

Life out of the Shadows: Impacts of Amnesty Programs on Migrant's Lives

Pre-Analysis Plan

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1 Introduction

At least 1.78 million people have been displaced from Venezuela to Colombia escaping the social, economic, and political crisis in their country.¹ Since the intensification of the Venezuelan crisis, the Colombian government began granting special and temporary residence permits to better-off Venezuelan migrants with legal migratory status since 2017. The permits provided legal status and the possibility of holding legal and formal employment, access to public health, education, childcare, and other social services for up to two years.

Unexpectedly, in 2018 the Colombian government also granted this temporary residence permits known as *Permiso Especial de Permanencia* to 285,000 undocumented and vulnerable Venezuelan migrants. Henceforth we refer to these wave of permits granted to vulnerable Venezuelan migrants as PEP, these permits are the focus of our study. The PEP represented an unprecedented large-scale regularization program for undocumented migrants in a developing country that is characterized by pervasive informal markets. The PEP implementations provides a unique opportunity to study the impact of amnesty programs on migrants' well-being.

The purpose of this project is to evaluate the impact of PEP on the well-being, labor market outcomes, income trajectories, and physical and mental health of Venezuelan undocumented migrants. To do this, we will administer a household survey to collect information on labor outcomes, health, well-being, and the integration process of Venezuelan migrants into the Colombian society, among other dimensions. Given the extent of the COVID-19 pandemic, the survey will be administered over the phone on a sample of 4,000 migrants residing in four geographic regions of Colombia: Barranquilla, Bogotá, Medellín, and a fourth region representative of all the other cities in which the PEP was granted and where undocumented migrants were registered in a previous survey called *Registro Administrativo de Migrantes Venezolanos, RAMV*. The RAMV was a large survey collected between April and June of 2018 with the sole purpose of identifying the number of undocumented Venezuelan migrants living in Colombia.

¹Source: <https://r4v.info/en/situations/platform> consulted on 07/29/2020

To identify the impact of the PEP, the sample design will include undocumented migrants who were eligible to enroll for a PEP, as well as undocumented migrants who were not eligible for the special permit because they migrated to Colombia after the RAMV was completed. We will compliment the quantitative analysis with qualitative evidence from semi-structured phone interviews to better understand channels through which the PEP could have had impacts on migrants’.

This document discusses the main objectives and contributions of the project, the empirical strategy and sample design to identify the impact of PEP, and describes the primary and secondary outcomes of interest. In this first research project, we will focus on the short-term impacts of the PEP. The goal, however, is to leverage resources to fund future waves of the survey to estimate long-term impacts of the PEP through a longitudinal study.

2 Context: Special Residency Permits for Venezuelan Migrants

With 1.78 million Venezuelan migrants, Colombia is the country that hosts the largest number of Venezuelan migrants in the world. To facilitate the regularization of migrants and their participation in the formal labor markets, the Colombian Government established the PEP special residency program in 2017. The first two waves, targeted migrants who entered Colombia through official immigration checkpoints and therefore had a lawful migratory status. Under these first two waves, nearly 182,500 permits were issued. In addition to allowing migrants to hold a formal job, PEP grants access to the Sisbén, the social stratification system, which is used by the Colombian Government to target social programs, thus allowing access to the subsidized healthcare, public education, and other social programs and transfers.

A large share of the migrant population was excluded from the PEP as they had entered Colombia through illegal border crossings, overextended their stay, or used the *Tarjeta de Movilidad Fronteriza*, which only allows temporary stays in border areas.² Without

²The *Tarjeta de Movilidad Fronteriza* is a document that facilitates the movement of Venezuelans who

the PEP, migrants cannot be employed in the formal sector, and thus, can only aspire for an informal jobs that are often characterized by low wages and do not provide access to social security programs. In addition, immigrants in informal jobs may face a higher risk of exploitation and poor working conditions. Because Venezuelan migrants have on average higher human capital than the Colombian population, restricting access to formal labor markets can cause a skill-downgrading of the high-skilled migrants.³

A third wave of the residence permits program, that we refer to as PEP, was introduced in August 2018 among migrants registered in the administrative record of Venezuelan migrants RAMV. Between April 6 and June 8 of 2018, the Colombian Government registered irregular migrants in the RAMV to assess the magnitude of irregular migration and characterize the irregular migrant population. Importantly, the RAMV was by no means implemented to extend grant work permits. However, a few weeks before leaving office in August 2018, President Juan Manuel Santos unexpectedly enacted a decree that enabled migrants in the RAMV to register in a new wave of the special residency permit; the PEP. The requirements for getting a PEP included: i) having a valid Venezuelan ID or other proof of Venezuelan citizenship; ii) being registered in the RAMV; iii) residing in Colombia by the time the decree was issued; and iv) not having any criminal records or deportation orders. The processing and re-issuance of the PEP was free and migrants had to submit their application online. According to the official records, 441,237 irregular migrants registered in the RAMV and 64 percent of them registered in PEP.

The PEP program provides a unique opportunity to identify the causal impact of a large-scale regularization policy on the overall well-being of irregular migrants in a developing country. Although the PEP is not the first program of its nature in a developing country, it does allow a proper identification of the causal impact on migrant's well-being. For instance, most regularization programs have eligibility requirements, such as being employed at the time of the enactment, and are paired with additional policies, including

live in the Venezuelan-Colombian border and constantly come across the border to shop for groceries, medicines, visit family members, or to attend school, among others. It only permits free movement inside the "Border Areas".

³Descriptive statistics from the *Gran Encuesta Integrada de Hogares* show that Venezuelan migrants have on average one year more of education than the average Colombian worker.

sanctions to firms that hire irregular migrants, heightened border controls, or support from other countries.⁴ In addition, many of these programs are publicly discussed before their approval. Although in most cases the enactment date is unknown, such discussions may lead migrants to adjust their behavior and decisions in anticipation of future positive effects (i.e. accepting low wage jobs to be eligible or even migrating) that therefore do not allow cleanly identify the impact of the program. For this reason, the causal impact of other regularization programs like *Patria Grande* in Argentina and Brazil's humanitarian visas for Haitian migrants are difficult to identify due to self-selection into the program, anticipation effects, and endogeneity issues.

By contrast, the PEP program has several features that allow identifying a causal impact. First, the program did not have any eligibility requirements and was not paired with additional policies other than registration in the RAMV, which was open for all irregular Venezuelan migrants in the country. Second, the PEP was completely unexpected. The RAMV was not collected to later regularize Venezuelan migrants but rather to characterize this population, while the PEP was never discussed in public and was announced the day it become a Presidential Decree. Therefore, the PEP roll-out isolates any anticipatory decisions and behavioral effects. Third, all migrants included in the RAMV were eligible for regularization. Fourth, unlike other contexts in which language and cultural differences explain a great deal of the barriers faced by migrants and policy makers in receiving countries, Venezuelan and Colombian citizens speak the same language and were once part of the same country. This provides a clean context to study the effects of migration by itself and not mediated by a clash of cultures.

Nevertheless, there are different challenges to identify the causal impacts of the special residence permits. First, and more importantly, both the RAMV and PEP populations are self-selected. Although the Colombian Government sought to register all irregular migrants in the RAMV, registration was voluntary. Likewise, migrants registered in the RAMV decided whether to apply for the special residency permit. In both cases, the decision of eligible migrants could have been mediated by registration constraints, available

⁴The European Union provided funds to Turkey and trade concessions to Jordan for hosting and regularizing Syrian refugees.

information, trust on Colombian authorities, expected net benefits from registration, or anticipated migration back to Venezuela or to other countries in Latin America. Second, migrants who arrived after the RAMV registry was completed were not allowed to apply for a PEP. While this latter group can serve as a control group to identify the PEP counterfactual, this group may have different characteristics and fewer time of assimilation than that of RAMV migrants, which can confound the impact of the PEP. Finally, the RAMV only included irregular migrants, and therefore we cannot provide evidence on the impacts for better-off migrants who perhaps were in a better position to take advantage of the special residency permits.

3 Objectives

We will analyze the impacts of the PEP on migrants' well-being. For this purpose, we will assess impacts on aggregate income and consumption, labor market outcomes, and mental and physical health. As such our study has four main objectives:

1. *Mechanical effects*: We will assess the mechanical effects of the PEP program. Were migrants with the PEP able to find formal employment, enroll in the Sisbén social stratification system, access access the subsidized health system, and open financial services? These are the direct benefits provided by PEP enrollment, and are not available for non-PEP irregular migrants. Hence, it is important to document them since they provide a first approximation into the impacts of the permit on migrants and possible mechanisms that underlie its impact on well-being.
2. *Well-being effects, main outcomes*: we will assess the impact of PEP on migrants well-being. We will take a broad perspective into migrants well-being that encompasses socioeconomic dimensions (consumption, income, and labor market access) as well as mental and physical health. In particular, we will assess effects on five primary outcomes: aggregate consumption, aggregate income (including self-generated income and transfers), employment (access and quality of employment), mental health, and an aggregate health index. These will be the main outcomes of

interest.

3. *Impacts during COVID-19:* The pandemic has had a devastating effect on the overall economy in which the unemployment rate increased from 9.8% in June 2019 to 19.7% a year later. This change represents an increase of more than 100% in the unemployment rate. Moreover, the burden of the pandemic has not been equally borne and more vulnerable segments of the population, including Venezuelan migrants, may have been disproportionately affected. It is therefore possible that the pandemic eroded some of the positive impacts of the PEP. However, it is also possible that the the PEP allowed migrants to better cope and navigate through the pandemic by providing access to subsidized health and other social services, including the cash transfers set up by the Colombian government. This may have prevented costly coping strategies, such as child labor, and long-term and inter-generational impacts which would further highlight the importance of regularization programs. In such case, the mechanisms through which PEP brought about positive effects may have been different than the mechanisms through which PEP operated pre-pandemic. For these reasons, we will collect current and retrospective data on employment history, income, and on other dimensions where it is feasible to do so. This will allow us to understand whether the COVID-19 pandemic mitigated positive effects on employment, consumption, mental and physical health, and overall well-being that may have emerged prior to the pandemic, or whether the mechanisms through which PEP enhances migrant's well-being changed as a consequence of the pandemic.
4. *Other secondary outcomes:* We will analyze a set of secondary outcomes that will allow us to provide a broader picture of the PEP effects and understand potential mechanisms. These include other more specific characteristics of labor market access (hours worked, skill downgrading, quality of employment, exploitation); COVID-resilience (food insecurity, house evictions, ability to comply with social distance measures); integration into the Colombian society and discrimination; empowerment, peace of mind, and ability or willingness to assert their rights; and post-

PEP changes in household composition including the migration of other household members or relatives who had stayed behind in Venezuela.

4 Contributions

1. **Identify the impact of a large regularization program on migrant's well-being in a developing country with large informal markets.** Developing countries host eighty five percent of refugees worldwide. Hence, integrating migrants into the formal labor markets and designing policies that promote their recovery is one of the main development challenges nowadays. Unfortunately, there is little evidence on the impact of migrant flows to developing countries, let alone the impact of regularization programs on migrant's themselves. Instead, the literature has largely focused on analyzing the impact of regularization programs on host communities in developed countries (Amuedo-Dorantes and Antman, 2017; Cobb-Clark et al., 1995; Amuedo-Dorantes et al., 2007; Chassamboulli and Peri, 2015; Devillanova et al., 2018; Monras et al., 2018) and there is recent evidence for developing countries, including (2019) in Jordan and Bahar et al. (2020) in Colombia. These studies, however, focus on the effects of the amnesties on natives and not migrants themselves.
2. **Provide a broader perspective on migrants lives and well-being and understand the impact of the regularization programs beyond labor income and including health and mental health:** While prior studies have focused on labor outcomes, the regularization programs may have far reaching implications on migrant's well-being including their physical and mental health. Prior studies have demonstrated that migrants, and refugees in particular, have an initial health disadvantage when compared to the host population (Reed and Barbosa, 2017). The deterioration on migrants' health after migration is explained by the collapse of health infrastructure in the countries of origin, lack of access to healthcare in receiving countries, an income effect that reduces households' investment in health, stress associated with the migration and resettlement process, and cultural differences on the concept of

health and "healthy behavior", change in behavior (Black et al., 2015) among others. In some contexts the gap between natives and migrants vanishes over time, but in others, as in the case of asylum seekers, the gap may persist (Giuntella et al., 2018). Furthermore, it is important to consider migrants' mental health. Moreover, the drivers of (forced) migration have negative and sometimes persistent consequences on migrants' mental health. On the other hand, the uncertainty, fear of deportation, barriers to proper integration, and the socioeconomic deprivation in receiving countries may also lead to further deterioration of migrants' mental health. Together these two factors explain differences between migrants' and non-migrants' subjective well-being (Chen et al., 2019). Importantly, mental health problems can affect behavior, labor outcomes, and income trajectories, thus creating feedback mechanisms between socioeconomic and mental health dimensions that can even lead to economic and psychological poverty traps (Ruiz and Vargas-Silva, 2018).⁵

- 3. Provide evidence on whether the regularization program allowed migrants to better cope and navigate with the shock of the COVID-19 pandemic.** Available evidence suggests that the toll of the pandemic is not borne equally and that the vulnerability of more undeserved segments of the population heightens health and socioeconomic risks and can thus contribute to reinforce their vulnerability. Irregular migrants and refugees stand out as some of the population more vulnerable to the effects of the pandemic because of their socioeconomic and psychological vulnerability, because they lack access to essential health services, and because they may be ignored or left behind in the policy frameworks implemented by Governments across the world to tackle the socioeconomic consequences of the pandemic. Therefore, the large-scale regularization program of irregular Venezuelan migrants in Colombia may be even more important now, in context of COVID-19 pandemic, as it enables access to health and social protection and to receive social transfers instituted during the pandemic.

⁵This paper finds descriptive evidence that refugees in the United Kingdom have worse labor outcomes than other migrants and most of the gap can be explained by differences in health status, specially mental health.

4. **Understand how a regularization program promotes the integration of migrants into the society's of the receiving country.** A successful integration process is crucial for migrants to feel they are part of the social contract in the host country, trust state institutions, and act collectively within their communities. This project will explore the impact of the regularization process on the attitudes, behaviors, and perceptions of migrants. Most papers on the migration literature study the impact of migration on the on attitudes, behaviors and perceptions of the host population. If migrants never return to their home country, a failed integration process may segregate migrants from host communities, creating anger and resentment among the migrant population. By providing benefits similar to those of citizens, a regularization program may ease some of these negative impacts. In fact, their sense of belonging to the host country may affect their willingness to contribute with public services, pay taxes, and maintaining order, among others.
5. **Longitudinal study:** The survey has the potential for leveraging a panel to in the future study experimentally potential interventions aimed at helping migrants, including their children, effectively integrate into Colombian society. The questionnaire, sample and field work will be designed as a baseline survey for a future panel. To the best of our knowledge, this would be the first longitudinal survey to study the short and long term impact of a regularization program and of future interventions in a developing country.

5 Sample Design

We plan to collect 4,000 surveys that will include migrants which had the possibility of being regularized applying for PEP, and as such, are in the RAMV; and those which we call irregular migrants, who are not in the RAMV. The surveys will be collected from October of 2020 to January of 2021 (with a pause on operations between December 23 of 2020 and January 14 of 2021). We will collect the survey by phone by interviewing only the head of household or his/her partner. For this purpose, we will proceed in the following steps:

1. Treatment group - migrants registered in the RAMV (target 2,550 surveys):

- We will leverage individual-level data from the RAMV as a sampling frame to obtain a representative sample of all the migrants registered in that survey. For this purpose, we collect data in four geographic regions: three of the main cities of the country (Barranquilla, Bogotá, Medellín) and a fourth region representative of all the migrants located outside of these three cities (it includes Cúcuta, Villa del Rosario, Cali, Cartagena, Riohacha, Maicao, Uribia, Valledupar, Santa Marta and Arauca). Approximately, we plan to collect twenty five percent of the sample in each of the four regions. Our sample will be representative of the migrant population registered inside each of these four regions.
- The survey will be stratified based on age, gender, and education level (as reported in the RAMV).
- We will interview individuals who satisfy the following criteria: i) they are Venezuelan, ii) they are older than 18 years of age, iii) they are registered in the RAMV, and iv) they registered for the RAMV in Barranquilla, Bogotá, Medellín, Cúcuta, Villa del Rosario, Cali, Cartagena, Riohacha, Maicao, Uribia, Valledupar, Santa Marta or Arauca.

2. Control group - irregular migrants not registered in the RAMV (target 1,200 surveys):

- For each individual who is interviewed we will ask that they refer other migrants (as many as they want) that satisfy the following criteria: i) they are Venezuelan, ii) they are 18 years of age, iii) they do not have a passport, ii) they arrived to Colombian between January of 2017 and December of 2018 to Colombia, and iii) they do not have any PEP.
- Considering that we may face challenges meeting the target number of irregular migrants we will also use contact information for irregular migrants from local migrant's organizations. The information provided includes the contact data for irregular migrants living in Colombia.

Our sample size was determined based on funding restrictions considering the scarce literature available on the impacts of amnesty programs in migrant's outcomes and inside developing countries. However, considering an alpha of 0.05, a beta of 0.8, a sample size of the treatment group of 2,500, and a sample size of the control group of 1,200, we will be able to detect a minimum effect of the PEP program of 0.098 standard deviations between groups.⁶

5.1 Data: Household Survey

We will administer a standard household survey on the sample of 4,000 Venezuelan migrants as discussed above. Due to the disruption of in-person activities due to COVID-19 and to ensure the health and safety of enumerators and participants alike, the survey will be administered over the phone. We followed best-practices for phone surveys (see guidelines by World Bank and Innovations for Poverty Action) to ensure the quality of the data and minimize burnout by participants and enumerators. As a result, we were obliged to discard sections that had been initially designed for an in-person survey, including a set of behavioral experiments to elicit trust and reciprocity and a module on early childhood development, among others, but that are not at the core of our objectives. In addition, we restricted the scope of the survey to elicit information on the members of the family nucleus (including family head and partner, and their parents and children if they live together) rather than on members of the broader and more standard household construct.

The questionnaire, which is included as an attachment, includes the following modules:

1. Family Composition: standard demographic questions on all family members.
2. Education: Standard information on years of education and highest degree completed. This module also collects information on current enrollment (one of the benefits of the PEP) and whether the migrant was able to validate the Venezuelan academic degree in Colombia, one of the bottlenecks that migrants report hinder access to formal employment.

⁶We used the GPower software to estimate the minimum detectable effects.

3. **Income and Employment:** This is one of the core modules of the survey as it elicits information on access to employment and labor market outcomes, which in theory is one of the dimensions directly affected by PEP. For this purpose, the module includes detailed information for the family head and partner (or a random member aged 12 or older in case of single-headed families) on formal and informal employment, labor and non-labor income, quality of employment and skill downgrading, unemployment, among others.
4. **Retrospective labor market dynamics:** For the same family members as in the previous module, this module elicits information on labor market outcomes prior to the migration to Colombia. This will allow us to better understand the profile and labor market experience of PEP and non-PEP holders and control for pre-migration observable characteristics. In addition, the module elicits information on income and other labor market outcomes prior to the COVID-19 to understand whether the pandemic eroded positive impacts of the PEP on income and employment dynamics or if instead the PEP protected employment.
5. **PEP and RAMV:** Information on RAMV and PEP status, and factors that led or hindered access to each registry.
6. **Child labor:** Information on child labor pre and post pandemic.
7. **Migration:** Information on migration dynamics, including date of migration to Colombia, factors that triggered the migration, and characteristics of the migration process.
8. **Health:** This module elicits information access to health services in Colombia, chronic physical health problems, and mental health. Physical and mental health are assessed using the Venezuelan version of the EQ-5D-5L scale, which measures 5 dimensions of health: mobility, self-care, daily activities, pain or discomfort, and anxiety and depression and has been validated in Colombia. In addition, the health module includes a detailed module on COVID-related questions including the abil-

ity to comply with public health measures, symptoms, access to aid and social protection measures, and coping strategies.

9. Food insecurity: Information for pre- and post-pandemic.
10. Social integration, discrimination, and access social programs. Includes detailed information on access to social protection programs from the Colombian Government, such as conditional cash transfers and transfers during the pandemic, and aid from non-governmental organizations.
11. Social preferences: Trust and cooperation questions.
12. Consumption: Short module on household expenses and remittances.
13. Housing: Housing quality and characteristics and access to essential and public services. Current and retrospective (prior to migration) information.
14. Referrals: This module collects information on other migrants that can participate in the study as defined in the sample design of the previous section.

5.2 Qualitative Data: Semi-structured interviews

Prior to the administration of the household survey, we conducted a series of semi-structured interviews. A total of 42 semi-structured interviews were administered over the phone between July 21st and August 11 on a sample of 42 Venezuelan migrants that included irregular migrants (not eligible for the PEP), migrants in the RAMV registry but who did not enroll in the PEP program, and migrants in the RAMV and who hold a PEP permit. Migrants were contacted through associations and established networks of Venezuelan migrants.

The qualitative component was introduced to gather more detailed information on the drivers of migration, registry and selection into RAMV and PEP, and possible impacts of the PEP program on labor outcomes, access to health services, integration into the Colombian society, and migrant networks. In addition, the interviews also elicited information on COVID-19 and how it affects migrants' lives. In doing so, the data from

the qualitative component allowed us to enrich and adjust our research hypothesis and the household survey questionnaire. In addition, it will complement the findings from the household survey to better understand the mechanisms through which the PEP can impact migrants' well-being, the factors that hinder such impacts, and possible factors that explain selection into the RAMV registry and into the PEP program.

Data from the semi-structured were coded by a qualitative team at IPA using a classification matrix that led to 11,000 micro-data points. Standard processes of text analytics were then used to classify and triangulate the data using key words and pre-determined emotions for each of the main dimensions of interest (Flick, 2018). This data and the resulting analysis will be used to complement the findings of the statistical analysis based on the data of the household survey.

5.3 IRB

The study received IRB approval by the University of Southern California (Study UP-20-00892) on 09/01/2020 and Innovations for Poverty Action (Protocol 15396) on 15/07/2020 with amendments on 8/3/2020 and 10/16/2020 for the survey pilot test and household surveys, respectively.

6 Outcomes

As we discussed earlier, we will first assess the mechanical effects of the PEP program on benefits and services provided by PEP enrollment that are not available to non-PEP migrants. Second, we will assess the impact of PEP on migrants well-being focusing on 5 primary outcomes: aggregate consumption, aggregate income, employment, mental health, and an aggregate health index. This will allow us to reduce the dimensions of our analysis and reduce inference penalties arising from multiple hypothesis testing. In the table below, we pre-specify how we will measure mechanical effects and main outcomes of interest, and list additional secondary outcomes that we will explore but that will not be the core of our study.

1. Mechanical Outcomes	Measurement
1.1 Formal employment	<p>Dummy variable if PEP holder has a formal employment and makes contributions to social security (pensions).</p> <p>Module 1.ROST.HOGAR – B.Módulo Laboral Questions: flab_200 (=1) + ocu_214 (=1) + ocu_new9 (=1)</p>
1.2 Enrollment in Sisbén system	<p>Dummy variable if PEP holder is registered in Sisbén</p> <p>Module 5.INTEG Question: int_soc_720 (=1)</p>
1.3 Access to subsidized health system	<p>Dummy variable if PEP holder is registered in subsidized health system.</p> <p>Module 3.SALUD – A.I.Acceso al sistema de salud y perfil de Salud. Question: salud_600 (=2)</p>
1.4 Access to financial services	<p>Dummy variable if respondent or family member has savings account or other financial product.</p> <p>Module: 6.GASTOS – I.Gastos Question: rem_917 (=1)</p>
1.5 Government transfers	<p>Dummy if family has received state transfers</p> <p>Module: 5. INTEG. Question: int_soc_new1</p>

2. Primary Outcomes	Measurement
2.1 Consumption	<p>Log of per-capita annual consumption.</p> <p>Outcome will be constructed using all questions from the short-form consumption survey module. Since expenses are reported with different frequencies (daily to yearly), they will be extrapolated over the year and divided by number of family members.</p> <p>Module: 6.GASTOS – I.Gastos. Questions: gast_ext_900.1 – gast_ext_900.15</p>
2.2 Income	<p>Log of aggregate income , including labor income and income from self-employment.</p> <p>- Labor Income 2.1 ROST.HOGAR – B. Módulo Laboral – III. Asalariados. Questions: asal_231 + asal_232 + asal_233</p> <p>- Self employment 2.1 ROST.HOGAR – B. Módulo Laboral – IV. Independientes. Questions: indep_243 / indep_244</p>
2.3 Employment	<p>Assess effects on extensive and intensive margin</p> <p>- Extensive margin: Employment (=1 if employed)</p> <p>- Intensive margin: Log of weekly hours worked (conditional on being employed)</p> <p>II.Ocupados Questions: ocu_new2</p>
2.4 Mental Health	<p>Categorical variable on 1-5 scale on overall mental health status, ranging from no depression/anxiety (=1) to extreme depression or anxiety (=5).</p> <p>Dummy variable (=1) if subjects respond that they feel very or extremely depressed or anxious (categories 4 and 5) to capture severe symptoms.</p> <p>Module 4.SALUD – IV. Salud Mental Question: salud_sat-new5</p>
2.5 Health index	<p>Health standardized index constructed following the responses to 5 Likert-scale questions and the subjective assessment of overall health status.</p> <p>Index provides more intuitive interpretation than the classification following the EQ-SD-5L manual.</p> <p>Secondary outcome using reference value from the ‘EQ-5D-5L Crosswalk Index Value Calculator’ will be analyzed in the appendix for robustness.</p> <p>Module 4.SALUD – IV. Salud Mental Questions: salud_sat-new1 – salud_sat_new6</p>

3. Secondary Outcomes	
3.1 Employment / Labor market (other outcomes)	<ul style="list-style-type: none"> - Self-reported income - Pre and post Covid employment - Labor contract - Time in job-search - Months worked - Hours worked - Wants to work more (sub-employment) - Works through an app - Type of worker - Mechanisms through which obtained job - Has employees - Type of informal activity - Time in informal activity - Frequency of informal activity - Reason for informal activity - Wishes to change activity - Job satisfaction - Skill downgrade - Time of unemployment - Reservation wage - Reason for not finding employment - Reason for inactivity - Labor market history
3.2 Covid19	<ul style="list-style-type: none"> - Compliance with public health measures - Symptoms - Access to health services - Fear of deportation - Discrimination - Return migration - Change in income - Housing evictions - Asset sales - Loans - Access to new aid/transfers - Child labor
3.3 Transfers	- Reception of govt or non-govt transfers Modules: 5. INTEG - INT_SOC
3.4 Education	- Access to education for children
3.5 Child labor	- Pre and post-Covid
3.6 Health	<ul style="list-style-type: none"> - Access - Vaccines
3.7 Food insecurity	- Before migration, before lockdown, previous month.
3.8 Integration	<ul style="list-style-type: none"> - Member of Colombian society, neighborhood - Number of Colombian friends - Member of migrant org - Discriminated - Frequency of discrimination - Legal complaints - Reason to no set legal complaints - Access to transfers
3.9 Pro-sociality	<ul style="list-style-type: none"> - Trust - Trust Colombians - Trust Venezuelans - Trust Colombian Government
3.10 Remittances	- Amount sent & received

7 Empirical Strategy

To identify the impact of the PEP on migrant’s well-being, we will use four different methodologies that will allow us to benchmark the validity of our results:

1. *OLS with controls:*

We will compare the outcomes outlined above between irregular migrants with the permit and those who did not register in the RAMV and were thus not eligible for the permit. Recall that the PEP was issued to irregular migrants after their registry in the RAMV, which was open between April 6 and June 8, 2018. Therefore, our comparison are based on the representative sample of irregular migrants with the PEP and migrants not included in the RAMV who arrived to Colombia at anytime during 2017 and 2018. Formally, we will estimate the following model:

$$Y_{ij} = \alpha_0 + \alpha_1 \mathbb{1}[PEP_i = 1] + \alpha_2 X_i + \epsilon_i \quad (1)$$

where Y_{ij} is outcome of migrant i in household j , $\mathbb{1}[PEP_i = 1]$ is an indicator function that takes the value of 1 if the migrant has the PEP and 0 otherwise, X_i is a vector of observable individual and household characteristics observed before the PEP implementation, and the error term is the White-robust standard error. We will adjust our standard errors for multiple inference following Westfall-Young stepdown adjusted p-values that controls for the family-wise error rate (FWER) and allows estimating instrumental variable models, which will be important to estimate the LATE as discussed below.

2. *Intent-to-Treat (ITT):*

To estimate the ITT, we will estimate the following model:

$$Y_{ij} = \alpha_0 + \alpha_1 \mathbb{1}[RAMV_i = 1] + \alpha_2 X_i + \epsilon_i \quad (2)$$

where $\mathbb{1}[RAMV_i = 1]$ is an indicator function that takes the value of 1 if the migrant registered in the RAMV and 0 otherwise, and all the other parameters are as

in model 1. The ITT provides the effect of the assignment (eligibility) to the PEP and conditional on our ability to control for selection into the RAMV, it is the more meaningful estimate from a public policy perspective since it allows understanding the effects of providing regularization and work permits to irregular migrants recognizing that some of them will opt out.

3. *Treatment Effect on the Treated (TOT):*

To estimate the TOT, we will estimate model 1 above, but instrumenting the variable of interest $\mathbb{1}[PEP_i = 1]$ with the RAMV registration. The TOT provides the effect of the PEP for the compliers (those who were eligible for the PEP, because they had registered in the RAMV, and registered in the PEP) and allows isolating selection issues in the PEP registry.

4. *Regression Discontinuity Design (RDD):*

We will attempt to isolate the selection into the RAMV by taking advantage of the variation in PEP eligibility resulting from the date in which the RAMV registry in combination with the data of arrival to Colombia. As discussed before, irregulars could register in the RAMV between April 6 and June 18, 2018. Irregular migrants who arrived to Colombia at a later date were thus unable to register in the RAMV and were not eligible for the PEP. We can then restrict the analyses above to compare migrants in the RAMV with those who migrated after June 18 and were not eligible to the RAMV and PEP. While this strategy allows us to isolate the observable and unobservable factors underlying registration in the RAMV, it brings about two additional sources of bias: endogenous migration decisions that led to different migration dates, and assimilation bias provided that those who migrated earlier could have better assimilation patterns than those who arrived at a later date. To address these sources of bias we can estimate a RDD comparing eligible and non-eligible migrants on each side of the RAMV time-eligibility cutoff (the June 18 end date). By focusing on migrants in the close vicinity of such threshold, we can then lessen concerns for assimilation bias and endogenous migration decisions and provide more robust evidence on the impacts of the PEP.

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