

## JOBS INTERRUPTED:

## THE EFFECTS OF COVID-19 IN THE LAC LABOR MARKETS\*



#### Main findings

- · Women, young workers, and those with low levels of education and limited internet connectivity were disproportionately affected by the economic downturn caused by the pandemic-related lockdowns in Latin America and the Caribbean. The gender and education differentials persisted throughout the initial six months of the pandemic, and they remain after considering individual, household, and job characteristics.
- · Most workers employed both before and after the COVID-19 outbreak remained in the same type of job and industry. The Covid-19 crisis also brought historically high levels of absences from work (those not working but with a job to return to), particularly for women and independent workers. Absences preceded job losses, with almost one in five absent workers losing their employment after two months.
- While countries continue to enhance their vaccination efforts, in the short run, active labor market policies accompanied by financial support and flexible work schedules are likely to remain necessary for the most vulnerable populations.

OVID-19 has upended people's lives around the world, particularly in terms of employment. To contain the spread of the disease, most Latin American and Caribbean (LAC) governments implemented measures for social distancing, minimized non-essential economic activities, and suspended in-person education services soon after the pandemic began. Despite the expansion of social protection programs and other emergency interventions (e.g., tax reliefs and deferment of social security contributions) for mitigating COVID-19's socio-economic impacts (De La Flor et al., 2021), the region's economy shrank by almost 7 percent in 2020 (World Bank, 2021a). Around 30 million became unemployed or left the labor force. Even among those who remained employed, working hours declined by 16 percent, 1 while labor income in the region dropped by about 10 percent compared to 2019 (ILO, 2020a and 2021).











<sup>\*</sup> This note was prepared by Carolina Mejía-Mantilla, Sergio Olivieri, Ana Rivadeneira, Gabriel Lara Ibarra, and Javier Romero, under the guidance of Ximena del Carpio, with the financial support from the Latin American and Caribbean Regional Vice Presidency. This document was edited by Oliver Balch.

<sup>1</sup> This is the equivalent of 39 million full-time jobs. (ILO, 2021)





Policy Note No.2 / May 202

Given the importance of labor income in the region, there are several important questions about the effects of Covid-19 on the labor market. At the outset of the pandemic, 48 percent of Latin American and Caribbean workers<sup>2</sup> stopped working and 16 percent lost their job.<sup>3</sup> Yet, were job losses similar for all workers? Has the COVID-19 shock exacerbated unfavorable labor market conditions for vulnerable groups over time? What happened to those workers who remained employed throughout the early months of the pandemic? And, what lessons can be drawn from the experience? This note sheds light on these inquiries using household data from the LAC High-Frequency Phone Surveys – HFPS (Box 1) – which were collected between May and August of 2020 from 13 countries in the region.

#### Box 1: The LAC High-Frequency Phone Survey

The World Bank conducted a multi-round High-Frequency Phone Survey (HFPS) to assess the impact of the coronavirus pandemic on the welfare of Latin American and Caribbean households. Between March and June 2020, the HFPS collected nationally representative information for thirteen countries: Argentina, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Paraguay, and Peru. The HFPS provides information on the welfare loss that households and people experienced with respect to food insecurity, changes in employment, income loss, access to health services and education, and coping mechanisms. Additionally, it documents household responses to lockdown and safe-distancing measures imposed by their governments and catalogues the behaviors they undertook to mitigate the spread of the disease. These socio-economic impacts are available at the COVID-19 High-Frequency Monitoring Dashboard, which provides 96 harmonized indicators across 50 countries in Latin America and the world. For further information on the LAC HFPS, see World Bank (2021b).





<sup>2</sup> In this note, 'LAC' or 'region' refers to the population of the 13 countries in Latin America and the Caribbean where the High Frequency Phone (HFPS) surveys were conducted. We use the traditional definition of employed population as those who either worked during the week before the survey or did not work but have a job to go back to (they were merely away or absent from work for reasons such as vacation, personal leave, illness, etc.).

<sup>3</sup> The difference between the percentage of people who stopped working and those who lost their job is temporary absence: i.e., those workers who did not work the week before the survey but maintained their job attachment. These workers stopped working but did not lose their jobs. We focus on job loss first and shed some light into the group of absent workers in the last part of this note.





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### Who were most affected by job losses?

Women, young workers, and those with low levels of education and internet connectivity were disproportionately affected. Two months into the pandemic, around 20 percent of female workers lost the jobs that they had prior to the pandemic, eight percentage points higher than their male counterparts (Figure 1). Similarly, over a quarter of young workers (18 to 24 years old) were left without work, compared to 14 percent of workers aged 25 to 64 years old. Workers with tertiary education and those with internet access at home also experienced job losses at a lower rate.

These differentiated impacts remain even after considering the variation in individual, household, and job characteristics. For instance, men were more likely to keep their jobs than women even when controlling for having school-aged children in the household. This suggests that women were more likely to lose their jobs because of increased childcare responsibilities, which confirms the results of Cucagna and Romero (2021) using the same dataset. Individuals with tertiary education were almost twice as likely to remain employed than those with primary education, while having internet increased the odds by 83 percent (Annex Table 1).<sup>4</sup>

Overall, job loss rates declined over time but some of the gaps remained. For instance, a four-point gender gap, a seven-point experience gap, and an eight-point internet access gap were still present in August 2020. Once more, the gender and education gaps observed in August 2020 are robust to the inclusion of controls (Annex Table 2). The former could lead to important setbacks in terms of gender equality in the labor market and with respect to other economic and intrahousehold imbalances (Cucagna and Romero, 2021). Likewise, the observed education gap reflects a pervasive inequality in which individuals with higher education have more stable jobs, work in sectors less affected by containment measures, and are employed in activities more amenable to telework (ECLAC, 2020; ILO 2020c and 2020d).





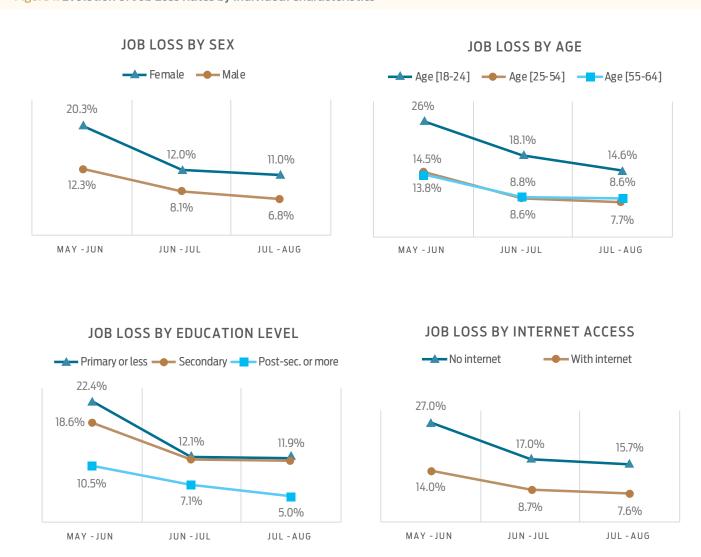
<sup>4</sup> Internet access here could not only measure the ability to work from home – only between 7 and 16 percent of workers in LAC countries have jobs that would allow them to work from home (Delaporte & Werner, 2020) — but it could capture other favorable characteristics that make workers less vulnerable in the first place, such as formal employment.

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Figure 1. Evolution of Job Loss Rates by Individual Characteristics



Note: Working-age population (18 to 64 years old). Wave 1 was collected in May-June, wave 2 in June-July, and wave 3 in July-August 2020. For wave 1, job loss is calculated by comparing the present to the pre-pandemic situation of workers. For waves 2 and 3, we compare to waves 1 and 2, respectively.

Source: LAC High-Frequency Phone Surveys (HFPS) 2020.





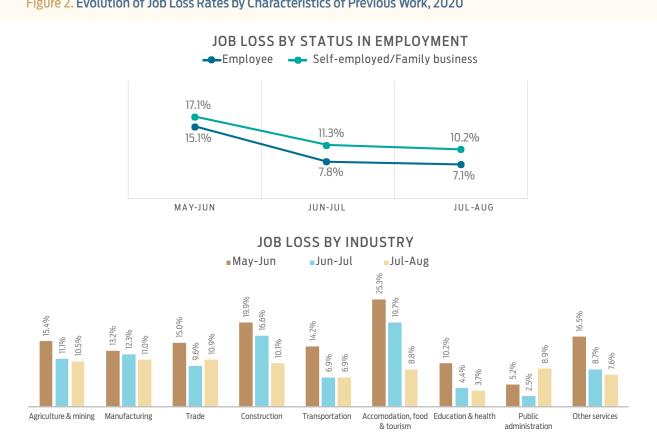
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Job losses are conditioned by employment characteristics such as formality, employment status, and economic sector, as these convey different economic risks. In general, independent workers (i.e., self-employed and those with a family business), who are more likely to work informally, exhibited higher job-loss rates than wage employees (Figure 2). This is consistent with the finding that in Peru, formality (defined as having a written contract or a tax identification number) was more important for job retention than the ability to work from home (Cueva et al., 2021). Similarly, 20 percent of those working in construction lost their jobs, while the rate reached 25 percent for those working in food preparation, accommodation, and tourism. Independent workers in these subsectors had a lower probability of keeping their employment, even after controlling for other relevant variables using econometric analyses (Annex Tables 1 and 2).

Figure 2. Evolution of Job Loss Rates by Characteristics of Previous Work, 2020



Note: Working-age population (18 to 64 years old). Wave 1 was collected in May-June, wave 2 in June-July, and wave 3 in July-August 2020. For wave 1, job loss is calculated by comparing the present to the pre-pandemic situation of workers. For waves 2 and 3, we compare to waves 1 and 2, respectively. Source: LAC High-Frequency Phone Surveys (HFPS) 2020.

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## What happened to those who remained employed?

Most workers employed both before and after the COVID-19 outbreak remained in the same type of job and industry. In the region, an average of 5 percent of the employed population changed their pre-pandemic job (with the precise figure varying from 3 to 9 percent in the individual countries). However, transitions between types of employment were relatively small (Table 1), contrary to what was widely hypothesized. By August 2020, around 8 percent of wage workers before the pandemic had started a business on their own, while nearly 5 percent made the reverse transition. This resulted in a net increase of 3 percentage points in self-employment. Yet, 87.5 percent of workers observed in August 2020 retained the status they had before the pandemic. Similarly, transitions between economic sectors were relatively small between March and May 2020. By July 2020, however, this transition rate had increased to 15 percent. Notably, 6 percent of the employed population left the services sector for the construction and manufacturing sector.

Table 1. Transitions between status in employment

|                                 | Employment May-Jun 2020          |                  |       |  |  |  |  |  |  |  |
|---------------------------------|----------------------------------|------------------|-------|--|--|--|--|--|--|--|
| Employment<br>Pre-pandemic      | Self-employed<br>/ Fam. Business | Wage<br>Employee | Total |  |  |  |  |  |  |  |
| Self-employed<br>/Fam. Business | 35.1                             | 0.4              | 35.4  |  |  |  |  |  |  |  |
| Wage Employee                   | 1.9                              | 62.6             | 64.6  |  |  |  |  |  |  |  |
| Total                           | 37.0                             | 63.0             | 100.0 |  |  |  |  |  |  |  |

|                                 | Employment Jul-Aug 2020          |                  |       |  |  |  |  |  |  |  |
|---------------------------------|----------------------------------|------------------|-------|--|--|--|--|--|--|--|
| Employment<br>Pre-pandemic      | Self-employed<br>/ Fam. Business | Wage<br>Employee | Total |  |  |  |  |  |  |  |
| Self-employed<br>/Fam. Business | 31.3                             | 4.8              | 36.2  |  |  |  |  |  |  |  |
| Wage Employee                   | 7.7                              | 56.1             | 63.8  |  |  |  |  |  |  |  |
| Total                           | 39.0                             | 61.0             | 100.0 |  |  |  |  |  |  |  |

Source: LAC High-Frequency Phone Surveys (HFPS) 2020.

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<sup>5</sup> Using data from HFPS in the COVID-19 Monitoring Global Dashboard, De La Flor et al. (2021) consider job changes to be between 4 and 14 percent in LAC countries, as a proportion of only those who actually worked (excluding those absent from work). In this note, absentees are included as part of the employed population.

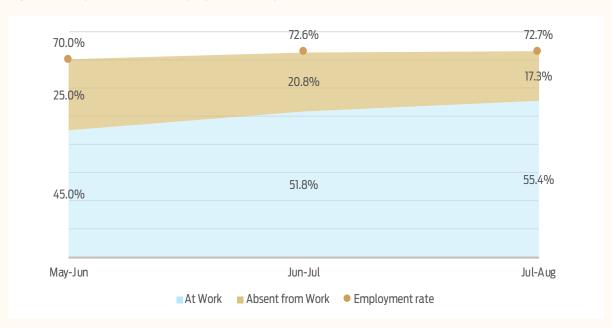




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At the outset of the pandemic, one in four workers did not work during the reference week despite having a job to which they expected to return. Individuals absent from work are traditionally considered as part of the employed population. However, the COVID-19 pandemic increased the number of absences from work as well as the level of uncertainty as to whether and when people could return to their jobs. While the proportion of absent workers decreased from 25 percent in May 2020 to 17 percent in August 2020, over two-thirds of those absent in May continued to be absent three months later (Figure 4). Women and independent workers reported higher absence rates, which underscores their vulnerable position in the labor market. Similarly, a large proportion of those working in the service and tourism sectors also reported being absent: trade (43 percent); tourism, accommodation, and food preparation (57 percent); and transportation (42 percent).





Source: LAC High-Frequency Phone Surveys (HFPS) 2020.







<sup>6</sup> The International Labor Organization addressed this issue in their Technical Note, "Monitoring labour markets amid lockdowns to contain the COVID-19 virus: Essential labour force survey content and treatment of special groups". Available at: <a href="https://rtc-cea.cepal.org/sites/default/files/rtc\_connected/files/ILO-technical%20note-april-2020">https://rtc-cea.cepal.org/sites/default/files/rtc\_connected/files/ILO-technical%20note-april-2020</a> 0.pdf





Throughout the pandemic, job losses were preceded by absences from work. Only half of absent workers went back to work between May and August 2020 (Figure 5). Of those who did not return to work, meanwhile, almost 4 out of 10 did not do so because they had lost their job. This evidence underlines the uncertainty associated with this status (i.e., absence from work). In circumstances of high and pervasive economic uncertainty, absent workers should therefore be considered as part of the target population for income-protection policies and even for training and job-placement interventions.

PEOPLE ABSENT FROM WORK MAY-JUN 2020 Did not have a iob in Jul/Aug At work 50.1% in Jul/Aug 31.6% Absent from work in Jul/Aug

Figure 5. Transition of absent workers in May/June 2020

Source: LAC High-Frequency Phone Surveys (HFPS), 2020.

### Lessons learned

High levels of uncertainty characterized the labor markets of the region during Covid-19. Millions of jobs were lost and absence rates were unprecedentedly high. Governments made significant efforts to buffer the impacts of the crisis by activating social protection policies and by targeting workers not usually covered by social insurance schemes, such as informal workers (De La Flor et al., 2020; IADB, 2020). In the short term, financial support and flexible work schedules will likely continue to be necessary for the most vulnerable. Over the medium run, it is important that countries complement social assistance from formal wage employment with other alternative sources (World Bank, 2019; World Bank 2021c). Equally important is the promotion of programs to reskill or upskill the labor force so as to reintegrate workers (World Bank, 2019; Beylis et al., 2020).

Female workers in the region were amongst the most negatively impacted, reversing the achievements of recent decades. Our results show that women's employment was disproportionally affected. This was partly because of an increase in household and caregiving responsibilities and partly due to a decline in the activities in which they were predominantly employed (especially informal activities in the services sector). The longer it takes women to re-enter the labor market, the larger the consequences on their future working conditions and in overall productivity.





<sup>7</sup> ILO (2020c), Cucagna and Romero (2021) and Khamis et al. (2021) reach similar conclusions.





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Their return can be accelerated by active labor market policies in the short run and by medium-term policies aimed at increasing access to care services for children and the elderly. Similarly, maintaining and improving teleworking (ideally, with flexible work schedules for both men and women) could play an important role in balancing professional and family responsibilities (ILO, 2020d).

After the initial impact of the pandemic on young workers, the slow recovery represents a challenge. At the same time, we observe that job losses were disproportionately high for under-25s. Because of the pronounced economic downturn and an expected slow recovery, there are fewer entry-level vacancies and fewer hires in general. Additionally, firms are more likely to re-hire or hire more experienced workers (ECLAC and ILO, 2020b). As with women, policies must actively support their placement and improve their employability to avoid affecting their employment and income trajectories in the future. Subsidies to reduce the cost of hiring young workers during the first stages of economic recovery have proven to be effective (ECLAC and ILO, 2020b).

The pandemic demonstrated the urgency to expand access to digital technologies and revealed the importance of digital skills. Our results show that connectivity and the possibility of teleworking protected some of the jobs in the region. Moreover, digital services and ecommerce have surged during the pandemic. However, more than half of the region's population cannot take advantage of the digital economy. Countries must promote digital skills among the workforce. Similarly, they must expand connectivity and increase affordable access to the internet by investing in infrastructure for digital transformation.









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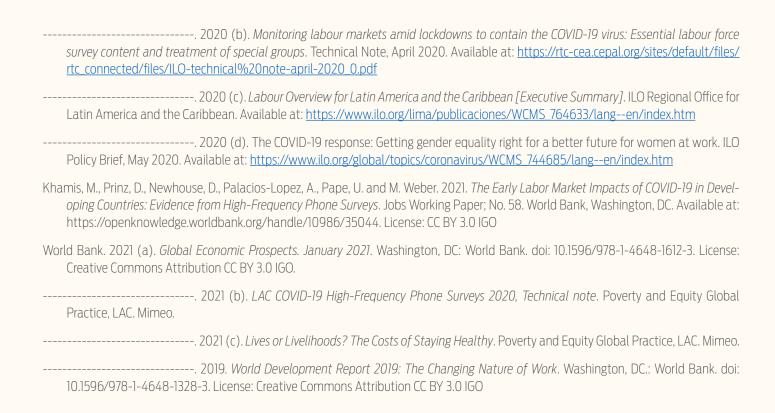




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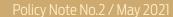












### Appendix Table 1: Logistic regression odds ratios for keeping employment between pre-pandemic and May/June 2020

| Pr(keep_job)                   | (1)              |     | (2)            |     | (3)            |     | (4)            |     | (5)            |     | (6)      |     |
|--------------------------------|------------------|-----|----------------|-----|----------------|-----|----------------|-----|----------------|-----|----------|-----|
| Male                           | 1.4272           | *   | 1.3946         | *   | 1.4272         | *   | 1.4140         | *   | 1.3933         | *   | 1.4278   | *   |
|                                | (0.2031)         |     | (0.2006)       |     | (0.2289)       |     | (0.2312)       |     | (0.2283)       |     | (0.2371) |     |
| Child                          | 0.6854           | **  | 0.6903         | **  | 0.6455         | *** | 0.6452         | *** | 0.6343         | *** | 0.6712   | **  |
|                                | (0.0803)         |     | (0.0828)       |     | (0.0835)       |     | (0.0855)       |     | (0.0849)       |     | (0.0914) |     |
| Male#Child                     | 1.5193           | *   | 1.5378         | *   | 1.6441         | *   | 1.6638         | *   | 1.6982         | **  | 1.6804   | *   |
|                                | (0.2720)         |     | (0.2789)       |     | (0.3244)       |     | (0.3333)       |     | (0.3414)       |     | (0.3423) |     |
| Age                            | 1.1484           | *** | 1.1438         | *** | 1.1653         | *** | 1.1621         | *** | 1.1629         | *** | 1.1628   | *** |
|                                | (0.0263)         |     | (0.0269)       |     | (0.0298)       |     | (0.0307)       |     | (0.0307)       |     | (0.0306) |     |
| Age <sup>2</sup>               | 0.9985           | *** | 0.9986         | *** | 0.9983         | *** | 0.9984         | *** | 0.9983         | *** | 0.9983   | *** |
|                                | (0.0003)         |     | (0.0003)       |     | (0.0003)       |     | (0.0003)       |     | (0.0003)       |     | (0.0003) |     |
| Edu_second                     | 1.3919           | **  | 1.3426         | *   | 1.3085         |     | 1.2643         |     | 1.2603         |     | 1.2375   |     |
|                                | (0.1781)         |     | (0.1777)       |     | (0.1888)       |     | (0.1885)       |     | (0.1864)       |     | (0.1898) |     |
| Edu_third                      | 2.3590           | *** | 2.2508         | *** | 1.9751         | *** | 1.8863         | *** | 1.8667         | *** | 2.0905   | *** |
|                                | (0.3263)         |     | (0.3234)       |     | (0.3109)       |     | (0.3057)       |     | (0.3011)       |     | (0.3492) |     |
| Internet                       | 1.8839           | *** | 1.9005         | *** | 1.7711         | *** | 1.8045         | *** | 1.8300         | *** | 1.7021   | *** |
|                                | (0.2023)         |     | (0.2071)       |     | (0.2177)       |     | (0.2266)       |     | (0.2310)       |     | (0.2247) |     |
| Wage_employee                  | <u> </u>         |     | 1.0708         |     |                |     | 0.8419         |     | 3.8093         | **  | 3.9721   | **  |
|                                |                  |     | (0.0960)       |     |                |     | (0.0973)       |     | (1.7734)       |     | (1.9401) |     |
| Agriculture & mining           |                  |     | , ,            |     | 0.7741         |     | 0.7366         |     | 3.2501         | *   | 4.2411   | **  |
|                                |                  |     |                |     | (0.1846)       |     | (0.1862)       |     | (1.7050)       |     | (2.3428) |     |
| Manufacturing                  |                  |     |                |     | 0.8577         |     | 0.8586         |     | 1.7811         |     | 2.1351   |     |
|                                |                  |     |                |     | (0.2073)       |     | (0.2117)       |     | (1.1350)       |     | (1.4879) |     |
| Construction                   |                  |     |                |     | 0.4926         | *   | 0.4653         | **  | 2.1885         |     | 2.3011   |     |
|                                |                  |     |                |     | (0.1422)       |     | (0.1374)       |     | (1.3125)       |     | (1.4664) |     |
| Trade, transp. & comm.         |                  |     |                |     | 0.8151         |     | 0.7823         |     | 2.9061         | *   | 3.3690   | *   |
| ridde, tidrispi d commi        |                  |     |                |     | (0.1423)       |     | (0.1461)       |     | (1.3546)       |     | (1.6553) |     |
| Public admin. & utilities      |                  |     |                |     | 0.9840         |     | 1.0087         |     | 1.6683         |     | 1.7576   |     |
| r obtic dariiii a ottices      |                  |     |                |     | (0.2690)       |     | (0.2823)       |     | (1.2489)       |     | (1.2498) |     |
| Accom., food, other services   |                  |     |                |     | 0.6221         | **  | 0.6153         | **  | 3.2063         | *   | 3.3241   | *   |
| riccorni, rood, other services |                  |     |                |     | (0.1001)       |     | (0.1043)       |     | (1.5118)       |     | (1.6395) |     |
| Wage#Agric                     |                  |     |                |     | (0.1001)       |     | (0.10 15)      |     | 0.1874         | **  | 0.1466   | **  |
| Waselinsiic                    |                  |     |                |     |                |     |                |     | (0.1101)       |     | (0.0891) |     |
| Wage#Manuf                     |                  |     |                |     |                |     |                |     | 0.4652         |     | 0.3491   |     |
| Trage in Marion                |                  |     |                |     |                |     |                |     | (0.3200)       |     | (0.2602) |     |
| Wage#Const                     |                  |     |                |     |                |     |                |     | 0.1821         | *   | 0.1782   | *   |
| Wage in const                  |                  |     |                |     |                |     |                |     | (0.1238)       |     | (0.1266) |     |
| Wage#Trade                     |                  |     |                |     |                |     |                |     | 0.2502         | **  | 0.2185   | **  |
| Wagen Hade                     |                  |     |                |     |                |     |                |     | (0.1252)       |     | (0.1144) |     |
| Wage#PublicAdmin               |                  |     |                |     |                |     |                |     | 0.5646         |     | 0.4920   |     |
| Wagem obticamin                |                  |     |                |     |                |     |                |     | (0.4541)       |     | (0.3786) |     |
| Wage#ServicesOther             |                  |     |                |     |                |     |                |     | 0.1573         | *** | 0.1547   | *** |
| Wage#SelvicesOther             |                  |     |                |     |                |     |                |     | (0.0786)       |     | (0.0804) |     |
| cons                           | 0.1091           | *** | 0.1148         | *** | 0.1381         | *** | 0.1752         | **  | 0.0434         | *** | 0.0178   | *** |
| _cons                          | (0.0509)         |     | (0.0552)       |     | (0.0754)       |     | (0.1008)       |     | (0.0304)       |     | (0.0178  |     |
| Country-level fixed effects    | (0.0309)<br>No   |     | (0.0552)<br>No |     | (0.0754)<br>No |     | (0.1008)<br>No |     | (0.0304)<br>No |     | Yes      |     |
| ·                              |                  |     | 9400           |     | 8303           |     |                |     |                |     |          |     |
| N<br>Chi <sup>2</sup>          | 9615<br>221.9727 |     |                |     |                |     | 8088           |     | 8088           |     | 8088     |     |
|                                |                  |     | 210.2265       |     | 188.1927       |     | 175.5991       |     | 191.1116       |     | 296.9252 |     |
| Pseudo D?                      | 0.0000           |     | 0.0000         |     | 0.0000         |     | 0.0000         |     | 0.0000         |     | 0.0000   |     |
| Pseudo R <sup>2</sup>          | 0.0595           |     | 0.0577         |     | 0.0642         |     | 0.0625         |     | 0.0674         |     | 0.0963   |     |

Exponentiated coefficients; Standard errors in parentheses.

<sup>\*</sup> p<0.05 \*\* p<0.01 \*\*\* p<0.001





| Pr(keep_job)                 | (1)      |     | (2)      |     | (3)      |     | (4)                |         | (5)      |    | (6)      |   |
|------------------------------|----------|-----|----------|-----|----------|-----|--------------------|---------|----------|----|----------|---|
| Male                         | 1.7261   | *   | 1.7189   | *   | 1.9583   | *   | 1.9632             | *       | 1.9810   | *  | 1.9686   | * |
|                              | (0.4640) |     | (0.4736) |     | (0.5716) |     | (0.5864)           |         | (0.5976) |    | (0.5900) |   |
| Child                        | 0.7421   |     | 0.7518   |     | 0.7605   |     | 0.7666             |         | 0.7523   |    | 0.7773   |   |
|                              | (0.1594) |     | (0.1659) |     | (0.1795) |     | (0.1859)           |         | (0.1835) |    | (0.1904) |   |
| Male#Child                   | 1.0268   |     | 0.9758   |     | 1.0294   |     | 0.9657             |         | 0.9620   |    | 0.9553   |   |
|                              | (0.3526) |     | (0.3404) |     | (0.3830) |     | (0.3650)           |         | (0.3656) |    | (0.3531) |   |
| Age                          | 1.1006   | *   | 1.0821   |     | 1.0990   |     | 1.0768             |         | 1.0732   |    | 1.0702   |   |
|                              | (0.0481) |     | (0.0477) |     | (0.0548) |     | (0.0541)           |         | (0.0536) |    | (0.0535) |   |
| Age2                         | 0.9990   |     | 0.9992   |     | 0.9990   |     | 0.9992             |         | 0.9993   |    | 0.9993   |   |
|                              | (0.0005) |     | (0.0005) |     | (0.0006) |     | (0.0006)           |         | (0.0006) |    | (0.0006) |   |
| Edu_second                   | 1.1115   |     | 1.1337   |     | 1.1598   |     | 1.2001             |         | 1.2403   |    | 1.2329   |   |
|                              | (0.2309) |     | (0.2357) |     | (0.2618) |     | (0.2715)           |         | (0.2807) |    | (0.2844) |   |
| Edu_third                    | 2.3980   | *** | 2.5016   | *** | 2.0362   | *   | 2.1128             | **      | 2.1077   | ** | 2.1197   | * |
|                              | (0.5928) |     | (0.6272) |     | (0.5698) |     | (0.5875)           |         | (0.5884) |    | (0.6043) |   |
| Internet                     |          | **  | 1.6978   | *   | 1.3357   |     | 1.2615             |         | 1.2582   |    | 1.1617   |   |
| THE THE T                    | (0.3846) |     | (0.3762) |     | (0.3285) |     | (0.3244)           |         | (0.3271) |    | (0.3174) |   |
| Wage_employee                | (0.30+0) |     | 1.2633   |     | (0.5205) |     | 1.1980             |         | 5.7126   | *  | 6.4426   | * |
| wage_employee                |          |     | (0.2103) |     |          |     | (0.2224)           |         | (4.2658) |    | (4.8480) |   |
| Agriculture & mining         |          |     | (0.2103) |     | 0.4342   |     | 0.3233             | **      | 0.7518   |    | 0.9163   |   |
| Agriculture & Hilling        |          |     |          |     | (0.1941) |     | (0.1288)           |         | (0.5723) |    | (0.7018) |   |
| Manufacturing                |          |     |          |     | 0.4091   |     | 0.3082             | *       | 2.8583   |    | 2.6170   |   |
| vialiotactoring              |          |     |          |     | (0.2040) |     | (0.1475)           |         | (2.8341) |    | (2.6003) |   |
| Construction                 |          |     |          |     | 0.3800   |     |                    | **      | 4.7729   |    | 5.2078   | _ |
| Construction                 |          |     |          |     |          |     | 0.2505             | 11.11   |          |    |          |   |
| Trado transport 0, somm      |          |     |          |     | (0.2152) | *   | (0.1332)<br>0.3154 | ***     | (4.5563) |    | (5.0730) | _ |
| Trade, transport. & comm.    |          |     |          |     | 0.4318   | ٠,٠ |                    | 4-4-4   |          |    |          |   |
| D. J. II 0                   |          |     |          |     | (0.1676) |     | (0.1075)           | 4       | (0.8853) |    | (1.0042) |   |
| Public admin. & utilities    |          |     |          |     | 0.4315   |     | 0.2879             | ጥ       | 0.6541   |    | 0.7919   |   |
| A                            |          |     |          |     | (0.2301) |     | (0.1472)           | ale ale | (0.7806) |    | (0.9126) |   |
| Accom., food, other services |          |     |          |     | 0.5756   |     | 0.4032             | **      | 1.8389   |    | 1.9534   |   |
|                              |          |     |          |     | (0.2156) |     | (0.1316)           |         | (1.3371) |    | (1.4472) |   |
| Wage#Agric                   |          |     |          |     |          |     |                    |         | 0.7114   |    | 0.5502   |   |
|                              |          |     |          |     |          |     |                    |         | (0.6330) |    | (0.4858) | _ |
| Wage#Manuf                   |          |     |          |     |          |     |                    |         | 0.0717   | *  | 0.0727   | * |
|                              |          |     |          |     |          |     |                    |         | (0.0790) |    | (0.0802) |   |
| Wage#Const                   |          |     |          |     |          |     |                    |         | 0.0347   | ** | 0.0325   | * |
|                              |          |     |          |     |          |     |                    |         | (0.0384) |    | (0.0361) |   |
| Wage#Trade                   |          |     |          |     |          |     |                    |         | 0.1987   | *  | 0.1842   | * |
|                              |          |     |          |     |          |     |                    |         | (0.1631) |    | (0.1512) |   |
| Wage#PublicAdmin             |          |     |          |     |          |     |                    |         | 0.3647   |    | 0.2853   |   |
|                              |          |     |          |     |          |     |                    |         | (0.4773) |    | (0.3641) |   |
| Wage#ServicesOther           |          |     |          |     |          |     |                    |         | 0.1618   | *  | 0.1599   | * |
|                              |          |     |          |     |          |     |                    |         | (0.1309) |    | (0.1314) |   |
| cons                         | 0.5525   | *** | 0.7024   |     | 1.3858   |     | 2.6968             |         | 0.7449   |    | 0.5126   |   |
|                              | (0.4845) |     | (0.6366) |     | (1.5498) |     | (2.8934)           |         | (0.8728) |    | (0.6167) |   |
| Country-level fixed effects  | No       |     | No       |     | No       |     | No                 |         | No       |    | Yes      |   |
| V                            | 5432     |     | 5339     |     | 4391     |     | 4302               |         | 4302     |    | 4302     |   |
| Chi <sup>2</sup>             | 47.4631  |     | 47.6021  |     | 59.1239  |     | 70.7262            |         | 97.5483  |    | 143.8856 |   |
| р                            | 0.0000   |     | 0.0000   |     | 0.0000   |     | 0.0000             |         | 0.0000   |    | 0.0000   |   |
| Pseudo R <sup>2</sup>        | 0.0501   |     | 0.0516   |     | 0.0511   |     | 0.0563             |         | 0.0678   |    | 0.0878   |   |

Exponentiated coefficients; Standard errors in parentheses.

<sup>\*</sup> p<0.05 \*\* p<0.01 \*\*\* p<0.001