architecture of digital labour platforms: Policy recommendations on platform design for worker well-being. ILO Research Paper Series.

https://www.ilo.org/wcmsp5/groups/public/---dgreports/---cabinet/documents/ publication/wcms_630603.pdf (Accessed on December 26, 2020).

Chow, N., M. Dabbay, and M. Sauler. 2019. A Decomposition Analysis of Wage Inequality in the Philippines. Presented at the DLSU Research Congress 2019. De La Salle University, Manila, Philippines. June 19 to 21, 2019.

Churchill, B. and L. Craig. 2019. Gender in the gig economy: Men and women using digital platforms to secure work in Australia. *Journal of Sociology* 55: 741-761.

Cook, C., R. Diamond, J. Hall, J. List, and P. Oyer. 2018. The gender earnings gap in the gig economy: Evidence from over a million rideshare drivers. NBER Working Paper No. 24732. Cambridge, MA: National Bureau of Economic Research.

D'Cruz, P. and E. Noronha. 2016. Positives outweighing negatives: the experiences of Indian crowdsourced workers. *Work Organisation, Labour & Globalisation* 10(1): 44-63.

David, C., J. Albert, and J. Vizmanos. 2018. Sustainable development goal 5: How does the Philippines fare on gender equality? PIDS Discussion Paper Series No. 2017-45. Quezon City, Philippines: Philippine Institute for Development Studies.

Department of Information, Communication and Technology (DICT). 2020. Project Briefer on *digitaljobsPH* Training.

Dubey, A., K. Abhinav, M. Hamilton and A. Kass. 2017. Analyzing gender pay gap in freelancing marketplace. *In Proceedings of the 2017 ACM SIGMIS Conference on Computers and People Research*, edited by D. Beimborn, R. Sharma and S.C. Srivastava. New York, NY: ACM. 13-19.

Farrell, D. and F. Greig. 2016. The online platform economy: Has growth Peaked? JPMorgan Chase & Co. Institute. *https://www.jpmorganchase.com/content/ dam/jpmc/jpmorgan-chase-and-co/institute/pdf/jpmc-institute-online-platform-econ-brief.pdf* (Accessed on December 26, 2020).

Foong, E., N. Vincent, B. Hecht, and E. Gerber. 2018. Women (still) ask for less: Gender differences in hourly rate in an online labor marketplace. Proc. ACM Hum.-Comput. Interact. 2, CSCW, Article 53. *https://dl.acm.org/doi/pdf/ 10.1145/3274322*. (Accessed on December 26, 2020).

Forde, C., M. Stuart, S. Joyce, L. Oliver., D. Valizade, G. Alberti, K. Hardy, V. Trappmann, C. Umney, C. Carson, J. Katja, and G. Yordanova. 2017. The social protection of workers in the platform economy: Study for the EMPL committee. Policy Department A: Economic and Scientific Policy, European Parliament.

Graham, M, and J. Woodcock. 2018. Towards a fairer platform economy: Introducing the Fairwork Foundation. *Alternate Routes: A Journal of Critical Social Research 29: 242-253. http://www.alternateroutes.ca/index.php/ar/article/view/22455* (Accessed on December 26, 2020)

Graham, M., I. Hjorth, and V. Lehdonvirta. 2017a. Digital labour and development: Impacts of global digital labour platforms and the gig economy on worker livelihoods. *Transfer* 23(2): 135–162.

Graham, M., V. Lehdonvirta, A. Wood, H. Barnard, I. Hjorth, and D. Simon. 2017b. The risks and rewards of online gig work at the global margins. Oxford: Oxford Internet Institute.

Hannák, A., C. Wagner, D. Garcia, A. Mislove, M. Strohmaier, and C. Wilson. 2017. Bias in online freelance marketplaces: Evidence from TaskRabbit and Fiverr. In Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing. ACM, New York, New York, USA. *https://doi.org/ 10.1145/2998181.2998327*. (Accessed on December 26, 2020).

Heeks, R. 2017. Decent work and the digital gig economy: A developing country perspective on employment impacts and standards in online outsourcing, crowdwork, Etc. SSRN Electronic Journal. *https://doi.org/10.2139/ ssrn.3431033*. (Accessed on December 26, 2020).

Hunt, A. and E. Samman. 2019. Gender and the gig economy: Critical steps for evidence-based policy. Working paper 546. London: Overseas Development Institute. *https://www.odi.org/publications/11272-gender-and-gig-economy-critical-steps-vidence-based-policy*. (Accessed on December 26, 2020).

Hunt, A., E. Samman, and D. Mansour-Ille. 2017. Syrian women refugees: Opportunity in the gig economy? London: Overseas Development Institute. *www.odi.org/sites/odi.org.uk/ files/resourcedocuments/11742.pdf*. (Accessed on December 26, 2020).

Huws, U. 2017. Where did online platforms come from? The virtualization of work organization and the new policy challenges it raises. In *Policy Implications of Virtual Work*, edited by P. Meil and V. Kirov. Palgrave Macmillan, Basingstoke, UK, 29-48.

Hyperwallet. 2017. The future of gig work is female. *https://www.hyperwallet.com/app/ uploads/HWThe_Future_of_Gig_Work_is_Female.pdf*. (Accessed on December 26, 2020)

International Labour Organization (ILO). 1999. Report of the Director General: Decent work, ILO Geneva, June 1999. *https://www.ilo.org/public/english/bureau/dgo/speeches/ somavia/1999/seattle.htm*. (Accessed on December 26, 2020).

International Labour Organization (ILO). 2013. Decent work indicators guidelines for producers and users of statistical and legal framework Indicators. *https://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/ publication/wcms229374.pdf*. (Accessed on December 26, 2020).

Ipeirotis, P. 2010. Demographics of Mechanical Turk. Working Paper. New York University Working Paper No. CEDER-10-01. *http://ssrn.com/abstract=1585030*. (Accessed on December 26, 2020).

Jarrell, S. B., and T. Stanley. 2004. Declining Bias and Gender Wage Discrimination? A Meta-Regression Analysis. *The Journal of Human Resources* 39(3): 828-838.

Kaganer, E., E. Carmel, R. Hirschheim, and T. Olsen. 2013. Managing the human cloud. *MIT Sloan Management Review* 54(2): 23-32.

Kässi, O. and V. Lehdonvirta. 2018. Online labour index: Measuring the online gig economy for policy and research. *Technological Forecasting and Social Change* 137: 241–248.

Kuek, S., C. Paradi-Guilfor, T. Fayomi, S. Imaizumi, and P. Ipeirotis. 2015. The global opportunity in online outsourcing. International Bank for Reconstruction and Development/The World Bank.

Kulich, C., G. Trojanowski, M. Ry, S. Haslam, and L. Renneboog. 2011. Who gets the carrot and who gets the stick? Evidence of gender disparities in executive renumeration. *Strategic Management Journal* 32, 301-321.

Lee, K., D. Kusbit, E. Metsky, and L. Dabbish. 2015. Working with machines: The impact of algorithmic and data-driven management on human workers. Proceedings of the Association for Computing Machinery (ACM) Conference on Human Factors in Computing Systems (CHI), Seoul, 18–23 Apr, pp. 1603–1612.

Lott, Y. 2014. Working-time flexibility and autonomy: A European perspective on time adequacy. *European Journal of Industrial Relations* 21(3): 259–274.

Makati Business Club (MBC). 2019. *Women in the C-Suite*. Makati City: Makati Business Club.

Mawii, Z. 2019. Feminist perspectives on the future of work in India. New Delhi: Friedrich-Ebert-Stiftung India Office. *https://www.fes-asia.org/news/feminist-perspectives-on-the-future-of-work-in-india/* (Accessed on December 26, 2020).

Möhlmann, M. and L. Zalmanson. 2017. Hands on the wheel: Navigating algorithmic management and Uber's autonomy. Proceedings of the International Conference on Information Systems (ICIS 2017), Seoul, 10 –13 Dec.

Organisation for Economic Co-operation and Development (OECD). 2018. Bridging the digital gender divide: Include, upskill, innovate. *http://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf.* (Accessed on December 26, 2020).

Organisation for Economic Co-operation and Development (OECD). 2017. Going digital: The future of work for women. *https://www.oecd.org/employment/Going-Digital-the-Future-of-Work-for-Women.pdf* (Accessed on December 26, 2020).

Otobe, N. 2017. Gender dimensions of employment trends and future of work: Where would women work next? Geneva: ILO. *www.ilo.org/employment/Whatwedo/Publications/working-papers/WCMS_613273/lang--en/index.htm.* (Accessed on December 26, 2020).

Payoneer. 2020. The state of freelancing during COVID-19. *https://blog.payoneer.com/freelancers/industry-tips-fl/freelancing-during-covid-19-report/* (Accessed on December 26, 2020).

PricewaterhouseCoopers (PWC). 2015. The sharing economy. Consumer Intelligence Series. *https://www.pwc.fr/fr/assets/files/pdf/2015/05/pwc_etude_sharing_economy.pdf* (Accessed on December 26, 2020).

Ross, J., L. Irani, M. Silberman, A. Zaldivar, and B. Tomlinson. 2010. Who are the crowdworkers?: Shifting demographics in mechanical turk. In Proceedings of the ACM Conference on Human Factors in Computing Systems. 2863–2872. *https://doi.org/10.1145/1753846.1753873*. (Accessed on December 26, 2020).

Rowntree, O. (2020). *Connected Women: The Mobile Gender Gap Report 2020.* London: GSMA.

Sakellariou, C. 2006. The use of quantile regressions in estimating gender wage differentials: a case study of the Philippines. *Applied Economics*, 36(9), 1001-1007.

Schmidt, F. 2017. Digital labour markets in the platform economy: Mapping the political challenges of crowd work and gig work. Bonn: Friedrich-Ebert Stiftung.

Serafica, R. and Q. Oren. 2020. Understanding the Costs and Benefits of Digital Platforms and the Implications for Policymaking and Regulation. PIDS Discussion Paper Series No. 2020-52. Quezon City: Philippine Institute for Development Studies.

Stanley, T. and S. B. Jarrell. 1998. Gender Wage Discrimination Bias? A Meta-Regression Analysis. *The Journal of Human Resources* 33(4): 947-973.

Stephany, F., M. Dunn, S. Sawyer, and V. Lehdonvirta. 2020. Distancing bonus or downscaling loss? The changing livelihood of US online workers in times of COVID-19. Forthcoming in the *Journal of Economic & Social Geography - Tijdschrift voor economische en sociale geografie.*

Tandrayen-Ragoobur, V. and R. Pydayya. 2015. Glass ceiling and sticky floors: hurdles for Mauritian working women. *Equality, Diversity and Inclusion: An International Journal* 34(5): 452-466.

United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). 2018. How to design inclusive social protection systems. *https://www.socialprotection-toolbox.org/files/documents/Social-Protection-module-2.pdf* (Accessed on January 31, 2021).

United Nations Conference on Trade and Development (UNCTAD). 2017. Information Economy Report 2017: Digitalization, Trade and Development. United Nations.

Valientes, R. 2015. Male-Female Wage-Gap Decomposition in Agriculture-Based Employment in the Philippines. *Journal of Economics, Management & Agricultural Development* 1(1): 45-62.

Vaughan, R. and R. Davario. 2016. Assessing the size and presence of the collaborative economy in Europe. Brussels: European Commission.

https://op.europa.eu/en/publication-detail/-/publication/2acb7619-b544-11e7-837e-01aa75ed71a1 (Accessed on December 26, 2020).

Weichselbaumer, D. and R. Winter-Ebmer. 2005. A Meta-Analysis of the International Gender Wage Gap. *Journal of Economic Surveys* 19(3): 479-511.

APPENDIX

Table A1: Respondents of the PIDS-DICT Online survey of Market and Non-Market Work

Responsible for survey roll-out	Respondents	Number of respondents	Online Survey roll out
Online training during the ECQ			
DICT	Affiliate marketing training	23	May 3–5, 2020
DICT	Social media marketing training	360	May 3–5, 2020
DICT	Digital marketing training	187	May 21–24, 2020
2nd phase of digitaljobsPH training program			
DICT	Virtual assistance training (Mati, Davao and Cotabato City)	33	August 27–September 3, 2020
	Social media marketing and Advertising (Cagayan Province)	15	October 16–20, 2020
	Graphics design (San Jose, Antique)	18	October 16–20, 2020
	Virtual assistance (Davao De Oro)	10	November 6–11, 2020
	Web development (Davao City)	10	November 5–11, 2020
	Virtual Assistance (Tagum City)	15	December 2–10, 2020
	Virtual Assistance (Bukidnon)	12	December 2–10, 2020
	Social Media Marketing (Sta. Cruz, Davao del Sur)	16	December 3–10, 2020
	Graphics Design (Cordillera)	9	December 7–10, 2020
	Digital Marketing and E Commerce (Antique)	16	December 7–10, 2020
	Virtual Assistance (Surigao del Sur)	1	December 4 – 31, 2020
	Social Media Marketing (Kabacan, North Cotabato)	12	December 14 – 31, 2020
	Digital Marketing (Camarines Sur)	2	December 14 – 31, 2020
	Social Media Marketing (Marawi City)	10	December 17 – 31, 2020
	Virtual Assistance (Rizal)	10	December 21 – 31, 2020
	Social Media Marketing (Malita, Davao Occidental)	1	December 21 – 31, 2020
	Social Media Marketing (General Santos City)	4	December 28 – 31, 2020
	Virtual Assistance (Tarlac)	17	December 28 – 31, 2020
	Social Media Marketing (Quezon)	5	December 28 – 31, 2020
Other survey roll-outs			
PIDS	Various DICT training in 2019	55	May 4–9, 2020
PIDS	Snowball sampling	14	May 4–9, 2020
	Total	**855**	

Table A2: Regression estimates

Probability of working on the platform§		Hours spent on the platform§§		Compensation/hour on the platform§§	
Female	0.23** [0.12]	Female	-0.31 [0.21]	Female	-0.04 [0.16]
Household head	0.22* [0.12]	Care work hours	0.58** [0.23]	Household head	0.18 [0.15]
Own home	0.18* [0.11]	Female*Care work hours	0.11 [0.15]	Own home	-0.11 [0.14]
Age	-0.04*** [0.01]	With non-PW	0.32 [0.47]	Age	0.06 [0.07]
Married	0.1 [0.12]	Female*With non-PW	-1.04** [0.52]	Married	0.25* [0.15]
At least college	0.09 [0.14]	With non-PW*Care work hours	-0.67** [0.33]	At least college	0.33** [0.16]
Belongs to HH with income at the lowest quintile	-0.23** [0.11]	Female*With non-PW*Care work hours	0.86** [0.37]	Belongs to HH with income at the lowest quintile	-0.08 [0.14]
Has income from other online sources	0.12 [0.11]	Care work hours squared	-0.25*** [0.08]	Has other online income	0.2 [0.14]
Has savings account	0.39*** [0.14]	Household head	0.23*** [0.09]	Has savings account	-0.01 [0.21]
With non-PW	-0.43*** [0.11]	Own home	-0.04 [0.09]	With non-PW	-0.46** [0.22]
Urban	-0.07 [0.12]	Age	-0.06 [0.05]	Negotiated the contract price	0.30** [0.14]
Contributes to SS fund	-0.04 [0.12]	Age squared	0.00 [0.00]	Specialized tasks	0.34 [0.22]
Has private health insurance	0.21* [0.12]	Married	0.08 [0.09]	Local platform	-0.32** [0.14]
Has paid training	0.13 [0.13]	At least college	-0.32*** [0.10]	Has training (paid)	0.32** [0.15]
Attended gov-sponsored training	-0.04 [0.12]	Belongs to HH with income at the lowest quintile	-0.17** [0.08]	Age squared	0.00 [0.00]
Did past-PW	1.18*** [0.11]	Has income from other online sources	-0.1 [0.08]		
		Has savings account	0.07 [0.11]		
		Contributes to SS fund	-0.18** [0.08]		
		Has private health insurance	-0.16* [0.09]		
		Has training (paid)	0.11 [0.09]		
		Specialized tasks	-0.57*** [0.13]		
		Local platform	0.02 [0.09]		
		Motivation: Flexibility	-0.2 [0.15]		
		Motivation: Money	0.38*** [0.15]		
		Motivation: Job	0,02 [0.84]		

Probability of working on the platform§		Hours spent on the platform§§		Compensation/hour on the platform§§	
Number of observations	854	N	214	N	381
LR chi2(16)	200	F-statistics (25, 187)	4.51	F-statistics (15, 364)	2.81
p-value	0.00	p-value	0.00	p-value	0.00
		R-squared: Within	0.38	R-squared: Within	0.10
		R-squared: overall	0.35	R-squared: overall	0.10

Notes: PW, platform work. */**/*** Significant at 10/5/1% level. Figures in [] are standard errors.
§ Probit regression. §§ Regression on panel data (1 month before the ECQ and past 12 months)