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DISCUSSION PAPER SERIES

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# ABSTRACT

## Back to Work: The Unequal Effects of the COVID-19 Pandemic on Ecuador's Labor Market*

Using the 2021 and 2022 HFPS for Ecuador, the paper investigates the labor market trajectories of different socio-economic groups. The analysis shows that the employment of older individuals, less-educated workers, and women fell disproportionately. However, while the recovery between 2021 and 2022 was slower for the first two groups, females experienced a faster rebound, even though still remained below pre-pandemic levels. The estimates also suggest that the recovery was slower for parents, despite the practically complete return to in-person instruction. The paper's more novel findings refer to the employment of Venezuelan migrants. The pandemic lowered their employment rate by a similar magnitude as for Ecuadorians. However, between 2021 and 2022, the employment and average work hours of Venezuelan migrants increased substantially faster than for natives, possibly because of their lower ability to rely on savings. The data also show that most of the increase in their labor supply stemmed from Venezuelan households without children, suggesting that Venezuelan families were less able to cope with the uncertainty associated with the return to in-person schooling.



**JEL Classification:** O15, J61, D3

**Keywords:** migration, COVID-19, Ecuador, forced migration, Venezuelans



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# 1 Introduction

In most countries, the Covid-19 pandemic triggered a massive and sudden loss of economic activity in the second quarter of 2020, followed by a remarkable rebound over the following year. While labor market dynamics exhibited a similar behavior, the return to pre-pandemic levels has been slowed down by persistently low labor force participation rates.

The pandemic also hit hard Latin American economies. Between 2019 and 2020, GDP in the region fell by almost 7%. Simultaneously, labor force participation fell by 3 percentage points and the unemployment rate increased by a similar amount (CEPAL (2022)). During 2021, the economy of the region also exhibited vigorous growth. However, by the end of 2021, the employment to population ratio remained 9 percentage points lower than its pre-pandemic level, labor income has not fully recovered, food insecurity remains high and inequality has increased (WorldBank (2021)).

Our main goal is to examine how the uneven evolution of employment and work hours across sociodemographic groups during the Covid-19 pandemic may have affected income inequality. More specifically, we will consider the labor market trajectories of various groups along several dimensions: age, gender, education, parenthood and nativity. Clearly, we are not the first to examine the labor market effects of the pandemic. Adams-Prassl et al. (2020) study employment dynamics in the US, UK and Germany, Farre et al. (2022) focus on Spain, and Berniell et al. (2021) on Latin America. Another related study is Hatayama et al. (2021) who use firm survey data (from Jordan and Georgia) to investigate job losses associated with the Covid-19 pandemic. They conclude that job losses were primarily due to a reduction in demand (rather than in labor supply), driven by global supply disruptions and confinement measures. However, these studies have focused on the initial impact of the pandemic and have not examined the recovery period. Additionally, these authors have analyzed the heterogeneous effects of the pandemic along by age, gender and education, but have not examined the effects on families with children or economically vulnerable populations, such as forcibly displaced migrants.[1]

Our analysis is based on Ecuador, one of the main host countries for Venezuelan migrants, which will allow us to provide insights into how the pandemic has affected the labor market outcomes and economic well-being of forcibly displaced populations. This question remains largely unexplored and our findings will be highly relevant for other

[1]We provide more detail on the existing literature further below.

Latin American countries with large immigrant populations.[2] In particular, we will analyze whether school closures affected the labor supply of Ecuadorian and Venezuelan migrant parents differently, which could be expected given the differences between the two groups in terms of savings, access to public services and availability of alternative childcare arrangements (Olivieri et al. (2021)).

Our analysis relies on two waves of the High Frequency Phone Survey (HFPS) conducted in Ecuador in (the second quarter) of years 2021 and 2022. These surveys provide a window into key stages of the economic recovery. In particular, we are able to gauge the transition back to in-person schooling. As our data shows, the vast majority of children attended schools only virtually (i.e. remotely) in 2021Q2, whereas practically all were back to in-person instruction one year later. Our analysis focuses on two key labor market indicators: the employment to population ratio (or employment rate) and the average weekly work hours (conditional on employment). These indicators allow us to examine both the extensive and intensive margins of labor supply, and draw implications regarding earnings and labor income.[3]

Our analysis delivers several findings. Confirming previous studies, we show that the employment of older individuals, less-educated workers, and women was hit particularly hard. However, while the employment recovery between 2021 and 2022 was slower for the first two groups, females experienced a faster rebound. We also show that the recovery was slower for Ecuadorian households with school-age children, despite the practically complete return to in-person instruction.

Our more novel findings refer to the employment trajectories of Venezuelan migrants. Initially, the employment rates (and work hours) for this population were substantially higher than for natives. The spread of the pandemic in the second quarter of 2020 led to a similarly sharp reduction in the employment rates of both groups (by 13-14 percentage points). However, between 2021 and 2022, the employment and average work hours of Venezuelan migrants increased substantially faster than for natives, possibly because of their lower ability to rely on savings. The data also show that most of the increase in their labor supply stemmed from Venezuelan households without children, suggesting that Venezuelan families were less able to cope with the uncertainty associated with the return to in-person schooling and the class-level or individual-level confinements of

[2]It is estimated that more than 6 million people have left Venezuela since 2016. The main host countries for Venezuelan migrants are Colombia (2.0 million), Peru (with over 1.0 million) and Ecuador (with over 0.45 million). Venezuelan migrants account for about 3% of Ecuador's overall population.

[3]Because the pandemic has affected labor force participation rates, the employment rate is a more informative variable than the unemployment rate.

children that came in close contact with a Covid-positive individual.

Our paper is related to the literature on the labor-market effects of the Covid-19 pandemic. One of the earliest studies to address this question was Adams-Prassl et al. (2020). The authors conducted real-time surveys in the US, UK and Germany as the Covid-19 pandemic was spreading in 2020. They documented cross-country differences in the initial labor-market impact of the pandemic. In addition, they also found that the employment of less educated workers and women was more negatively affected, as well as that of workers in occupations that were less amenable to remote operations.[4] Farre et al. (2022) also conducted a household survey in 2020 in Spain, aimed at measuring not only the effects on employment but also on housework, paying particular attention to the intra-household sharing of the increased burden. They found that employment losses were more prevalent among low-skilled workers and college-educated women. They also documented that men increased their role in home production, but the burden continued to be disproportionately borne by women. Most closely related to our study, Berniell et al. (2021) also use the HFPS but focused on the onset of the pandemic (in 2020). Their main contribution was the construction of occupation-specific measures of the potential for work from home. They documented larger employment losses for women and for workers in occupations where remote work was less viable.

The structure of the paper is as follows. Section 2 presents our data. Section 3 compares the labor-market trajectories of different groups defined by age, gender and educational attainment using simple averages. Section 4 estimates models that allow for employment recoveries that vary by parenthood status. Section 5 gathers our main conclusions.

## 2 Data: the High-Frequency Phone Survey

In 2021 and 2022, The World Bank conducted several waves of phone surveys across Latin America to assess the impact of Covid-19, known as the *COVID-19 High-Frequency Phone Surveys* (or HFPS). The survey was administered to one adult per household. Each respondent was presented with both individual and household-level questions.[5]

[4] Adams-Prassl et al. (2022) document negative effects of the lockdowns on the mental health of women. Rodriguez-Planas (2022) surveyed college students at a public university in the United States and found that low-income students were more negatively affected in their economic and educational outcomes.

[5] All national samples were based on a dual frame of cell and landline phones, and selected as a one-stage probability sample, with geographic stratification of landline numbers. Survey estimates represent

Our focus here is on the surveys for Ecuador conducted in the second quarters of 2021 and 2022. More specifically, we consider two separate HFPS datasets for each of the two years. The first dataset is nationally representative of the population and Ecuador and we shall refer to this dataset as *HFPS-Ecuador*. The second dataset is based on a survey (with essentially the same questionnaire) that was addressed exclusively to Venezuelan migrants in Ecuador, which we shall refer to as *HFPS-VzOnly*.[6] Next, we present some basic descriptive statistics for these datasets.

## 2.1 Ecuadorian natives

Table 1 presents the data corresponding to *HFPS-Ecuador* for 2021q2 and 2022q2.[7] As can be seen in the first row of the Table, the sample sizes are 951 in 2021Q2 and 1,106 in 2022Q2. When applying survey weights the 'elevated' total is 10.9 million individuals for both years. The second row of the Table reports the number of observations for foreign-born individuals. In 2021Q2, we only have 32 observations, increasing to 58 in the 2022Q2 wave. Even though the majority of these observations pertain to Venezuelan migrants, the sample is too small to be useful for inference on this population.[8]

Due to these constraints, we will use the *HFPS-Ecuador* data to examine the labor market outcomes for Ecuador natives only, and conduct a separate analysis on Venezuelan-born individuals living in Ecuador using the separate *HFPS-VzOnly* dataset containing many more observations for this population.[9]

Let us begin by examining the *pre-pandemic* employment rate ($ER0$), defined as the ratio between the number of individuals that reported employment status prior to spread

households with a landline or at least one cell phone and individuals of 18 years of age or above who have an active cell phone number or a landline at home. For more details, see (Flores Cruz, 2021).

[6]Sampling low-prevalence populations, like Venezuelan migrants in Ecuador, avoiding very large-scale samples requires specifically tailored strategies. In the case of the HFPS in Ecuador, we relied on a high-quality sampling frame of mobile cellphone numbers of Venezuelan migrants in Ecuador through a partnership with Ecuador's largest mobile phone provider. This strategy had already been used as the basis for an earlier survey (known as EPEC) and described in detail in Olivieri et al. (2021). The HFPS aimed at Venezuelan migrants in Ecuador is representative of adult Venezuelan migrants, their households, children 0-4 years of age and children 5-17 in those households.

[7]Even though we will soon restrict to individuals born in Ecuador in our estimation, this table includes also the foreign-born.

[8]In addition, in the 2021Q2 wave, Venezuela-born individuals were pooled with other origin countries in the *Other immigrants* category. The situation was slightly better in the 2022q2 sample, which contained 58 foreign-born individuals, 45 of which reported being born in Venezuela. At any rate, these are small samples of little use to estimate the labor market outcomes of Venezuelans in Ecuador.

[9]Nonetheless the summary statistics below include also foreign-born individuals to facilitate the comparison between the descriptive statistics presented here to those obtained using any other nationally representative survey.

of the virus and the population age 18 or above. As shown in columns 4-5, depending on which of the two surveys we focus on, the pre-pandemic employment rate ranges between 0.72 and 0.75.[10]

Next, we turn to the estimated employment rates at the times the surveys were implemented (denoted by $ER1$). In 2021Q2, the employment rate was estimated to be 0.62, about 10 percentage points lower than at the onset of the pandemic. This large drop makes clear the devastating impact of the Covid-19 pandemic on employment in Ecuador. Equally remarkable is the speed of the recovery. The 2022Q2 survey data reveals that the employment rate had climbed by 5 percentage-points in the span of one year, reaching 0.67. While this rate was still well below the pre-pandemic value, it clearly indicates a rapid and vigorous economic recovery.

The Table also reports average weekly work hours (conditional on employment) prior to the onset of the pandemic and at the time of the surveys. Pre-pandemic, average work hours were about 44 hours per week among all workers in Ecuador. By 2021Q2, work hours had fallen dramatically to 35 hours per week. In contrast to the pattern observed for employment rates, weekly work hours fell further (by almost 1 hour) between 2021 and 2022. Thus, while many people were able to return to work, their work hours remained well below pre-pandemic levels.

The Table also reports the share of formal employment (relative to overall employment). Pre-pandemic, the formality rate was 0.42. By 2021Q2, the corresponding value was 9 percentage points lower. As was the case for work hours, the rate of formality remained low (or even fell slightly) between 2021 and 2022. Hence, while employment was on an upward trajectory in 2021-2022, work hours (and hence, earnings) and the quality of employment remained stagnant.[11]

Last, Table 1 also reports average socio-demographic characteristics. As expected, the share of urban respondents, the share of female, and the age and education distributions are very similar in the two waves of the survey. It is more interesting to turn our attention to the bottom of the table, which reports information regarding the number of families with school-age children and the changes in the mode of instruction between 2021 and 2022. The Table shows that the share of households with school-age children

[10]Most likely, the estimate based on the 2021Q2 survey is more reliable and, thus, less subject to recall bias as it was closer in time to the onset of the pandemic. Hence, we focus more heavily on the values obtained using the 2021Q2 survey.

[11]We also examined the evolution of the rate of self-employment. However, the format of the question used to construct the rate of self-employment changed between the two surveys and, as a result, the resulting estimates are not reliable.

(ages 5 to 17) was estimated to be around 40% in both survey years. However, the share of these parents whose kids attended school in person changed dramatically between 2021 and 2022. In the second quarter of 2021, only 2% of these households reported in-person schooling for their children. In contrast, the corresponding value rose to 98% one year later.[12] As will shall see later, the return to in-person schooling was not as rapid for Venezuelan households.

## 2.2 Venezuelan migrants

Let us now turn to the dataset that contains only Venezuelan migrants residing in Ecuador (*HFPS-VzOnly*). Table 2 summarizes the data. Importantly, the sample sizes are fairly large: 401 observations in 2021Q2 and 356 in 2022Q2. When applying survey weights the 'elevated' total is approximately 294,000 individuals for both years.[13]

The recall questions in the 2021Q2 survey reveal a *pre-pandemic* employment rate of 0.89, which was 16 points higher than for Ecuadorians. Not surprisingly, the spread of the virus and the resulting restrictions on work and mobility led to a drastic reduction in the employment rate of Venezuelan migrants. By 2021Q2, their employment rate ($ER1$) had fallen 14 percentage-points (to 0.75). As was the case for Ecuadorians, over the course of the following year, the employment rate of Venezuelans bounced back vigorously, exhibiting a remarkable 7 percentage-point increase between the two surveys.

Turning now to weekly work hours, the data indicate that the average Venezuelan worker spent about 48 hours per week working prior to the pandemic. By 2021, the corresponding value was 11-hours lower per week, which is practically the same reduction we estimated for Ecuadorian workers. However, between 2021 and 2022, our estimates indicate a 2-hour increase in average work hours for Venezuelans, which contrasts with the 1-hour reduction exhibited by Ecuadorian workers.

The rate of formal employment also fell among Venezuelan workers. Pre-pandemic, the formality rate among employed Venezuelans stood at 0.35. The pandemic brought the level down to 0.31 in 2021Q2 and it stayed essentially at the same level (or slightly lower) one year later.

In regards to the demographic information, it is only worth noting that the share of urban residents is much larger among Venezuelan migrants than among natives (by about

[12] Likewise, the share of parents whose children were in virtual schooling fell from 99% in 2021Q2 to 12% in 2022Q2.

[13] Clearly, the weights were chosen so as to match the estimated number of Venezuelan migrants in Ecuador (based on the *EPEC* survey described in Olivieri et al. (2021)).

20 percentage points). Not surprisingly, the data also show that Venezuelan migrants are younger, on average, than Ecuadorians. What is more remarkable is the large share of college graduates among Venezuelan migrants (estimated at 48%), which is almost 5 times the value for Ecuador-born individuals. This finding confirms the estimates reported in Olivieri et al. (2021), who discuss in details the policy implications of this observation.

Last, let's examine the information regarding the schooling of children for Venezuelan households. The data show that the share of Venezuelan households with school-age children (ages 5 to 17) was around 36% in 2021, about 5 percentage-points lower as in the case of Ecuadorians. As was the case among Ecuadorians, the share of parents whose kids attended school in person changed dramatically between the two survey years: from 1% in 2021Q2 to 95% in 2022Q2. Likewise, the share with children in virtual school fell from 99% to 19% over the period. While the return to in-person schooling was very robust for Venezuelan children, it is worth highlighting that the share of Venezuelan children attending school in person in 2022Q2 was 3 percentage-points lower than for Ecuadorian children. Similarly, the share of Venezuelan children reporting virtual schooling in 2022Q2 was 7 percentage-points higher than among Ecuadorian children.

# 3 An unequal recovery? Differences by age, education and gender

This section presents a simple descriptive analysis that compares the labor-market recovery of different socio-economic groups. Several studies have documented highly asymmetric labor-market effects of Covid-19, which hit particularly hard females, older individuals and less-educated workers (Adams-Prassl et al. (2020), Farre et al. (2022), Berniell et al. (2021)).

By employing HFPS data for years 2021 and 2022, our analysis complements the work of Berniell et al. (2021) by providing a window into the recovery period (and by analyzing both the extensive and intensive margins of labor supply). We are particularly interested in identifying if any group lagged behind and whether inequality in the labor market increased as a result. For our analysis, we restrict the samples to individuals age 18-70. For each of the sample years (2021Q2 and 2022Q2), we aggregate individual-level observations (using survey weights) to compute two labor market outcomes: employment

rate and weekly work hours (conditional on employment).

The results of our analysis are collected in Table 3. The top panel refers to employment rates while the second focuses on the intensive margin of labor supply, that is, working hours conditional on employment. Importantly, except in column 9, all means are computed on the sample of Ecuador-born individuals. The first three rows in each panel report the estimated employment rates at three points in time: pre-pandemic (based on the recall questions in the 2021Q2 survey), in 2021Q2 and in 2022Q2.

Column 1 reports values for the native population. The employment rate fell 14 percentage points between the onset of the pandemic and 2021Q2 (i.e. an 18% drop). However, between (the second quarters) of 2021 and 2022, the employment rate increased by 5 percentage points. This pattern can be more easily seen in Figure 1 (top panel). Over the same time period, weekly work hours remained practically unchanged and the share of formal employment in overall employment fell by about 1 percentage-point.[14] Hence, while there was a vigorous (but partial) response along the extensive margin of employment, average work hours simply stopped falling further between 2021 and 2022.

Next, we examine the labor-market trajectories along several socio-demographic dimensions.

## 3.1 Age

To examine the trajectories of individuals in different *age* groups, we partition the sample in two groups: age 18-40 (column 2) and age 41-70 (column 3). Interestingly, the increase in employment between 2021 and 2022 was particularly pronounced for the youth, whose employment rate recovered 8 of the 11 percentage-points lost between the onset of the pandemic and 2021, as reported in Table 3 (column 2). Similarly, their working hours also increased rapidly between 2021 and 2022, by an average of more than 6 hours per week.

In stark contrast, the data in column 3 illustrate the much larger reduction in the employment of older individuals since the onset of Covid-19: the employment rate for this group fell by 19 percentage-points since the onset of the pandemic (middle panel in Figure 1).). Additionally, their work hours fell by 9 hours per week. Between 2021 and 2022, the employment rate for this group increased by much less than for other groups (only by 4 percentage points), and the work hours actually fell further (by 4 hours per

[14]The small discrepancies with Table 1 are due to the fact that we are now restricting the sample to Ecuador-born individuals.

week) between the two years. These dynamics make clear the age-asymmetric risk of Covid on the population and how this translated into widely diverging labor-market trajectories.

## 3.2 Education

To analyze the evolution of employment and work hours as a function of *educational attainment*, we again partition the Ecuadorian population in three groups: those with at most primary education ($Edu1$), those with completed secondary education ($Edu2$) and those that completed tertiary education ($Edu3$). As shown in Table 1 , the distribution of Ecuador's population (in 2021) over these three educational groups was 41%, 49% and 10%, respectively.[15]

Table 3 clearly shows that the effects of the pandemic were acutely asymmetric across education groups. In terms of employment, the pandemic hit hardest low-educated individuals, whose employment rate fell by 22 percentage points (column 4). Additionally, conditional on employment, average work hours for low-educated workers fell by almost 7 hours per week. In contrast, as illustrated in the middle panel in Figure 1, the employment rate of college-educated workers remained practically the same between the beginning of the pandemic and 2021 (falling by only 2 percentage-points), even though average work hours did fall substantially (column 5).

Between 2021 and 2022, the employment rates of low-educated workers began to turn around, but only by a small amount. Between these two years, the employment rate for this group increased only by 4 percentage-points and working hours continued falling sharply (by about 7.5 hours per week). In stark contrast, the employment rate and work hours of college-graduates actually increased between 2021 and 2022.

Thus, in terms of their employment and work hours, college-educated workers emerged from the pandemic practically unscathed. The situation was dramatically different for low-educated workers. As of the middle of 2022, their employment rates and work hours remained very far from the pre-pandemic values. Thus, inequality in labor market outcomes widened dramatically along the educational dimension in Ecuador, similar to what has been reported for other countries (Farre et al. (2022)).

To recap, the pandemic had a much larger impact on the employment of older individuals and on those with lower levels of education. These groups not only experienced

[15]The educational population shares reported in Table 1 include foreign-born individuals, but that group only accounts for 3% of the overall population.

larger employment losses, but also participated to a much lesser extent in the general labor-market recovery that took place between 2021 and 2022.

### 3.3 Gender

We begin by comparing the employment (and work hours) trajectories of male and female adults. As seen in Table 3 (column 6) and illustrated in the bottom panel of Figure 1, the reduction in employment was more severe for women. Relative to the pre-pandemic level, the female employment rate had fallen by 19 percentage points by 2021, compared to a 14 percentage-point reduction for the overall population. However, the recovery of employment between 2021 and 2022 was similar for men and women: the female employment rate increased by 6 percentage-points, about a 1 percentage-point higher increase than for the population as a whole. Similarly, the increase in average work hours was higher for females than for overall employment (by about 2 hours per week). In sum, while women were hit harder than men by the pandemic in terms of employment, they experienced a slightly faster rebound between years 2021 and 2022, although their 2022 labor supply remained well below pre-pandemic levels.

## 4 Parental employment and the return to in-person schooling

The pandemic entailed an increase in housework for most families due to the difficulties for meeting basic needs, such as shopping for food or other consumption items. However, parents with school-age children experienced an additional surge in family responsibilities due to the shutdown of in-person instruction and the switch to virtual schooling, compounded by the need to keep grandparents and older relatives in relative isolation. These worldwide trends also reshaped family dynamics in Ecuador.[16]

### 4.1 Unconditional trajectories

We begin by examining school dynamics in regards to in-person instruction. As can be seen in Table 1 (columns 4 and 5), in the middle of 2021, the vast majority of students in Ecuador (99%) were receiving virtual (remote) education. The situation had

[16]For details on the impacts and policy responses to Covid-19 in Ecuador and elsewhere in Latin America, see CEPAL (2022).

changed dramatically one year later. By the middle of 2022, the children in 98% of households were receiving in-person instruction. At the same time, the share of students receiving virtual instruction was 12%, probably because some students were rotating which students were in the classroom in a particular week, or because children were sent home when they were considered close-contacts to a Covid-positive individual. At any rate, it is fair to say that, between 2021 and 2022, Ecuador's schools overwhelmingly shifted back to in-person instruction.

Let us now examine the trajectories of parents' employment and work hours (columns 7 and 8 in Table 3) using simple averages. Confirming previous studies, the pandemic hit the employment of mothers much harder than fathers' employment.[17] Compared to pre-pandemic levels, the employment rate of mothers was 23 percentage-points lower in 2021, while the reduction in the employment rate of fathers was only 5 percentage points, as shown in the bottom panel of Figure 1. Interestingly, the average work hours of fathers and mothers were impacted similarly, with reductions of about 11 hours per week (conditional on employment).

All parents, regardless of gender, experienced a similar recovery between 2021 and 2022. The employment rates of mothers and fathers increased by about 2 percentage-points. However, mothers experienced a 3.5-hour increase in weekly work hours whereas fathers suffered a 1-hour reduction over the same period.

It is important to notice that parents were the group experiencing the smallest increases in employment rates between 2021 and 2022. Thus, despite the physical reopening of schools, the labor supply of parents may have remained constrained by the uncertainty of having to care for children whenever sent home due to a close-contact with someone infected with Covid and the additional housework associated with the pandemic. It is also worth noting that the symmetric employment recovery of fathers and mothers may have been possible by the husbands' greater involvement in housework during the pandemic, as hinted at in Farre et al. (2022) in their analysis for Spain. Our estimates also show that, as of 2022Q2, the average weekly work hours of Ecuadorian parents remained well below their pre-pandemic levels (by 8 and 12 hours for mothers and fathers, respectively).

[17] Adams-Prassl et al. (2022) document negative effects of the lockdowns on the mental health of women.

## 4.2 Conditional employment trajectories

The goal of this section is to dig deeper on the reasons for the diverging employment trajectories of households with and without school-age children during the recovery period (2021-2022). By controlling for a wide range of individual characteristics, we hope to isolate more cleanly the role played by the increased family responsibilities associated with the initial lack of in-person schooling and the uncertainties regarding when a given class might need to go into home confinement. Furthermore, we will conduct the analysis separately for the samples of Ecuadorians and Venezuelan migrants, since the degree of school uncertainty may have varied across the two groups.

Our analysis in this section begins with a simple specification that estimates the average trajectory in the (probability of) employment for individual $i$ in year $t = 0, 1$, conditional on individual characteristics:[18]

$$y_{i,t} = \alpha_0 + \beta T1_t + X'_{it}\Lambda + \varepsilon_{i,t}, \tag{1}$$

where the dependent variable is an indicator for employment status for individual $i$ in year $t$, $\alpha_0$ is the baseline level of the outcome (in 2021Q2), $T1_t$ is an indicator for period 1 (i.e. 2022Q2) and $\beta$ is the average increase in the probability of employment. Last, $X_i$ is a vector of $K$ individual characteristics (with coefficients vector $\Lambda = (\lambda_1, ..., \lambda_K)$). These characteristics account for individual differences by age, education, gender and urban status.

We will also estimate a more flexible model that allows for different employment trajectories on the basis of parenthood status:

$$y_{i,t} = \alpha_0 + \beta_0 T1_t + \alpha_1 Parent_i + \beta_1 T1_t \times Parent_i + X'_{it}\Lambda + \varepsilon_{i,t}, \tag{2}$$

where $\alpha_0$ is now the baseline employment probability for non-parents and $\beta_0$ is the increase in employment for the same group. In turn, $\alpha_0 + \alpha_1$ is the baseline value for parents and $\beta_0 + \beta_1$ is their average increase in employment. Naturally, $\beta_1$ is the difference in the change for parents relative to non-parents.

Let us consider first the employment trajectories for the sample of Ecuadorian natives. Columns 1 and 2 in Table 4 provide estimates for the simple model in Equation (1). As we knew from the earlier descriptive statistics, the baseline employment probability was 0.63, and the average increase between 2021 and 2022 was 5 percentage points.

[18] Period 0 refers to 2021Q2 and period 1 to 2022Q2.

Column 2 controls for individual characteristics, which does not affect the average increase in the probability of employment, but makes clear the large baseline penalties for women (28 percentage points), youth (11 percentage points), older workers (23 percentage points) and less educated workers (9 percentage points relative to college graduates). It is also worth noting that parents had a higher baseline employment rate, estimated to be around 6 percentage points higher than non-parents with similar characteristics.

Following Equation (2), we next allow for differences in the employment change between 2021 and 2022 on the basis of parenthood. As can be seen in column 3, the increase in the probability of employment for individuals with school-age children is estimated to be 3 percentage-points lower than for similar individuals without children. This is a large effect, as it halves the degree of recovery, but it is worth noting that the precision of the estimates is low and we cannot reject the null hypothesis of equal changes for parents and non-parents.

To investigate whether the 2021-2022 employment recovery was different for mothers than for fathers, columns 4 and 5 estimate the model separately on the female and male subsamples. The estimates in column 4 suggest a 5 percentage-point smaller increase in the employment rate of mothers relative to childless women with similar characteristics (although the precision of this estimate is low). Similarly, the estimates also suggest a smaller increase in the employment rate of fathers, relative to childless men with similar characteristics. Thus, the evidence points to a slower employment recovery among parents, relative to observationally similar childless individuals, but the large standard errors do not allow us to draw definitive conclusions.

In sum, even though there was a general increase in employment, the recovery appears to have been smaller for individuals with children. This suggests that "school uncertainty" may have constrained the labor supply of parents.

## 4.3 Venezuelan migrants

Despite their high average educational levels, Venezuelan migrants in Ecuador are an economically vulnerable population, employed in low-paying jobs and with high rates of informality and working long hours (Olivieri et al. (2021, 2022)). Let us examine if the recession ignited by the pandemic affected this population in a similar manner to native workers in Ecuador.

Let us begin with a simple comparison between the employment trajectories of Venezuelan migrants and Ecuador natives. Column 9 in the Table 3 reports labor-

market outcomes for Venezuelan migrants. Prior to the onset of the pandemic, the employment rate among Venezuelans in Ecuador was 89%, 13 percentage points higher than for Ecuadorians (column 1). The pandemic inflicted a similar employment loss to the two groups (13-14 percentage points). However, the employment recovery in 2021-2022 was faster among Venezuelans: 7 percentage points, compared to 5 percentage points among Ecuadorians, as can be seen in the top panel of Figure 2 and in column 6 of Table 4. This may have reflected the more limited financial resilience of Venezuelan migrants due to lower savings (Olivieri et al. (2021)).

Let us now turn to the estimation of Equation (2) on the sample of Venezuelan migrants, which allows for different rates of recovery for migrant parents and non-parents. The estimates are displayed in columns 7-10 of Table 4. Column 7 shows that the employment rate for Venezuelan women in 2021 was 14 percentage-points lower than for Venezuelan men with similar characteristics. The estimates also reveal a clear employment premium for the college-educated among the Venezuelan population in Ecuador. Column 8 estimates employment trajectories that are allowed to differ by parenthood status. The estimates show that the increase in the probability of employment between 2021 and 2022 was 11 percentage points for non-parents. In addition, the estimates also show that the employment rate for Venezuelans with school-age children did not increase at all between years 2021 and 2022. As discussed above, the increase in employment for natives with children was also lower than for natives without children, but the estimates suggested an (imprecisely estimated) small positive increase in their employment (of approximately 3 percentage-points).

Columns 9 and 10 in Table 4 estimate model Equation (2) separately for Venezuelan males and females. In the female sample, the probability of employment increased by 14 percentage-points, whereas for mothers with similar characteristics the increase was estimated to be 8 percentage points lower. In the case of childless men, their probability of employment increased by 9 percentage points between 2021 and 2022, whereas it *fell* by 11 percentage points for fathers (as seen also in the bottom panel of Figure 2).

Recapitulating, our estimates show that, between 2021 and 2022, Venezuelan migrants returned to work more rapidly than natives. However, this increase was primarily driven by childless Venezuelans. Those with school-age children experienced smaller increases in employment than their native counterparts. In particular, the probability of employment among Venezuelan fathers fell substantially between 2021 and 2022.

These findings suggest that Venezuelan parents suffered from a higher degree of "school uncertainty." Perhaps their children's schools returned to in-person instruction

more slowly than the schools for the average native family. Alternatively, even though their children's schools might have had similar rates of in-person instruction as those attended by the children of natives, Venezuelan families may have lacked an alternative childcare arrangement in case their children were sent into home confinement in the event of close contact with a Covid-positive individual.[19]

## 4.4 Mode of instruction and parental employment

We can examine the relationship between in-person instruction and parents' labor supply more directly by focusing on households with school-age children and estimating a model where the dependent variable is the employment indicator (or weekly work hours) and the right-hand side includes an indicator for whether the children were able to attend school in person plus sociodemographic controls. Table 6 presents the estimates.[20] The first three columns in the top panel refer to Ecuadorian households and do not uncover any relationship between in-person schooling and the probability of parental employment. Similarly, we do not find a significant effect of in-person instruction on the weekly work hours of Ecuadorian working parents (bottom panel).

Remarkably, a different picture emerges from the estimates for Venezuelan parents (columns 4-6).[21] In 2021Q2, when only a very small minority of children were able to attend school in person, we observe a very large positive effect on the employment probability and work hours of Venezuelan parents. These findings suggest that Ecuadorian parents were able to continue working during the period of remote instruction (most of 2021), whereas Venezuelan parents were much less likely to remain employed if their children were not schooled in person. It is plausible that these differences were related to differences in the occupations of both groups, with Ecuadorian workers more likely to be employed in occupations where remote work was feasible (Berniell et al. (2021)).[22]

[19] Table 5 presents analogous estimates for weekly work hours. The estimates are inconclusive in regards to the changes in work hours between 2021 and 2022 due to lack precision. Nonetheless, it is clear that in 2021 employed Venezuelans worked more hours than employed Ecuadorians, and this gap widened between 2021 and 2022 by about 2 hours per week. While Ecuadorians reduced work hours, Venezuelans increased them.

[20] The bottom of Table 6 reports the rates of in-person schooling, by year and nativity. For Ecuadorians, the share of households with in-person instruction was 2% in 2021Q2 and 98% in 2022Q2. For Venezuelans, the corresponding rates were 1% and 94%, respectively.

[21] An important caveat is that our estimates in this section rely on a limited amount of variation because of the practically complete switch in instruction mode between the two surveys.

[22] An important number of Venezuelan migrants in Ecuador lack work or residence permits. This is one reason why their occupations appear largely disconnected to their educational attainment and their earnings are surprisingly low (Olivieri et al. (2021), Ortega and Hsin (2022)).

# 5 Conclusions

Our exploration of the impact of the Covid-19 pandemic on Ecuador's labor market, and the rapid recovery that followed, has delivered several findings. Along the lines of the findings of other studies (in other contexts), the employment of older individuals, less-educated workers, and women fell disproportionately. However, while the employment recovery between 2021 and 2022 was slower for the first two groups, females experienced a faster rebound. Our estimates also suggest that the recovery was slower for Ecuadorian households with school-age children, despite the practically complete return to in-person instruction.

Our more novel findings refer to the employment trajectories of Venezuelan migrants. Initially, the employment rates (and work hours) for this population were substantially higher than for natives. The spread of the pandemic in the second quarter of 2020 led to a similar, sharp reduction in the employment rates of both groups (by 13-14 percentage points). However, between 2021 and 2022, the employment and average work hours of Venezuelan migrants increased substantially faster than for natives, possibly because of their lower ability to rely on savings. The data also show that most of the increase in their labor supply stemmed from Venezuelan households without children, suggesting that Venezuelan families were less able to cope with the uncertainty associated with the return to in-person schooling.

All in all, our analysis suggests that the pandemic has had unequal effects across the population. Substantial negative employment effects persist for older individuals, those with lower education levels and women with children. Perhaps surprisingly, some economically vulnerable groups, such as Venezuelan migrants, exhibited substantial resiliency, in the sense of a fast employment recovery. However, this resiliency probably reflects their inability to afford staying out of the labor market due to limited savings.

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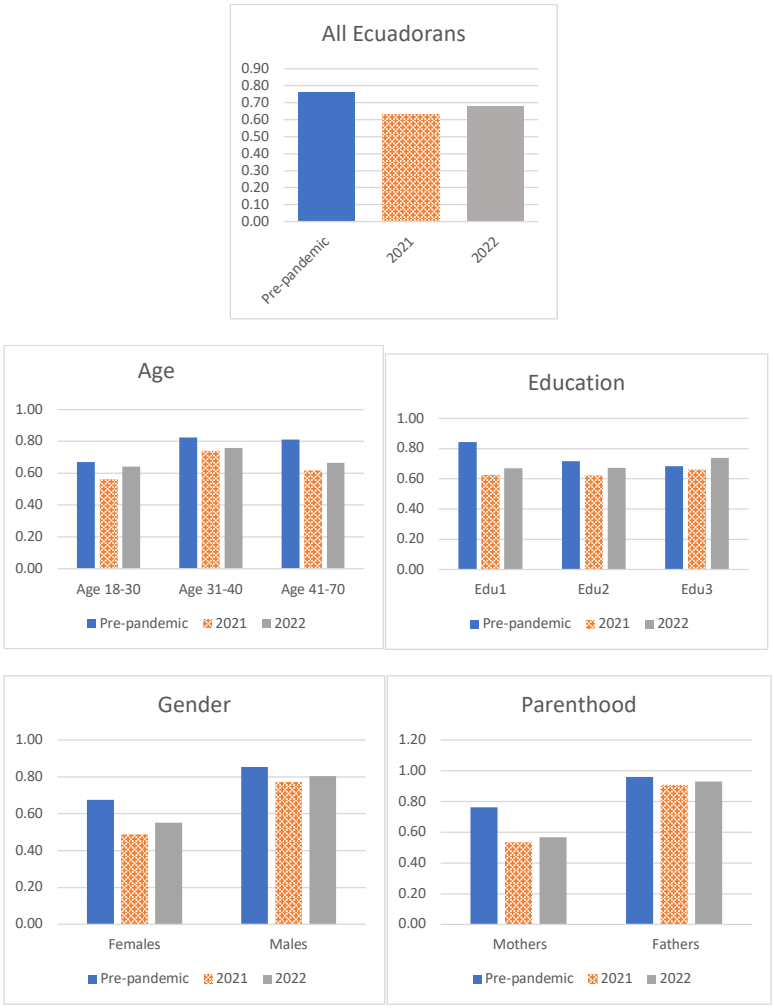
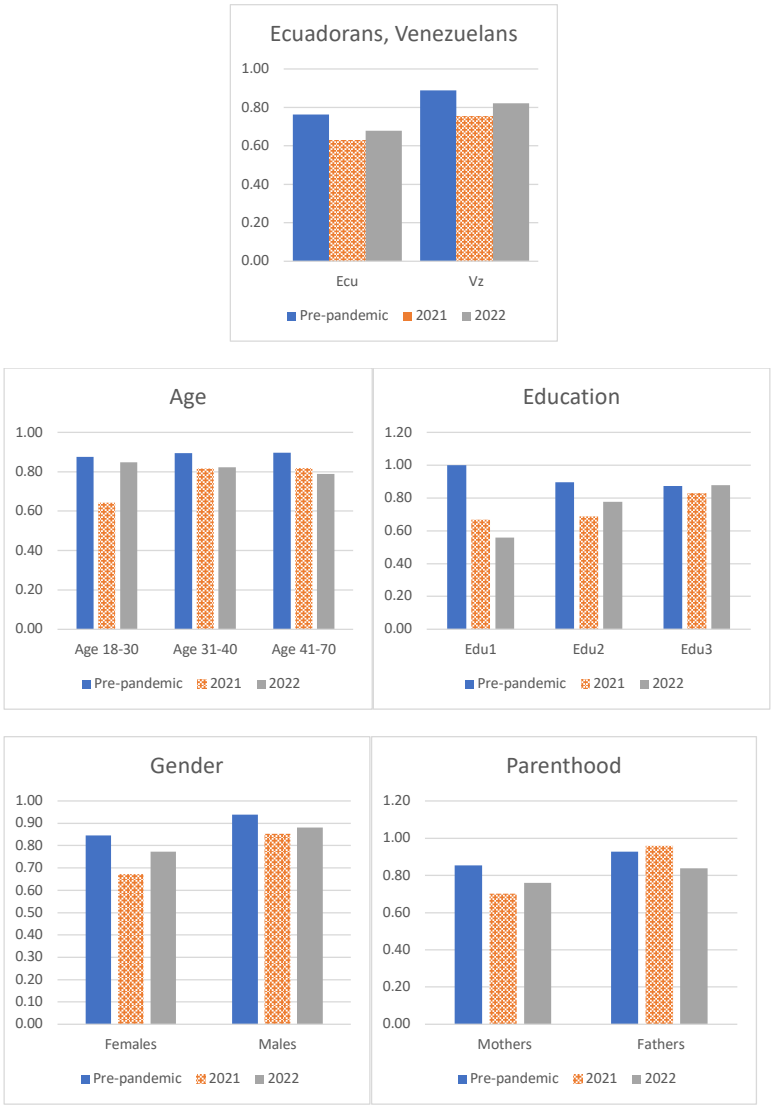
Figure 1: Employment rate Ecuadorians: pre-pandemic, 2021Q2 and 2021Q4




Notes: Averages computed using survey weights (as in Table 3). Only Ecuador-born individuals included. Population restricted to ages 18-70.

Figure 2: Employment rate Venezuelans: pre-pandemic, 2021Q2 and 2021Q4




Notes: Averages computed using survey weights (as in Table 3). Only Venezuelan migrants included. Population restricted to ages 18-70.

Table 1: Sample means - HFPS Ecuador

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| HFPS | Ecu | Ecu | Ecu | Ecu | Ecu | Ecu |
| Weights | No | No | No | Yes | Yes | Yes |
| Year | 2021 | 2022 | 2022/2021 | 2021 | 2022 | 2022/2021 |
| Obs. Pop. | 951 | 1,106 | 1.16 | 10,900,000 | 10,900,000 | 1.00 |
| Obs. FBorn | 32 | 58 | 1.81 | 187,071 | 379,944 | 2.03 |
| Obs. Vz. | NA | 45 | NA | NA | 291,457 | NA |
| Obs. OtherIm | 32 | 13 | 0.41 | 187,071 | 88,487 | 0.47 |
| Share FB | 0.03 | 0.05 | 1.56 | 0.02 | 0.03 | 2.03 |
| Share Vz | NA | 0.04 | NA | NA | 0.03 | NA |
| ER0 | 0.73 | 0.70 | 0.96 | 0.75 | 0.72 | 0.96 |
| ER1 | 0.64 | 0.66 | 1.03 | 0.62 | 0.67 | 1.08 |
| Hours0 (if emp0) | 43.22 | 43.39 | 1.00 | 44.21 | 43.22 | 0.98 |
| Hours1 (if emp1) | 35.15 | 34.89 | 0.99 | 34.94 | 34.03 | 0.97 |
| Formality0 (if emp0) | 0.46 | 0.44 | 0.97 | 0.42 | 0.36 | 0.87 |
| Formality1 (if emp1) | 0.38 | 0.36 | 0.94 | 0.33 | 0.32 | 0.96 |
| Share Urban | 0.70 | 0.67 | 0.96 | 0.63 | 0.61 | 0.96 |
| Female | 0.59 | 0.59 | 1.00 | 0.51 | 0.51 | 1.00 |
| Share Age1830 | 0.36 | 0.35 | 0.98 | 0.33 | 0.33 | 1.01 |
| Share Age3140 | 0.25 | 0.26 | 1.05 | 0.23 | 0.22 | 0.97 |
| Share Age4155 | 0.26 | 0.24 | 0.93 | 0.24 | 0.25 | 1.03 |
| Share Age56plus | 0.14 | 0.15 | 1.11 | 0.21 | 0.21 | 0.99 |
| Edu1 | 0.21 | 0.20 | 0.98 | 0.41 | 0.34 | 0.83 |
| Edu2 | 0.46 | 0.49 | 1.08 | 0.49 | 0.55 | 1.11 |
| Edu3 | 0.34 | 0.30 | 0.91 | 0.10 | 0.11 | 1.12 |
| Share with children517 | 0.40 | 0.40 | 1.00 | 0.41 | 0.40 | 0.96 |
| Avg. number children | 0.64 | 0.67 | 1.05 | 0.68 | 0.68 | 1.00 |
| Share with 3 or more children | 0.05 | 0.06 | 1.36 | 0.06 | 0.06 | 1.08 |
| Share kids enrolled (if parent) | 0.98 | 0.97 | 0.99 | 0.98 | 0.96 | 0.98 |
| Share kids attend (if parent) | 0.88 | 0.94 | 1.07 | 0.85 | 0.93 | 1.10 |
| Share in-person (if parent) | 0.01 | 0.97 | 108.11 | 0.02 | 0.98 | 54.63 |
| Share virtual (if parent) | 1.00 | 0.13 | 0.13 | 0.99 | 0.12 | 0.12 |

Notes: $ER0$ is the employment rate prior to the pandemic (based on recall questions to the respondents), $ER1$ is the current employment rate at the time of the survey. Employment rates are defined as the ratio between employed and the population age 18 or above. Similar definitions apply to weekly work hours ($Hours0$, $Hours1$) and the rates of formality ($Formality0$, $Formality1$). Virtual schooling is the same as remote schooling. Children refers only to children ages 5 to 17. Source HFPS Ecuador (not merged) for 2021Q2 and 2022Q2. All questions refer to the respondent (not the household head).

Table 2: Sample means - HFPS VzOnly

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| HFPS | VzOnly | VzOnly | VzOnly | VzOnly | VzOnly | VzOnly |
| Weights | No | No | No | Yes | Yes | Yes |
| Year | 2021 | 2022 | 2022/2021 | 2021 | 2022 | 2022/2021 |
| Obs. Pop. | 401 | 356 | 0.89 | 293,565 | 293,565 | 1 |
| Obs. Fborn | 401 | 356 | 0.89 | 293,565 | 293,565 | 1 |
| Obs. Vz. | 401 | 356 | 0.89 | 293,565 | 293,565 | 1 |
| Obs. OtherIm | 0 | 0 | NA | 0 | 0 | NA |
| Share FB | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Share Vz | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| ER0 | 0.89 | 0.90 | 1.00 | 0.89 | 0.88 | 0.99 |
| ER1 | 0.79 | 0.85 | 1.07 | 0.75 | 0.82 | 1.09 |
| Hours0 (if emp0) | 48.45 | 48.51 | 1.00 | 48.63 | 49.72 | 1.02 |
| Hours1 (if emp1) | 38.59 | 40.25 | 1.04 | 37.41 | 39.77 | 1.06 |
| Formality0 (if emp0) | 0.39 | 0.36 | 0.93 | 0.35 | 0.33 | 0.93 |
| Formality1 (if emp1) | 0.34 | 0.36 | 1.05 | 0.31 | 0.30 | 0.99 |
| Share Urban | 0.85 | 0.90 | 1.06 | 0.84 | 0.88 | 1.04 |
| Female | 0.47 | 0.50 | 1.06 | 0.55 | 0.55 | 1.00 |
| Share Age1830 | 0.32 | 0.23 | 0.70 | 0.36 | 0.31 | 0.86 |
| Share Age3140 | 0.40 | 0.42 | 1.04 | 0.39 | 0.45 | 1.13 |
| Share Age4155 | 0.23 | 0.29 | 1.26 | 0.21 | 0.21 | 0.97 |
| Share Age56plus | 0.05 | 0.07 | 1.42 | 0.04 | 0.04 | 1.10 |
| Edu1 | 0.02 | 0.01 | 0.56 | 0.03 | 0.02 | 0.55 |
| Edu2 | 0.35 | 0.31 | 0.89 | 0.49 | 0.50 | 1.03 |
| Edu3 | 0.62 | 0.67 | 1.08 | 0.48 | 0.48 | 1.00 |
| Share with children517 | 0.35 | 0.43 | 1.22 | 0.36 | 0.47 | 1.29 |
| Avg. number children | 0.50 | 0.65 | 1.29 | 0.52 | 0.71 | 1.36 |
| Share with 3 or more children | 0.02 | 0.04 | 1.58 | 0.03 | 0.04 | 1.43 |
| Share kids enrolled (if parent) | 0.93 | 0.94 | 1.01 | 0.91 | 0.93 | 1.02 |
| Share kids attend (if parent) | 0.82 | 0.89 | 1.08 | 0.81 | 0.88 | 1.09 |
| Share in-person (if parent) | 0.01 | 0.94 | 99.04 | 0.01 | 0.95 | 67.43 |
| Share virtual (if parent) | 0.99 | 0.18 | 0.18 | 0.99 | 0.19 | 0.19 |

Notes: $ER0$ is the employment rate prior to the pandemic (based on recall questions to the respondents), $ER1$ is the current employment rate at the time of the survey. Employment rates are defined as the ratio between employed and the population age 18 or above. Similar definitions apply to weekly work hours ($Hours0$, $Hours1$) and the rates of formality ($Formality0$, $Formality1$). Virtual schooling is the same as remote schooling. Children refers only to children ages 5 to 17. Children refers only to children ages 5 to 17. Source *HFPS-VzOnly* (not merged) for 2021Q2 and 2022Q2, using the January 2023 weights. All questions refer to the respondent (not the household head).

Table 3: Sample means by group

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| HFPS | Ecu | Ecu | Ecu | Ecu | Ecu | Ecu | Ecu | Ecu | Vz |
| Group | All | Age 18-40 | Age 41-70 | Edu1 | Edu3 | Fem. | Mothers | Fathers | Vz |
| ER | | | | | | | | | |
| Pre-pandemic | 0.76 | 0.67 | 0.81 | 0.84 | 0.68 | 0.68 | 0.76 | 0.96 | 0.89 |
| 2021 | 0.62 | 0.56 | 0.62 | 0.63 | 0.66 | 0.49 | 0.54 | 0.91 | 0.75 |
| 2022 | 0.67 | 0.64 | 0.66 | 0.67 | 0.74 | 0.55 | 0.57 | 0.93 | 0.82 |
| 2021 - PrePandemic | -0.14 | -0.11 | -0.19 | -0.22 | -0.02 | -0.19 | -0.23 | -0.05 | -0.13 |
| 2022 - 2021 | 0.05 | 0.08 | 0.05 | 0.04 | 0.08 | 0.06 | 0.03 | 0.02 | 0.07 |
| Weekly hours (if emp) | | | | | | | | | |
| Pre-pandemic | 44.0 | 43.0 | 44.6 | 44.0 | 43.5 | 38.9 | 38.9 | 47.5 | 48.63 |
| 2021 | 34.5 | 31.7 | 35.6 | 37.3 | 37.9 | 28.8 | 27.0 | 36.5 | 37.4 |
| 2022 | 34.3 | 38.0 | 31.6 | 29.7 | 39.7 | 29.3 | 30.5 | 35.6 | 39.8 |
| 2021 - PrePandemic | -9.48 | -11.39 | -9.00 | -6.72 | -5.59 | -10.06 | -11.89 | -10.92 | -11.22 |
| 2022 - 2021 | -0.27 | 6.31 | -3.99 | -7.59 | 1.82 | 0.45 | 3.48 | -0.94 | 2.36 |

Notes: Means computed using survey weights. *Young* are individuals age 18-30 and *Old* are individuals age 41-70. Mothers are females with children ages 5 to 17. Sources: *HFPS-Ecuador* for years 2021Q2 and 2022Q2 restricted to those born in Ecuador in all columns, with the exception of the columns referring to Venezuelans, which is based on *HFPS-VenezuelansOnly*. Pre-pandemic employment and working hours are based on the recall questions in the 2021Q2 waves of the HFPS. Outcomes refer to the respondent (not the household head). Average weekly work hours are computed on the sub-sample of employed individuals.

Table 4: Conditional employment trajectories

| ER | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| Data | Ecu | Ecu | Ecu | Ecu | Ecu | Vza | Vza | Vza | Vza | Vza |
| Sample | All | All | All | Fem | Male | All | All | All | Fem | Male |
| Constant | 0.63*** | 0.82*** | 0.81*** | 0.57*** | 0.73*** | 0.75*** | 0.77*** | 0.75*** | 0.58*** | 0.79*** |
| | [0.023] | [0.051] | [0.054] | [0.073] | [0.071] | [0.024] | [0.057] | [0.060] | [0.093] | [0.064] |
| **T1** | 0.05* | 0.05* | 0.06* | 0.08 | 0.05 | 0.07** | 0.06** | 0.11*** | 0.14** | 0.09** |
| | [0.028] | [0.026] | [0.037] | [0.054] | [0.050] | [0.032] | [0.031] | [0.041] | [0.069] | [0.044] |
| Fem | | -0.28*** | -0.28*** | | | | -0.14*** | -0.14*** | | |
| | | [0.029] | [0.029] | | | | [0.033] | [0.033] | | |
| Parent | | 0.06* | 0.08* | 0.03 | 0.17*** | | 0.01 | 0.07 | 0.03 | 0.14*** |
| | | [0.032] | [0.044] | [0.063] | [0.062] | | [0.034] | [0.046] | [0.072] | [0.043] |
| **T1 × Parent** | | | -0.03 | -0.05 | -0.02 | | | -0.12* | -0.08 | -0.20*** |
| | | | [0.053] | [0.079] | [0.068] | | | [0.064] | [0.098] | [0.073] |
| age1830 | | -0.11*** | -0.11*** | -0.18*** | -0.01 | | -0.04 | -0.04 | -0.07 | -0.01 |
| | | [0.043] | [0.043] | [0.062] | [0.059] | | [0.043] | [0.043] | [0.066] | [0.051] |
| age4155 | | 0.03 | 0.03 | 0.05 | -0.01 | | 0.03 | 0.03 | 0.02 | 0.04 |
| | | [0.038] | [0.038] | [0.060] | [0.044] | | [0.039] | [0.039] | [0.066] | [0.043] |
| age56plus | | -0.23*** | -0.23*** | -0.23*** | -0.20** | | -0.16* | -0.17* | -0.19 | -0.17 |
| | | [0.058] | [0.058] | [0.078] | [0.081] | | [0.089] | [0.089] | [0.116] | [0.128] |
| edu1 | | -0.00 | -0.00 | -0.03 | 0.03 | | -0.08 | -0.08 | -0.02 | -0.16 |
| | | [0.037] | [0.037] | [0.051] | [0.051] | | [0.133] | [0.135] | [0.193] | [0.171] |
| edu3 | | 0.09*** | 0.09*** | 0.16*** | 0.02 | | 0.12*** | 0.12*** | 0.13** | 0.09** |
| | | [0.032] | [0.032] | [0.044] | [0.046] | | [0.035] | [0.035] | [0.055] | [0.038] |
| urban | | -0.01 | -0.01 | -0.02 | -0.01 | | 0.02 | 0.03 | 0.06 | -0.02 |
| | | [0.030] | [0.030] | [0.042] | [0.041] | | [0.048] | [0.048] | [0.070] | [0.049] |
| Observations | 1,914 | 1,914 | 1,914 | 1,132 | 782 | 757 | 757 | 757 | 369 | 388 |
| $\beta_0$ | 0.05 | 0.05 | 0.06 | 0.08 | 0.05 | 0.07 | 0.06 | 0.11 | 0.14 | 0.09 |
| $\beta_0 + \beta_1$ | | | 0.03 | 0.03 | 0.03 | | | -0.01 | 0.06 | -0.11 |

Notes: Parents are individuals with school-age children (ages 5 to 17). Source HFPS Ecuador (only natives) in columnns 1-5 and HFPS Venezuelans in Ecuador for columns 6-10 (2021Q2 and 2022Q2 waves). Omitted categories: Age3140 and Edu2. Source HFPS/Ecuador and HFPS/EcuadorVz 2021Q2 and 2022Q2. Sample weights from the corresponding surveys have been used – for the Venezuelan datasets we are using the January 2023 updated weights. All questions refer to the respondent (not the household head).

Table 5: Estimates weekly work hours

| Work Hours | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| Data | Ecu | Ecu | Ecu | Ecu | Ecu | Vza | Vza | Vza | Vza | Vza |
| Sample | All | All | All | Fem | Male | All | All | All | Fem | Male |
| Constant | 34.52*** | 39.74*** | 40.37*** | 32.47*** | 38.81*** | 37.41*** | 42.81*** | 43.72*** | 30.32*** | 45.57*** |
| | [1.286] | [2.799] | [3.013] | [4.647] | [3.391] | [1.253] | [3.313] | [3.448] | [4.900] | [4.445] |
| **T1** | -0.27 | -0.23 | -1.35 | -1.98 | -0.48 | 2.36 | 2.79* | 1.20 | -0.85 | 3.16 |
| | [1.625] | [1.592] | [2.426] | [3.665] | [2.986] | [1.816] | [1.678] | [2.118] | [3.289] | [2.703] |
| Fem | | -8.80*** | -8.85*** | | | | -13.20*** | -13.17*** | | |
| | | [1.707] | [1.702] | | | | [1.761] | [1.753] | | |
| Parent517 | | -2.38 | -3.65 | -4.23 | -2.84 | | -2.40 | -4.46* | -8.68** | -0.51 |
| | | [1.804] | [2.497] | [3.765] | [3.193] | | [1.840] | [2.533] | [3.545] | [3.552] |
| **T1 × Parent** | | | 2.44 | 5.70 | -0.37 | | | 3.84 | 3.18 | 5.86 |
| | | | [3.212] | [4.848] | [3.985] | | | [3.428] | [4.844] | [4.540] |
| age1830 | | -1.47 | -1.51 | -2.43 | -0.62 | | -1.45 | -1.54 | -1.52 | -0.88 |
| | | [2.200] | [2.197] | [3.384] | [2.785] | | [2.220] | [2.224] | [2.990] | [3.119] |
| age4155 | | -1.47 | -1.43 | 0.73 | -2.85 | | -2.14 | -2.15 | 1.99 | -5.23* |
| | | [2.216] | [2.211] | [3.469] | [2.855] | | [2.198] | [2.199] | [3.435] | [2.754] |
| age56plus | | -3.21 | -3.23 | -5.65 | -1.28 | | -2.78 | -2.45 | -5.02 | 3.76 |
| | | [3.672] | [3.642] | [5.042] | [4.818] | | [6.158] | [6.136] | [8.297] | [6.920] |
| edu1 | | 0.34 | 0.33 | -1.11 | 1.94 | | -0.92 | -1.03 | -3.83 | -1.96 |
| | | [2.173] | [2.164] | [3.370] | [2.723] | | [8.010] | [8.050] | [11.321] | [6.891] |
| edu3 | | 5.55*** | 5.55*** | 9.69*** | 2.31 | | 2.14 | 2.17 | 4.14 | -0.51 |
| | | [1.883] | [1.886] | [2.201] | [2.849] | | [1.866] | [1.864] | [2.802] | [2.439] |
| urban | | -0.15 | -0.14 | -2.46 | 1.24 | | 2.16 | 2.02 | 4.09 | -1.24 |
| | | [1.927] | [1.914] | [2.779] | [2.577] | | [2.531] | [2.524] | [3.497] | [3.366] |
| Observations | 1,234 | 1,234 | 1,234 | 627 | 607 | 610 | 610 | 610 | 269 | 341 |
| $\beta_0$ | -0.27 | -0.23 | -1.35 | -1.98 | -0.48 | 2.36 | 2.79 | 1.2 | -0.85 | 3.16 |
| $\beta_0 + \beta_1$ | | | 1.09 | 3.72 | -0.85 | | | 5.04 | 2.33 | 9.02 |

Notes: Sample includes employed individuals only. Notes to Table 4 also apply here.

Table 6: In-person schooling

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| Sample | Ecu parents | Ecu parents | Ecu parents | Vz parents | Vz parents | Vz parents |
| Year | Both years | 2021Q2 | 2022Q2 | Both years | 2021Q2 | 2022Q2 |
| Dep. Var. | Emp | Emp | Emp | Emp | Emp | Emp |
| **InPerson School** | -0.11 | -0.21 | -0.02 | 0.20 | 0.34*** | 0.21 |
| | [0.180] | [0.352] | [0.120] | [0.154] | [0.113] | [0.179] |
| Female | -0.32*** | -0.33*** | -0.32*** | -0.12** | -0.25*** | -0.06 |
| | [0.039] | [0.056] | [0.049] | [0.054] | [0.064] | [0.070] |
| Year2022 | 0.10 | | | -0.15 | | |
| | [0.179] | | | [0.155] | | |
| Observations | 702 | 307 | 395 | 235 | 100 | 135 |
| Mean InPerson | 0.52 | 0.02 | 0.98 | 0.59 | 0.01 | 0.94 |
| Mean Emp | 0.71 | 0.70 | 0.71 | 0.79 | 0.79 | 0.79 |
| Dep. Var. | WorkHours | WorkHours | WorkHours | WorkHours | WorkHours | WorkHours |
| **InPerson School** | -3.18 | 19.81 | -20.40* | 6.10 | 23.15*** | 1.81 |
| | [16.801] | [33.509] | [10.389] | [6.648] | [5.737] | [6.631] |
| Female | 4.55 | | | 0.96 | | |
| | [16.776] | | | [6.837] | | |
| Year2022 | -7.11*** | -10.22*** | -5.26 | -18.90*** | -15.80*** | -21.95*** |
| | [2.378] | [2.924] | [3.215] | [3.165] | [3.895] | [4.316] |
| Observations | 492 | 215 | 277 | 195 | 82 | 113 |
| Mean InPerson | 0.52 | 0.02 | 0.98 | 0.59 | 0.01 | 0.94 |
| Mean Emp | 0.71 | 0.70 | 0.71 | 0.79 | 0.79 | 0.79 |
| Mean Hours Emp | 32.9 | 32.6 | 33.2 | 36.5 | 33.6 | 38.8 |

Notes: Sample includes employed individuals only. Notes to Table 4 also apply here.