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Life out of the Shadows

The Impacts of Regularization Programs on the Lives of Forced Migrants

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Abstract

This paper examines the well-being effects of a regularization program offered to half a million Venezuelan forced migrants in Colombia. It collects data on more than two thousand such migrants and used it to compare the well-being of those who arrived in Colombia before and after the date that defined program eligibility. This date was announced ex post and was generally unknown to the public, and thus enables us to credibly evaluate the program's impact. The authors find that program beneficiaries experienced large improvements in well-being, including consumption per capita (a gain of 48 percent) and monthly labor income (an increase of 22 percent). These effects stemmed from greater registration rates in the system that assesses vulnerability and awards public transfers (22 pp) and from financial services (44.4 pp).

LIFE OUT OF THE SHADOWS: THE IMPACTS OF REGULARIZATION PROGRAMS ON THE LIVES OF FORCED MIGRANTS[*]

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"We would wake up at 5 am and at 5:30 am we were in the mountains. At 7 pm, when it was already dark, we were just finishing, covered in mud, wet because even if it rained we did not stop [...] that was the hardest part of this story. Living without a document is hard. You always lose."

Undocumented Venezuelan migrant in Colombia, 2021

I INTRODUCTION

A dramatic rise in forced migration worldwide has made this issue one of the most pressing development challenges today. The number of forced migrants more than doubled in the last decade; by 2022, 103 million people[1] had been forced to migrate worldwide (UNHCR 2022). To address the needs of these extremely vulnerable people and their hosts, policies must move beyond standard humanitarian programming to a development-centered approach that promotes self-reliance (UNHCR 2018). This is relevant not only for high-income economies that are experiencing ever-greater inflows, but also for developing countries, which host 85 percent of displaced people globally. Unfortunately, our understanding of this crisis is limited, particularly regarding the design and impact of durable solutions to prompt the recovery and socioeconomic integration of forced migrants.

We attempt to fill this gap by examining how a regularization program affected the well-being of Venezuelan forced migrants in Colombia. Our analysis focuses on the short-term impacts of the *Permiso Especial de Permanencia* (PEP), a Colombian government program to support the social and economic integration of Venezuelan forced migrants. In the last seven years, seven million Venezuelans have been forced to emigrate due to economic collapse, political turmoil, and a humanitarian emergency. They represent 19 percent of all forced migrants worldwide—including over 2.5 million Venezuelans in Colombia alone—and constitute one of the largest migrant crisis in the western hemisphere. Through the PEP, the Colombian government regularized the migratory status of 442,462 of these migrants by providing social services, safety nets, and the right to work. By promoting the self-reliance

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[1]This number includes internally displaced persons (IDPs), refugees, asylum seekers, and other people in need of international protection. The number of people displaced by Russia's invasion of Ukraine is estimated at 5.4 million IDPs and eight million refugees.

of forced migrants, the PEP became a benchmark for a development-based approach to the current predicament.

Regularization (or legalization) programs give migrants legal residence and thus access to the rights and services enjoyed by citizens, including the right to work. These programs, which grant temporal benefits but typically exclude voting rights, have been implemented in the United States, Europe, Latin America, and LMICs in response to a sharp increase in irregular migration. Despite their prevalence, these programs are highly controversial. Critics claim they encourage irregular migration, lead to job displacement and unemployment for natives, increase crime, and burden social welfare and public finances. Yet, prior research has demonstrated negligible effects on employment opportunities for natives and shown reductions in migrants' crime rates (Bahar et al. 2021; Pinotti 2017; Baker 2015). Furthermore, from a theoretical perspective, regularization programs may produce positive effects for both migrants and host societies. The right to work means migrants may rely less on social welfare and be more likely to pay taxes, more productive by working in occupations more closely related to their skills, and more inclined to invest in their children's human capital. Research on long-term migration has established positive effects on host countries and shown that these effects are larger or faster if migrants are permitted to integrate economically (Abramitzky and Boustan 2022).

The features of PEP facilitate causal identification of its effects. First, the program was introduced unexpectedly, thereby isolating anticipatory decisions or ex-ante behavioral responses. Unknown to both migrants and government officials, ex-post eligibility for the program was based solely on prior registration in a nationwide census of irregular forced migrants, the *Registro Administrativo de Migrantes Venezolanos* (RAMV for its Spanish acronym), that was administered between April and June of 2018. According to the government officials who designed RAMV, the census was implemented to count the number of irregular Venezuelan forced migrants in Colombia and was not intended to precede or lead to a regularization program. However, in August 2018, Colombia's president unexpectedly

announced that all Venezuelan forced migrants registered in RAMV could regularize their migratory status by applying for PEP. Second, the PEP program did not have any eligibility requirements and was not paired with policies other than registration in RAMV, which was open to all Venezuelan forced migrants in Colombia. Third, unlike other contexts in which language and cultural differences explain many obstacles faced by forced migrants in host countries, Venezuelans and Colombians speak the same language and share similar cultures and traits. Thus, PEP provides a clean context to study the effects of regularization programs unmediated by a culture clash.

To evaluate PEP's impact, we surveyed 2,232 Venezuelan forced migrants who arrived in Colombia between January 2017 and December 2018, thus including migrants who arrived before and after RAMV. We designed the sample to represent cities with the largest share of Venezuelan forced migrants in Colombia: Barranquilla, Bogotá, Medellín (three of the largest cities), and a fourth "region" of smaller cities. Since forced migrants are a hard-to-reach population, we constructed the sampling frame for the survey using the RAMV census, referrals from other forced migrants, and databases of local migrant organizations.[2] The survey data enabled us to examine the impact of PEP on three groups of outcomes: socioeconomic and health well-being, access to rights and services, and labor market consequences. This paper concentrates on the first dimension—socioeconomic and health well-being—while the latter two allow us to discern possible mechanisms. Each dimension includes a series of individual outcomes and a summary index. The survey took place between October 2020 and February 2021. This analysis thus provides a picture of PEP's short-term effects two years after its enactment.

Despite the advantages for causal identification produced by the circumstances of PEP's rollout, registration in RAMV and PEP was voluntary, so self-selection could potentially confound the identification of effects. For this reason, our empirical analysis follows a fuzzy regression discontinuity methodology that compares forced migrants who arrived before

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[2]Importantly, as shown in the analysis, migrants in these three data sources were otherwise similar across socioeconomic characteristics in Venezuela and in Colombia before the program was launched.

June 8, 2018 (and therefore could register in RAMV and become eligible for PEP) with peers who arrived shortly after that date (when RAMV was closed and who therefore were ineligible for PEP). The validity of the empirical strategy rests on two facts: (i) that PEP was announced unexpectedly and its eligibility criteria were defined ex-post after RAMV had already closed, and (ii) the assumption that forced migrants who arrived on either side of the RAMV cutoff date were otherwise similar. The empirical analysis proves there was no discontinuity in the number of migrants arriving in Colombia before or after June 8, 2018, meaning forced migrants did not move en masse to register in RAMV before the cutoff date. Likewise, we show that forced migrants arriving before and after the RAMV cutoff date were similar and that their baseline characteristics did not change discontinuously around the cutoff date. Estimates are largely robust to several sensitivity checks including different polynomial orders and bandwidth specifications.

The results establish that PEP had large and economically important effects on the socioeconomic well-being of Venezuelan forced migrants in Colombia. First, the fuzzy RD points to a sizeable and statistically significant effect of 1.28 standard deviations (sd) in the socioeconomic well-being summary index. In terms of individual components, we show effects of 48 percent and 22 percent in consumption per capita and labor income, respectively, and a positive effect of 26 percentage points (pp) on the likelihood of being employed.

To understand the mechanisms involved, we turn to PEP's impact on forced migrants' access to rights and services and on detailed labor market outcomes. For the former, the results also point to positive and sizeable effects of 4.42 sd on the rights and services summary index. This overall effect is explained by PEP's positive impacts on access to the proxy means-testing system used to target social programs (57 pp), subsidized healthcare (27 pp), financial services (44 pp), and government transfers (22 pp). All are economically meaningful considering that access was close to zero for the ineligible group. Nonetheless, they still indicate supply and demand constraints that prevent eligible migrants from enjoying full access to the different rights and services defined by the PEP program.

Finally, we consider detailed labor market outcomes beyond the employment effect discussed above. These include an effect of 1.33 sd on the summary index, an increase of 10.8 pp in labor formalization, and a reduction of 47 pp in self-employment, although all results in this dimension are imprecisely estimated. The lack of statistical significance in this dimension may be due to a lack of statistical power in the fuzzy RD analysis. This is supported by the fact that some of the estimates become more precise with larger bandwidths even though the estimated coefficients are smaller. Furthermore, the estimated coefficients are qualitatively consistent with a descriptive intent-to-treat analysis and point to potentially large effects. For example, the 10.88 pp effect on labor formality is sizeable considering that 45 percent of Colombia's workforce had informal employment, and this rate is considerably bigger for poorer population segments. Finally, the above analysis may not tell the full story of improvement in labor conditions for PEP holders. It potentially encompasses more bargaining power, better working conditions, and job placement more suited to their skills (i.e., less skill downgrading), for which we did not have data.

All of these results suggest that the benefits of a migrant regularization program are substantial and contribute to socioeconomic integration and overall well-being. These findings are especially striking since they emerge in the context of increasing forced migration flows that can overwhelm host capacities and resources, in a developing setting characterized by considerable labor informality. They offer important lessons to other countries that are experiencing large refugee or undocumented migration inflows and contemplating such programs.

This paper contributes to the work examining the impacts of interventions to support forced migrants and their host communities. Although this topic has received increasing attention from economists (Verme and Schuettler 2021; Becker and Ferrara 2019), evidence is only starting to emerge on the effectiveness of interventions that help forced migrants to become self-sufficient. Most of the available evidence focuses on humanitarian-based interventions such as cash transfers (Özler et al. 2021; Altindağ and O'Connell 2023; Hızıroğlu Aygün

et al. 2022; Moussa et al. 2022), while few studies assess development-based programs. The only exceptions are Hussam et al. (2021), who examine the mental health impacts of having a job for Rohingya refugees in Bangladesh and document positive effects, and Foged et al. (2022), who study Danish policies to integrate refugees. They examine active labor market policies, welfare transfers, language training, and initial placement. These works, in line with ours, suggest that interventions that foster refugee self-sufficiency—such as the right to work and language training combined with initial placement in strong labor markets— greatly improve long-run labor market outcomes. We contribute by showing that the well-being and self-sufficiency of forced migrants can progress through initiatives such as regularization that enable them to work and access social services. Moreover, we demonstrate this is possible even in a developing country characterized by high labor informality and limited institutional capacities and resources. Combined with previous findings from Bahar et al. (2021) and Ibañez et al. (2020) that document PEP's negligible effects on formal labor markets for Colombian workers and no increase in crimes by migrants, this paper provides strong evidence for facilitating the integration of forced migrants. As most forced migrants report high intentions to stay,[3] host countries are better-off promoting integration, thereby reducing the time it takes for migrants to become self-reliant and contribute to host societies.

We also contribute by assessing the impacts of immigration reforms beyond labor, crime, and political outcomes within developed countries, which had been the focus of previous work (Cobb-Clark et al. 1995, Kaushal 2006, Amuedo-Dorantes et al. 2007, Amuedo-Dorantes and Bansak 2011, Chassamboulli and Peri 2015, Amuedo-Dorantes and Antman 2017, Devillanova et al. 2018, Monras et al. 2018, Freedman et al. 2018, Monras et al. 2020, Fallah et al. 2019, Porto et al. 2021, Bahar et al. 2021, Carrozzo 2022, Deiana et al. 2022).[4] In addition to those outcomes, this paper explores impacts of the regularization program on migrant

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[3] In our sample, 98 percent report they will likely stay in Colombia.

[4] A related literature studies the effects of immigration reforms on crime in developed countries. See Baker (2015) for the United States; Mastrobuoni and Pinotti (2015) for the European Union; and Pinotti (2017) for Italy. Recent work also examines the impact of migration flows on attitudes and perceptions of host populations (see, for example, Dustmann and Preston 2007, Facchini and Mayda 2009, Abramitzky and Boustan 2017, Alesina and Stantcheva 2020, Tabellini 2019, Rozo and Vargas 2021).

well-being as measured by consumption, income, and employment. We further exploit the importance of mediating effects such as access to state and financial services within a developing country. A key contribution concerning the effects of regularization programs in the Global South is that forced migrants in countries with large informal sectors are already part of this sector even without a work permit. Consequently, these programs do not give forced migrants the right to work per se but instead provide them access to the formal employment sector. Regularization may not allow all forced migrants to join the formal sector, but it improves their material labor conditions, gives them access to social safety nets, and enhances their well-being. Moreover, our analysis leverages comparisons between migrants who were regularized and those who were not, a comparison group previously unavailable to researchers. In fact, prior work evaluated the impacts of amnesties by comparing regularized migrants and native workers or newly regularized workers with previously regularized ones, since no similar data was available for irregular ones. We are the first to survey irregular migrants as a comparison group for program beneficiaries. As such, this paper is extremely informative of the counterfactual for forced migrants if amnesties such as DACA in the United States had never been created.

This paper also relates to the large group of prominent studies examining migrant assimilation (Ferrie 1994, Ferrie 1997, Hainmueller et al. 2015, Abramitzky et al. 2014, Abramitzky et al. 2021, Pérez 2021, Nakamura et al. 2021) and the economic and cultural performance of migrants across heterogeneous contexts (Borjas 1991; Antecol et al. 2006; Bauer et al. 2011, Kaushal et al. 2016, Abel 2019, Boberg-Fazlic and Sharp 2020).[5] Unlike most such literature, we focus on how economic rights and access to public social programs change the short-term paths of forced migrants in hosting countries, not on the impacts of migration per se on migrants.

Finally, the work most closely related to ours evaluates PEP's implications for Colombian hosting communities, including impacts on labor markets (Bahar et al. 2021), crime (Ibañez

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[5]A seminal group of papers also examines the impacts of forced migration on education outcomes for refugees (see Becker et al. 2020, Nakamura et al. 2021, and Toews and Vezina 2020).

et al. 2020), and firm development (Bahar et al. 2023) using a difference-in-difference approach to compare areas with different program take-up. Moreover, Urbina et al. (2023) study how PEP helped migrants cope with the Covid-19 pandemic in terms of following health recommendations from public authorities and preventing infections. For this purpose, the authors use mean comparisons between treated and untreated irregular migrants. Our contribution relative to this work is (i) our novel attention to program impacts on migrants' well-being, (ii) the collection of data on program beneficiaries and comparable undocumented migrants—a hard-to-reach population—and (iii) the advantages of measuring the program's true causal effects through regression discontinuity design.

II THE PEP REGULARIZATION PROGRAM

II. A Motivation

As noted above, Colombia is host to some 2.5 million of the seven million Venezuelans who have fled their country since 2016. It is the biggest host of Venezuelan forced migrants worldwide and the second-largest host (after Turkey) of all international forced migrants.

To facilitate regularization and integration, the Colombian government created the PEP program in 2017. PEP grants regular migratory status, a work permit, and access to private services such as financial and digital connection services, as well as social programs including subsidized healthcare, public education, early childhood services, and cash transfers.[6]

Although forced migrants without regularized status have access to basic, standard education and health services (such as emergency care and vaccines), they cannot work in the formal sector. This restricts them to informal jobs without access to social security programs that are often characterized by low wages, poor working conditions, skill downgrading, and exploitation. Likewise, these migrants are ineligible for a whole range of government safety-net programs and are excluded from private services. Additionally, our qualitative evidence suggests that irregular migrants are either unaware of their rights to essential ser-

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[6]Eligibility for these programs is determined by the Sisbén score, a proxy means-testing system used to target social programs. Irregular migrants with PEP can request inclusion in the Sisbén to access these programs.

vices Colombia offers all forced migrants (regardless of status) or unwilling to exercise these rights for fear of being identified and deported. Table A.1 describes the services provided to all Venezuelan forced migrants and the additional services and benefits PEP offers.

The PEP program aimed to foster the integration of forced migrants into Colombia's society and economy by providing access to formal labor markets and entrepreneurship, and by removing barriers to education, healthcare, and other public and private services.

II. B Rollout and eligibility

The Colombian government first introduced two waves of the PEP program that targeted more affluent Venezuelans who migrated through official immigration checkpoints and had lawful migratory status. Nearly 182,500 permits were issued during these two waves but this excluded a large share of Venezuelans in Colombia because the majority had migrated through illegal border crossings, overextended stays, or with a temporary document (*Tarjeta de Movilidad Fronteriza*) that only allowed short stays in border areas.[7]

To address the large share of forced migrants still without regularized status, the Colombian government introduced a third PEP wave in August 2018 for all Venezuelans who had registered in the Administrative Registry of Venezuelan migrants (again, RAMV for its Spanish acronym). RAMV had been implemented between April 6 and June 8, 2018—two months prior to PEP's enactment. Recall that RAMV was not designed to grant work permits and was not advertised in that way; it was only instituted to count the Venezuelan migrants who had not yet regularized their migratory status. However, in August 2018, just a few weeks before leaving office, Colombian President Juan Manuel Santos unexpectedly declared that forced migrants who had registered in RAMV were now eligible for a new wave of the regularization program: PEP-RAMV, the focus of this work. For brevity, we refer to PEP-RAMV simply as PEP. Figure 1 illustrates the rollout of RAMV and PEP.

Unlike previous regularization programs around the world, PEP did not impose eligibility

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[7]The *Tarjeta de Movilidad Fronteriza* facilitated the movement of Venezuelans who lived near the Venezuelan-Colombian border and crossed on a regular basis to shop, visit family members, and attend school, among other reasons. It only permitted free movement inside the border areas and no longer exists.

criteria related to education, sector of occupation, or job sponsorship. To be eligible to apply for PEP, Venezuelan forced migrants only needed to: (i) have previously registered in RAMV; (ii) reside in Colombia by August 2018, when the PEP decree was issued; (iii) have a valid Venezuelan ID or other proof of Venezuelan citizenship; and (iv) have no criminal record or deportation order. PEP processing was free and migrants had to submit applications online. According to official records, 442,462 Venezuelan forced migrants registered in RAMV, and 64 percent of them (281,307 individuals) applied for PEP. The RAMV registry was implemented in 441 of the 1,122 municipalities in Colombia, including those with the highest number of Venezuelan migrants. The RAMV census was advertised on social media, in local newspapers, and through local organizations to support forced migrants.

III   DATA

We estimated PEP's impacts using data from the first wave of the Venezuelan Refugees Panel Survey (VenRePS) that was administered to 2,232 households of forced migrants in Colombia. This section describes the sampling frame, data collection process, and outcomes measured by VenRePS. The methodological design was informed by a qualitative study conducted through 42 semi-structured phone interviews with forced migrants who had and had not registered in RAMV. The purpose of this study was to identify potential challenges to building a sample of RAMV and non-RAMV migrants, and to understand the factors that influenced one's decision to register (or not) in the RAMV and PEP. Some lessons for the design of the sampling frame and data collection protocol are briefly mentioned below, while the overall results of the qualitative study can be found in Romero and Uribe (2021).

III. A   Sampling frame

It is challenging to design sampling frames for forced migrants because they are a vulnerable and hard-to-reach population. This is particularly true in Colombia, where there are no refugee camps and Venezuelan migrants are highly mobile and dispersed throughout the country. For this reason, we drew the sample to be representative of four geographical regions that host the largest share of Venezuelan forced migrants, according to the latest pop-

11

ulation census of 2018: Barranquilla, Bogotá, Medellín (and their metropolitan areas)—three of the largest cities in Colombia—and a fourth "region" of smaller cities.[8] Figure 2 illustrates the geographic distribution of the sample and the number of Venezuelan migrants in the 2018 population census, which can be taken as a proxy of the overall distribution of Venezuelan migrants in the country. Forced migrants in the sample fulfilled the following criteria: (i) were aged 18 or older; (ii) were the household head or partner; (iii) were undocumented at the time of arrival in Colombia; and (iv) arrived in Colombia between January 1, 2017 and December 2018.

We constructed the sampling frame separately for RAMV and non-RAMV forced migrants. For the former, we drew the sample directly from the RAMV census, which had information on 442,462 Venezuelan forced migrants in Colombia. Using the census, we drew a representative sample of 13,083 forced migrant households in the four regions mentioned above, from which we surveyed 1,135 households. For non-RAMV forced migrants, for whom there was no administrative data available, the sampling frame was constructed by combining databases shared by associations of Venezuelan migrants in the four regions above with referrals from forced migrants who were surveyed as part of the RAMV sampling frame. The non-RAMV sampling frame included data from 12,554 non-RAMV households, 81 percent of which were obtained from the organizations. Using this sampling frame, we surveyed a random sample of 1,097 migrant households in the same four regions mentioned above: 527 households referred by the organizations and 570 referred by other irregular migrants. As discussed below, key outcomes were elicited in each household from the household head and partner or another randomly selected adult member. This produced an overall sample of 3,896 forced migrants surveyed in 2,232 households, including 1,947 RAMV and 1,708 non-RAMV individuals.

To assess whether forced migrants in both subsamples were comparable, Table B.1 reports data for migrants in each group according to reasons for migration and pre-migration socioe-

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[8]The fourth region includes Cúcuta, Villa del Rosario, Cali, Cartagena, Riohacha, Maicao, Uribia, Valledupar, Santa Marta, and Arauca.

conomic characteristics. The data suggests that both groups were comparable and that those referred by forced migrant organizations were not more vulnerable before migration. Of 15 characteristics analyzed, only the time of settlement in Colombia was statistically different between groups. While this difference is mechanical (because RAMV migrants migrated earlier in general and likely referred other forced migrants who migrated around the same time), it is also small (less than one month). Moreover, in Figure C.1, we show that date of arrival was uncorrelated with an index constructed with baseline socioeconomic characteristics of migrants in our sample during our period of analysis.

We address concerns related to biases introduced by the characteristics of migrants sampled through different sources by estimating the local effects for RAMV and non-RAMV migrants who migrated around the RAMV cutoff date. First, we checked the internal validity of this empirical strategy by showing that RAMV and non-RAMV migrants who arrived around the cutoff date were comparable based on a rich set of baseline observables (Table 1). Second, we checked for the comparability of RAMV and non-RAMV referrals from organizations and the comparability of RAMV and non-RAMV referrals from other migrants (Tables B.2– B.3). All the exercises confirm the internal validity of the empirical exercise as the vast majority of tests point to no statistical significant differences between groups.

III. B Survey and data collection

The survey was administered over the telephone between October 2020 and January 2021. Originally, we planned in-person data collection but shifted to a telephone mode because of the Covid-19 pandemic. To ensure the quality of the responses during phone interviews, the overall survey and some specific modules were shortened, and key modules (including labor and health ones) were administered only to the household head and partner. Absent a partner, these modules were administered to another adult member randomly selected from the household roster.

The questionnaire had five main modules. The first posed standard sociodemographic questions to all household members. The second module elicited information on the registration

13

process for the RAMV census and PEP, including whether each member had PEP (in any version), its issue date, perceived benefits, and reasons why they had registered in RAMV and PEP or had not. Next, the questionnaire included a labor module following the design of the Colombian Labor Force Survey (*Gran Encuesta Integrada de Hogares*) to make it comparable to existing administrative data on monthly and weekly income; this module also collected data on labor history in Venezuela and Colombia. Fourth, the survey included a module on health and access to healthcare that included the EQ-5D-3L, a standardized scale used to assess health across different dimensions, including physical and mental health, via a Likert scale.[9] The final module offered information at household level on these dimensions: (i) migration, (ii) integration into Colombian society and connections with migrant networks, (iii) prosocial preferences, (iv) housing, and (v) expenditure and remittances.

The qualitative findings informed the survey design and data collection protocols. First, during the focus groups, forced migrants reported that although Venezuelans and Colombians both speak Spanish, there are important differences in everyday words and terms that make it difficult for Venezuelans to understand information from local authorities and NGOs. For this reason, Venezuelans reviewed the survey to ensure appropriate language usage. Second, forced migrants also reported high levels of mistrust because they fear deportation and are often targeted by scams and misinformation via text and social media. To build trust and enhance participation, all surveys were administered by Venezuelan enumerators, many of them forced migrants themselves. Furthermore, Venezuelan migrant organizations disseminated information on the objectives and scope of the survey.

On average, the survey was administered over an average of one hour and 40 minutes, and respondents received an incentive of 27,000 Colombian pesos (about $USD 9) for participating. As most forced migrants are excluded from the financial system, it was hard to deliver the incentives during data collection. For this reason, different delivery options ex-

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[9]The questionnaire has been adapted to different settings including Colombia and Venezuela, and it has demonstrated appropriate psychometric properties and validity. The Spanish-language version adapted to the Venezuelan population was administered to elicit severe symptoms of anxiety and depression.

isted, including cellphone credit, supermarket vouchers, and electronic transfers. Appendix D discusses VenRePS and the data collection procedures in more detail.

III. C   Outcomes

The analysis of PEP's impact focuses on three groups of outcomes: the socioeconomic well-being of forced migrants (herein "migrants"), their access to rights and services, and their labor market outcomes. The first dimension, well-being, is the focus of this article, while the latter two delve into potential mechanisms. Each dimension includes the individual outcomes described below and an index estimated following Kling et al. (2007) to summarize each dimension.

Specifically, the three dimensions of outcomes are: (i) socioeconomic well-being encompasses consumption, income, and employment; (ii) access to rights and services captures effective access to PEP's direct benefits and services that are not available to migrants without it; [10] and (iii) labor market outcomes include holding a formal job, hours worked, reservation wage, job satisfaction (measured as the inverse of the desire to find a different job), and self-employment.

We defined these outcomes and dimensions of interest following a preanalysis plan registered before data collection (see Ibáñez et al. 2020). These were revised from the original version to make the analysis more intuitive concerning PEP's impacts on migrant well-being and whether PEP improved access to rights and services and labor market outcomes, which are two potential mechanisms.[11]

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[10]These include registration in Sisbén, the proxy means-testing system, and access to subsidized healthcare, financial products, and government transfers.

[11]In the preanalysis plan, families of outcomes included: (i) mechanical outcomes, which correspond to the set of outcomes on rights and services and formal employment; (ii) main outcomes, which correspond to socioeconomic well-being; and (iii) secondary outcomes, which correspond to the larger set of labor market outcomes. The preanalysis plan also included a set of outcomes that captured integration, social preferences, and resilience to the Covid-19 pandemic. The analysis on the impacts of the PEP program on integration and social preferences are not reported as we do not identify changes in any of these outcomes. Finally, the impacts of the PEP program on Covid-19 resilience are analyzed separately in Urbina et al. (2023).

III. D Descriptive statistics

Table 2 reports descriptive statistics on the summary indices and individual outcomes. The data in the table is stratified between RAMV and non-RAMV migrants to describe the differences in well-being, access to rights and services, and labor market outcomes between these two groups, the latter being ineligible for PEP.

This table indicates that RAMV migrants were better off at the time of data collection across several dimensions of interest, with statistically significant and meaningful differences in all summary indices and in 11 out of 12 individual outcomes. First, RAMV migrants had higher levels of socioeconomic well-being—including higher income and consumption— and a higher likelihood of being employed. Second, RAMV migrants also had more access to rights and services, with large differences across all outcomes. While this points to the effectiveness of PEP, access to rights and services is far from complete. For instance, at the time of the survey, 50 percent of RAMV migrants did not have access to Sisbén, 77 percent did not have access to subsidized healthcare, and 76 percent had been unable to access the financial system. The data thus suggests the existence of other barriers, including weak institutional capacities; lack of information among migrants, civil servants, and service providers; and discriminatory practices, all of which accord with our qualitative findings. Finally, the data also substantiates more positive labor market outcomes including a higher reservation wage, higher job satisfaction, and a lower likelihood of self-employment.

To summarize, Table 2 highlights meaningful and statistically significant differences of 0.57 sd in the socioeconomic well-being index; 3.45 sd in the access to rights and services index; and 1.20 sd in the labor market outcomes index.

IV EMPIRICAL STRATEGY

IV. A Threats to validity

Despite the meaningful differences between RAMV and non-RAMV migrants, the descriptive analysis of the previous section cannot be taken to portray PEP's causal effects on mi-

grant well-being because of two main threats to identification. First, as Table 3 highlights, RAMV migrants migrated earlier (by seven months, on average), meaning some differences could be due to longer assimilation time. Second, although PEP was introduced unexpectedly and RAMV was introduced earlier without any announcement or expectation that it would be used to provide benefits, registration in both was still voluntary. Hence, it is possible that RAMV and non-RAMV migrants were already different or that the decision to register was driven by unobservable characteristics correlated with refugee well-being.

The data in Table 3 helps to ease the first concern by demonstrating that RAMV and non-RAMV migrants were largely comparable across a range of pre-RAMV sociodemographic characteristics, including retrospective socioeconomic characteristics in Venezuela (prior to migrating) and factors that might be correlated with migrating to Colombia. However, the data on reasons for not registering in RAMV and PEP is suggestive of potential confounding factors (Tables E.1–E.2). For instance, the decision to not register in RAMV stemmed from lack of information, lack of proof of Venezuelan nationality, and inability to take time off from income-generating activities. The decision to not register in PEP also included lack of information and loss of proof of RAMV registration, which was sent to registered email accounts. To the extent that these characteristics might be correlated with the outcomes of interest and with unobserved factors such as connections to relevant networks and entrepreneurship, the simple Intent-to-Treat comparisons between RAMV and non-RAMV migrants would result in biased estimates of PEP's true effects.

IV. B   Identification strategy: Fuzzy regression discontinuity design

To address these challenges, we base our empirical strategy to identify PEP's causal effects on a fuzzy regression discontinuity design (RDD).[12] The fuzzy RDD exploits the discontinuity in the likelihood of receiving PEP based on the RAMV cutoff date. As described earlier, only migrants who had registered in RAMV were eligible to apply for PEP. The RAMV reg-

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[12]The preanalysis plan proposed both the discontinuity design and reduced-form Intent-to-Treat and IV estimates. This article focuses on the RDD for brevity since it offers the strongest causal evidence. The ITT, however, is consistent with the descriptive analysis in Table 2.

istry was open between April 6 and June 8 of 2018, meaning that migrants who arrived in Colombia after June 8 could not register in RAMV and thus were ineligible for PEP. Furthermore, the RDD takes advantage of the fact that PEP was enacted unexpectedly, was available to all migrants registered in RAMV, and was not paired with other eligibility requirements or policies, which enabled us to rule out behavioral and anticipatory effects as well as simultaneous treatments that have precluded the analysis of similar programs. Specifically, the fuzzy RDD compares eligible and ineligible migrants on each side of the RAMV cutoff date under the following two-stage specification:

$$\mathbb{1}[PEP_i = 1] = \beta_1 + \beta_2 \mathbb{1}[T_i < \bar{T}] + \beta_3 f(d_i) + \theta' X_{ij} + \gamma' Z_j + \phi + \epsilon_{ij} \tag{1}$$

$$Y_{ij} = \alpha_0 + \alpha_1 \mathbb{1}[\widehat{PEP_i = 1}] + \alpha_3 f(d_i) + \omega' X_{ij} + \Psi' Z_j + \phi + \mu_{ij} \tag{2}$$

Equation 1 models the likelihood of receiving PEP based on whether Venezuelans migrated to Colombia before the RAMV registry closed, while equation 2 models the effects on the outcomes of interest Y_{ij} as a function of the predicted likelihood of having PEP. Specifically, $\mathbb{1}[PEP_i = 1]$ is an indicator variable that takes the value of one for migrants with PEP, T_i and $\bar{T}$ are the date of migration to Colombia and the date when the RAMV registry closed, respectively, and $\mathbb{1}[T_i < \bar{T}]$ is an indicator variable for whether the migrants arrived in Colombia when the registry was still open. Therefore, the treatment is equal to one for migrants who arrived in Colombia before RAMV closed and had the opportunity to register in RAMV and, subsequently, in PEP. As many PEP benefits are defined for the individual holder (e.g., the right to work), the PEP treatment variable $\mathbb{1}[PEP_i = 1]$ is defined at the individual level for the majority of outcomes. For other outcomes, however, the treatment is defined at the household level because access is legally defined at this level (e.g., access to Sisbén and government transfers), or because outcomes were measured at the household level (e.g., consumption) in the survey.

The running variable in the fuzzy RDD is d_i, the distance measured in days between the mi-

grant's date of arrival and June 8, 2018 ($d_i = T_i - \bar{T}$). In turn, $f(d_i)$ is a local polynomial of the running variable, which is defined as a local linear polynomial allowing the linear relationship to differ on both sides of the cutoff (before and after the RAMV closing date). Following Cattaneo et al. (2020), the optimal bandwidth choice for robust bias-corrected inference is estimated using the mean squared error optimal bandwidth (MSERD) and is estimated separately for each outcome; that is, each outcome has its own optimal bandwidth and thus a different number of observations for inference. For robustness, all results are estimated using alternative functional forms of the polynomial and a range of different bandwidths.

The RDD model includes a set of vectors X_{ij} and Z_i of baseline individual and household controls, respectively. Specifically, the vector X_{ij} of pre-RAMV individual controls includes age, gender, and years of education before migration; labor history in Venezuela; time of settlement in Colombia; and the time gap between the last job in Venezuela and migration to Colombia. Vector Z_i includes pre-migration household characteristics including demographic composition (household size, composition, and number of children); access to public services; house ownership; whether the household had a smartphone, and variables related to the migration decision such as whether they had family or friends in Colombia, knew about job opportunities before migrating, and whether they migrated for health reasons. ϕ is a vector of fixed effects for the sampling city and state of residence. Finally, ϵ_{ij} and μ_{ij} are the two error terms. All estimates also report the False Discovery Rate (FDR) q-values to adjust for multiple hypothesis testing.

IV. C Validity of the discontinuity

Figure 3 illustrates the discontinuity in the probability of treatment for migrants who arrived in Colombia after June 8, 2018. The figure illustrates the mean probability of PEP application for all migrants in the sample on a weekly basis (blue line). This figure confirms the existence of a sharp discontinuity in the probability of applying for PEP after June 8, 2018, when the RAMV registration closed. Surprisingly, the figure also highlights that the likelihood of having PEP was not zero for migrants who arrived after the RAMV closed even though the

official PEP decree declared otherwise. This pattern is likely due to administrative and bu-reaucratic loopholes that may have let non-RAMV migrants apply for PEP. Importantly, we know these discrepancies were not due to recall error regarding the migration date because we compared the reported arrival dates in our survey with those reported on PEP applications to migration authorities; in 98.2 percent of cases, they were the same. Moreover, results from the qualitative survey suggest that the arrival date was extremely salient for migrants, marking as it did the end of one life and the start of another. Finally, these discrepancies are also not due to misinformation or misreporting by migrants without PEP since we requested proof of PEP registration for anyone who reported applying for PEP.

For completeness, our main results include the full sample depicted in Figure 3. Robustness tests show the results are remarkably robust (both in magnitude and statistical significance) when the observations of these "defiers" are dropped (see Figure F.1 and Tables F.1– F.3).

Figure 3 also plots gray bars that illustrate the density of migrants who arrived in Colombia each week. Visual inspection of the figure indicates no discontinuity in the number of individuals who arrived in Colombia before or after June 8, 2018. Further, the McCrary test rejects the existence of any discontinuity in the density of the sample or manipulation by individuals (p-value=0.96). This is expected because when RAMV opened, it was not intended to regularize migrants, and there were no public discussions, announcements, or expectations in this regard. Moreover, the data from the survey indicates that only 0.5 percent of respondents reported migrating to register in RAMV.

Panel B in the figure illustrates the discontinuity in the probability of treatment, estimated as the average treatment take-up in each bin. This figure illustrates the discontinuity using a linear polynomial to confirm the existence of a large, robust discontinuity in the probability of treatment around June 8, 2018. At each point, the figure illustrates the mean probability of treatment in each bin and its 95 percent confidence intervals. Figure G illustrates the discontinuity fitting a quadratic polynomial. Both figures illustrate the existence of a large discontinuity in the likelihood of applying for PEP around June 8, 2018.

IV. D Validity of the local continuity assumption

Table 1 examines whether migrants who migrated just before and after the RAMV cutoff date were similar across a range of individual and household characteristics. For this purpose, a sharp RDD model was estimated with a set of pre-migration and pre-RAMV controls used in the RDD as the outcome variables. Only one out of 22 estimated coefficients is statistically significant for the robust RDD estimator. The conventional, bias-corrected, and robust estimators, illustrated in Figure G.2, further confirm the validity of the local continuity assumption. Moreover, Tables B.2–B.3 report the same exercise but restrict the sample of non-RAMV migrants obtained through referrals or refugee organizations. The data in both tables confirms that the local continuity assumption holds regardless of the sample of non-RAMV migrants.

Finally, we present robust evidence that the socioeconomic characteristics of migrants are uncorrelated with their arrival date during our period of analysis. For this purpose, we first regress the arrival date on a rich set of baseline socioeconomic characteristics before the program onset (and the RAMV registration). The results show that the covariates are not jointly statistically significant (Table C.1). Second, we create an index of baseline socioeconomic characteristics and plot them relative to the arrival date in Figure C.1. The figure illustrates that there is no clear correlation between both variables.

V RESULTS

Figure 4 provides a preview of the results by illustrating the standard graphical representation of the fuzzy RDD for the three indices that summarize the families of outcomes. For brevity, the RD plots of the individual outcomes are displayed in Figures H.1–H.3. The observed discontinuity at the cutoff represents the difference in each outcome around the RAMV closing date. The line illustrates the prediction that comes from estimating equations 1 and 2 through a two-step procedure and the respective 95 percent confidence intervals, while the dots represent the averages of each index in each bin.

A visual inspection of the four figures highlights sizeable differences in the indices of socioeconomic well-being and access to rights and services between migrants who arrived before June 8, 2018 and could register in RAMV and be eligible for PEP, and those who arrived later and could not. It also illustrates positive effects of the program on labor market outcomes, although the evidence is noisier for this index relative to the other two. The sections below detail the main results and multiple robustness tests.

V. A   Socioeconomic well-being

Table 4 reports estimates of PEP's impact on migrants' socioeconomic well-being. Column (1) reports the estimated coefficient for the summary index, while Columns (2)–(4) report coefficients for the individual outcomes in this dimension: consumption per capita, labor income, and employment.[13] For each estimated coefficient, the table includes the estimated standard error and the FDR q-value that adjusts for multiple hypothesis testing.

The results in Table 4 indicate PEP had positive and substantial effects on migrants' socioeconomic well-being, represented by a positive impact of 1.2 sd on the summary index. When the index is unpacked, the results point to statistically significant and economically meaningful effects across the three individual outcomes. PEP led to a positive effect of 48 percent on per capita consumption, 22 percent on labor income, and 26 percentage points on the probability of employment for migrants with PEP, compared with non-PEP migrants. The RD plots for each outcome in this dimension are depicted in Figure H.1.

To understand the effect on consumption, a useful benchmark comes from the impacts of conditional and unconditional cash transfers in different countries. Research in Colombia, Mexico, and Indonesia found that conditional cash transfers had impacts of at most 15 percent on total consumption and 23.1 percent on food consumption (Attanasio and Mesnard 2006; Angelucci and Attanasio 2009; Cahyadi et al. 2020). Perhaps more relevant given our

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[13]The logarithm of total annual consumption per capita and the logarithm of total labor income (sum of wage, extra payments, and revenue from independent work) are expressed in logs of million Colombian pesos (COP). Employment is measured through an indicator variable equal to one when a person is employed as a wage earner, independent, or family worker.

population of interest, cash transfers or vouchers to refugees in Turkey and Lebanon had effects ranging from five to 23 percent on aggregate consumption (Özler et al. 2021; Altindağ and O'Connell 2023; Chaaban et al. 2020). Although the context of each program and country is different, these comparisons highlight that PEP's impact on per capita consumption was two or even three times larger than those of the conditional and unconditional cash transfers cited above.

PEP's large effects on consumption could stem from the way in which the Colombian government's response moved beyond the standard humanitarian approach to let forced migrants access different rights and services (including public transfers) and restored their productive capacities by allowing them to work. The results in Columns (3)–(4) indicate the latter mechanism by demonstrating PEP's statistically significant (local) effects on labor income and employment (although the estimated effects for employment are less precisely estimated). Both effects are large and economically meaningful, especially considering they correspond to short-term impacts that emerged during the Covid-19 pandemic, which had strong negative effects on the Colombian labor market. [14]

Figure H.1 illustrates large differences in outcomes around the RAMV cutoff date. Furthermore, the results above are robust to different specifications. First, Figure 5 illustrates the estimated coefficients of the fuzzy RDD across a range of bandwidths, encompassing the different optimal bandwidths suggested by Cattaneo et al. (2020). For the cases of consumption and labor income, the figures illustrate that the effects are large but imprecisely estimated under tight bandwidths; they become statistically significant and remarkably robust across different bandwidths. Although the effects do wane under larger bandwidths, they are nevertheless qualitatively robust. The estimated coefficients for employment are imprecise but remarkably stable, suggesting issues of precision rather than biases in the coefficients.

Second, Tables I.1–I.4 report the estimated coefficients for the aggregate index and individ-

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[14]These negative effects included an increase of over 100 percent in the unemployment rate between June 2019 and 2020.

ual outcomes under different specifications of the RDD model. These include the different optimal bandwidths proposed by Cattaneo et al. (2020) and different kernels under the local-linear polynomial, a polynomial of degree zero, and a quadratic polynomial. By and large, PEP's estimated effects on migrants' socioeconomic well-being are qualitatively robust under the different specifications. The only exceptions are (i) the results on labor income using the quadratic polynomial and (ii) the employment results. The latter are not statistically significant across different specifications but the estimated coefficients are remarkably stable, suggesting lack of statistical power under the RDD. Finally, Figure H.1 illustrates the RD plots under the quadratic polynomial and the sharp discontinuity in outcomes, albeit less so for labor income.

V. B   Access to rights and services

In this subsection and the following one, we focus on PEP's effects on access to rights and services and on detailed labor market outcomes in order to understand the mechanisms behind the large impacts on migrants' well-being.

Table 5 reports estimates of PEP's impact on migrants' access to rights and services. Specifically, Column (1) reports the estimated coefficient for the summary index, while Columns (2)–(5) report coefficients for the individual outcomes in this dimension: Sisbén enrollment, access to subsidized healthcare and financial products, and government transfers. As in the previous analysis, the table includes the estimated standard errors and the FDR q-value that adjusts for multiple hypothesis testing for each coefficient.

The results in Table 5 indicate PEP positively and substantially improved migrants' access to the different rights and services defined by law. For instance, Column (1) shows PEP had a large and statistically significant effect of 4.42 sd on the summary index. When we break down the overall effects by individual outcomes, the results further indicate sizeable and statistically significant effects on each dimension, including a 0.57 pp effect on the likelihood of enrollment in the Sisbén, a 0.27 pp effect on the likelihood of having access to the subsidized healthcare system, and a 0.44 pp effect on the likelihood of having a bank account

or another financial product. Moreover, Column (5) indicates that the likelihood of receiving government transfers is 0.22 higher for migrants who arrived before the RAMV closed and were therefore eligible for PEP. To provide a "visual" confirmation of the results, Figure H.2 includes the RD plots for individual outcomes in this dimension. The figures highlight the sizeable discontinuities for all outcomes except for government transfers, which follows a downward-sloping linear trend according to the arrival date in Colombia.

All the above effects are substantial considering that access across all outcomes is close to zero for ineligible migrants (as reported in the second-to-last row of Table 5) and that these are short-run effects that emerged less than two years after PEP's introduction. This means the Colombian government was able to expand social protection services in a short period of time to serve Venezuelan migrants, although this occurred with some limitations from both the supply and demand sides as discussed during the descriptive analysis.

The qualitative findings enable us to understand the different ways in which improved access to rights and services helps to explain PEP's positive effect on migrants' well-being in addition to the direct effects on income and employment. First, migrants who participated in the focus groups and interviews reported that having access to these services brought "peace of mind" and enabled them to think beyond immediate and primary needs. This could have spurred changes in behavior and indirectly contributed to their socioeconomic well-being. Second, access to Sisbén and subsidized healthcare likely had a direct effect on their health and well-being and thus enhanced their economic productivity and capacities. Third, these migrants also reported that access to these services reduced out-of-pocket health expenses, which can be thought of as an income effect on their consumption patterns. Fourth, they also reported that access to financial services was instrumentally valuable to their socioeconomic integration because it permitted them to pursue jobs in different sectors, including the gig economy, where workers need bank accounts to be paid by customers or employers. Finally, Sisbén enrollment was essential to receive monthly transfers from the "Ingreso Solidario" program established during the Covid-19 pandemic. These transfers were sizeable,

corresponding to approximately 20 percent of the minimum monthly wage in Colombia, and likely bolstered migrants' well-being and resilience during the crisis.[15]

PEP's estimated effects on migrants' access to rights and services are also robust under different specifications, albeit less so for government transfers. Figure 6 illustrates that the estimated coefficients of PEP's impact are stable and remain statistically significant under a range of different bandwidths for the summary index and access to Sisbén, subsidized healthcare, and financial products. Moreover, estimates across all dimensions become more statistically precise as the bandwidth and number of observations increase (as expected). By contrast, the estimated coefficients for the effect on the likelihood of receiving government transfers dwindle as the bandwidth increases (from an estimated effect of 0.22 pp under the optimal bandwidths to an effect of 0.14 pp for bandwidths larger than 250 days) and become marginally significant. Furthermore, the results in Tables I.5 – I.9 show that the estimated coefficients for the summary index and individual outcomes are remarkably stable and robust under different functional forms, optimal bandwidths, and kernels. Finally, Figure H.2 illustrates the RD plot under the quadratic local polynomial and highlights sharp discontinuities in outcomes, consistent with PEP's positive effects, for the summary index and individual outcomes, except for government transfers.

V. C   Labor market outcomes

In addition to PEP's positive effects on labor income and employment documented in Table 4, this subsection hones in on specific labor market outcomes to better understand how PEP supported improvements in the income and employment opportunities of migrants and their socioeconomic well-being. Table 6 reports the results of the fuzzy RDD for PEP's effect on an index that summarizes this dimension (Column (1)) and on the individual outcomes, including the likelihood of having formal employment, the number of hours worked, the reservation wage, job satisfaction (measured as the inverse of the desire to find a different job), and the likelihood of being self-employed.

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[15]PEP's effects on migrants' resilience to the Covid-19 pandemic are analyzed in detail in Urbina et al. (2023); overall impacts of the "Ingreso Solidario" program are studied by Londoño-Vélez and Querubin (2022).

By and large, all estimated coefficients are imprecisely estimated and statistically insignificant, both individually and after adjusting for multiple hypothesis testing. Nevertheless, they point to PEP's economically meaningful effects across this dimension and are also qualitatively consistent with the descriptive analysis of Table 2. This could signal a lack of statistical power in the fuzzy RDD rather than the absence of positive effects. For example, the results in Columns (1) and (2) point to positive effects of 0.39 sd on the summary index and 10.8 pp on the likelihood of having a formal job. The latter effect, which is marginally significant before adjusting for multiple hypothesis testing, is sizeable considering (i) these are short-term impacts, (ii) they emerged during the Covid-19 pandemic, and (iii) accounting for the high informality of Colombian labor markets. By 2020, 55 percent of the labor force in the main cities was employed in formal activities compared to 24–31 percent for Colombians in the first three deciles of the income distribution. This means the short-term effect of regularization would correspond to one-fifth of the formalization rate for the average Colombian and one-third for those in the first three income deciles. Other results in Table 6 also point to positive and big but imprecisely estimated effects on job satisfaction (11.9 pp) and a reduction of 47 percent in self-employment. These effects are substantial, corresponding to 17 and 110 percent effects vs. average rates for non-RAMV migrants.

Figure H.3 illustrates the RD plots where discontinuities in outcomes are visible for the summary index, job formalization, reservation wage, and self-employment—albeit indicating imprecise estimates. Furthermore, the robustness analysis confirms the main insights above: PEP's effects on the different labor outcomes are not statistically significant under alternative bandwidths (Figure 7) or different specifications (Tables I.10–I.15) and are not visually striking under the quadratic polynomial RD plot (Figure H.3). Yet, when looking more closely at the robustness tests for formal and self-employment, the estimated coefficients are large, remarkably robust in magnitude, and marginally significant across some specifications, which again may suggest a lack of statistical power in the fuzzy RDD rather than an absence of positive effect. The combined results suggest positive effects on the qual-

ity of employment, including an increase in the rate of labor formality and a reduction in self-employment, rather than effects on the intensive margin such as fewer hours worked, job satisfaction, and reservation wages.

V. C.1   Are the results driven by higher formalization rates?

The following analysis provides descriptive evidence to discern whether job formalization is associated with more positive labor market outcomes and if it can explain PEP's positive effect on migrants' socioeconomic well-being.

Table J.1 reports mean differences in outcomes between RAMV migrants with PEP who have formal and informal jobs. Overall, migrants with formal jobs have higher socioeconomic well-being (measured by the summary index), consumption per capita, and income, as observed in Panel A. Likewise, the data in Panel B indicates lower access to subsidized healthcare and to government transfers, which is consistent with job formalization and less socioeconomic vulnerability. Finally, the data in Panel C highlights that migrants with formal jobs have jobs of better quality (as summarized by the index), are more satisfied with their jobs, and are less likely to be self-employed.

These results are suggestive of the way in which PEP improved migrants' well-being and socioeconomic prospects by enabling access to formal and quality jobs. Yet, the data in Tables J.2–J.3 also indicates that migrants who are men, more educated, and who had better living and working conditions in Venezuela were also more likely to find formal employment. These characteristics could directly affect well-being and labor outcomes or help explain which migrants were more able to find formal jobs.

Finally, it is likely that even though a large share of RAMV migrants did not switch to the formal sector after receiving PEP, they nevertheless improved their employment conditions. Tables K.1–K.2 support this idea by illustrating that migrants with PEP changed sectors more often than non-PEP migrants, arguably in search of better jobs. Migrants with PEP could also have remained in the same job but likely had more negotiating power to upgrade their

remuneration and labor conditions.

VI DISCUSSION

We analyze the short-term effects of a regularization program on life outcomes of Venezuelan forced migrants in Colombia. The PEP program granted them a work permit and access to all government social programs for two years. Migrants who enrolled in the program experienced dramatic improvements in socioeconomic well-being, measured as consumption per capita and labor income, relative to other migrants. These effects seem to emerge from improved access to social public programs and financial markets as well as better employment conditions such as a higher probability of having a job and higher formalization rates. As such, migrants with a PEP visa became more self-sufficient than those without one.

PEP's effects on the labor formalization of migrants, however, remained around 10 pp. Although this impact is not negligible, the formalization rates of regularized migrants are still one-fifth of those for the host population. This could be due to several factors. First, the pandemic and consequent economic crisis made additional job creation difficult. Second, migrants reported other hurdles that prevented them from securing formal employment, including the struggle to get a bank account. Third, some formal firms might not have recognized the validity of the PEP visa. Fourth, migrants might have been reluctant to move to formal employment as they would then have to pay taxes. Previous work by Bahar et al. (2021) suggests there is a large premium for working in Colombia's formal sector, so the last hypothesis is an unlikely explanation. Fifth, there might not have been demand for workers in the formal sector. According to the Colombian Statistics Agency, informal employment accounted for roughly half of total employment in 2019. As such, formal jobs are probably available to individuals who have high education, are well-connected, and have been working in Colombia for many years. Forced migrants have fewer networks and—even if educated—face barriers to education certification and validation. Future research should evaluate the effectiveness of interventions that target these barriers to increase the formalization rate of forced migrants.

Previous findings by Bahar et al. (2021) suggest PEP had negligible effects on Colombian labor markets. Specifically, their results point to precisely zero effects for Colombian native workers. Those results and ours, which establish large and positive program effects on migrants' welfare, argue strongly for the formalization of migrants.

In doing so, this paper echoes current calls to change the focus of refugee programs from humanitarian aid to development in order to foster self-reliance and ease pressure on host countries, as posited by the Global Compact on Refugees (UNHCR 2018). Current programs implicitly assume that refugees return home after a short period of time and hence rely on short-term humanitarian relief (MacPherson and Sterck 2021; Altindağ and O'Connell 2023). However, displaced people seldom return home and these programs are not designed to address long-term vulnerabilities or to promote recovery (UNHCR 2020). Although recent evidence on the impact of cash/voucher programs for refugees shows improvements in consumption and food security as well as less reliance on costly coping strategies, it also suggests that benefits dissipate a few months after programs end (Özler et al. 2021; Altindağ and O'Connell 2023; MacPherson and Sterck 2021; Chaaban et al. 2020). In contrast, we propose that regularization is an effective alternative. More research is needed to ascertain whether these effects persist and alleviate poverty in the medium to long term.

Missing from this puzzle, of course, are the domestic fiscal and political impacts of the PEP program. Although these effects are outside the scope of this paper, early evidence by Rozo et al. (2023) suggests that PEP has not influenced the voting behaviors or political perceptions of Colombian nationals. Moreover, recent work by Clemens (2021) on the fiscal impacts of refugees in the United States indicates positive effects for the average immigrant with less than a high school education. All in all, PEP's sizeable short-term effects along several dimensions imply that this type of program might be more effective in promoting the social and economic integration of migrants and in reducing their dependence on aid than are traditional humanitarian programs.

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Figure 1. Registry and Program Rollout: RAMV Census Registration, PEP Application, and Data Collection
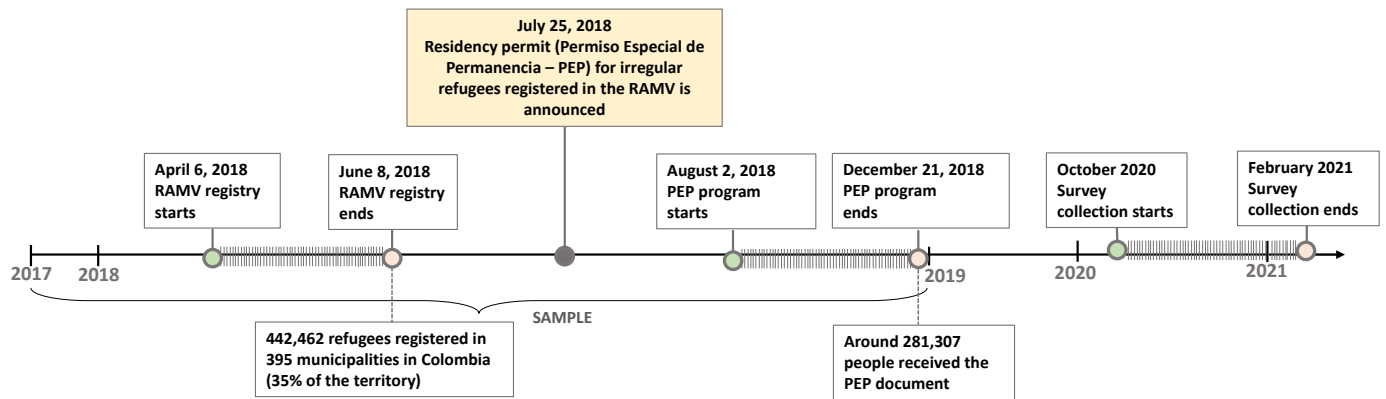
Figure 2. Sample and Distribution of Venezuelans in Colombia
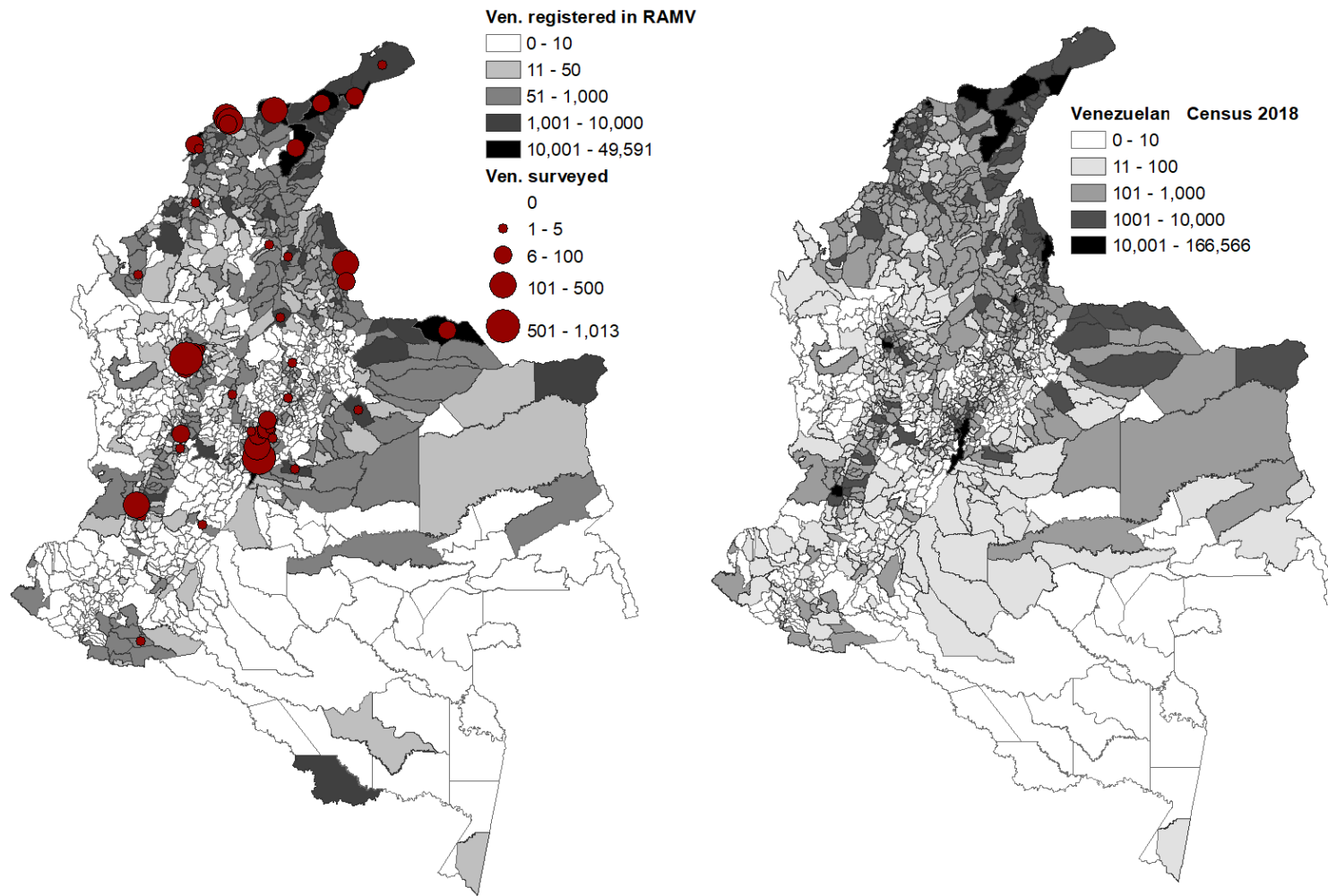
Notes: The left-hand panel of the figure illustrates in shades the number of Venezuelans registered in the RAMV census; the red circles depict the surveys carried out per municipality. The right-hand panel illustrates the number of Venezuelans per municipality reported in the 2018 Colombian census, a proxy of the overall distribution of migrants in the country. The correlation between the sample and the 2018 Colombian census registry is 0.93.

Figure 3. Discontinuity in the Probability of Treatment on June 8, 2018

(a) Panel A: Probability of Treatment by Week of Arrival
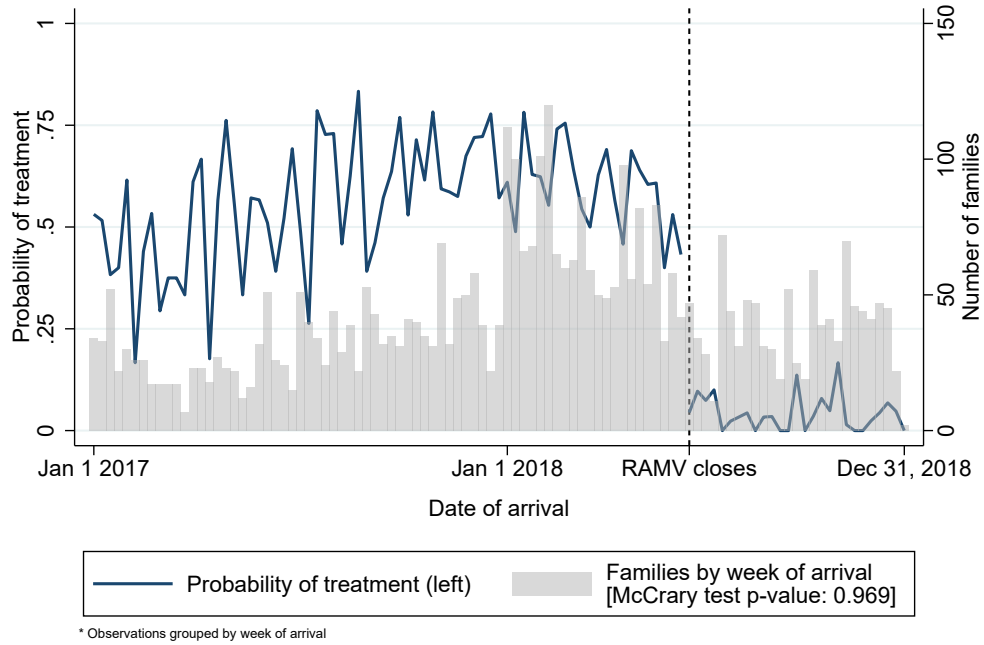
(b) Panel B: RD Plot with Fitted Local-linear Polynomial
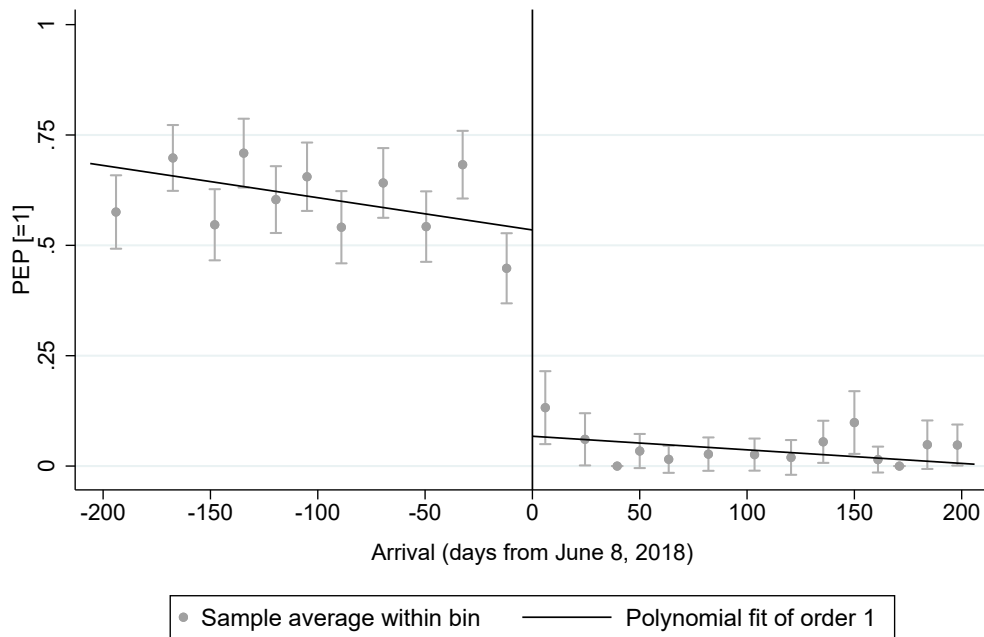
Notes: Panel A illustrates the weekly probability of treatment for all of the sample on a weekly basis (blue line) and the number of observations in each week in the survey (gray bars). Panel B illustrates the discontinuity in treatment probability for 200 days around June 8, 2018, when the RAMV census closed. The bars illustrate 95% confidence intervals.

Figure 4. Fuzzy RD Plots with Fitted Local-linear Polynomial
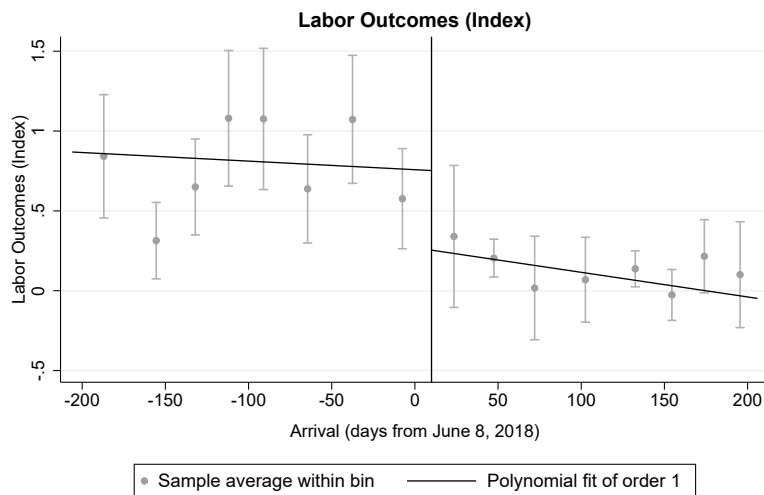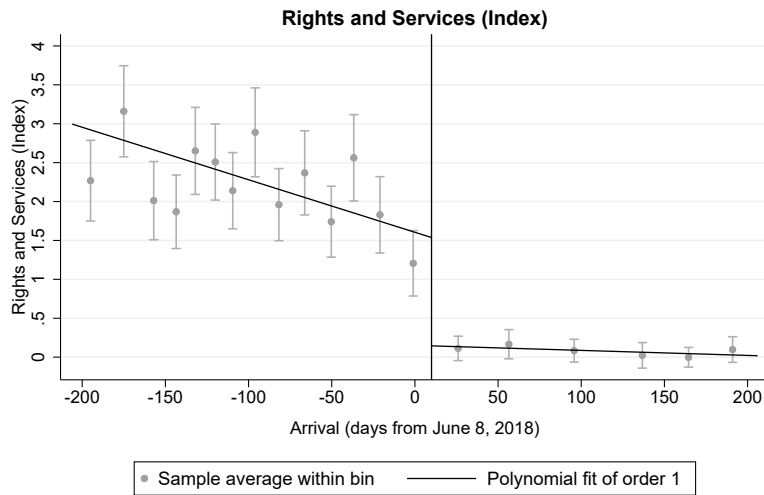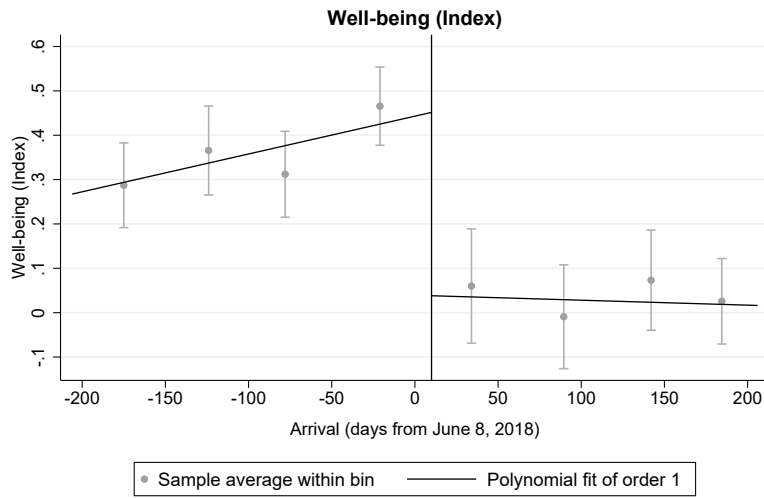
Well-being (Index)

Arrival (days from June 8, 2018)

• Sample average within bin —— Polynomial fit of order 1

Rights and Services (Index)

Arrival (days from June 8, 2018)

• Sample average within bin —— Polynomial fit of order 1

Labor Outcomes (Index)

Arrival (days from June 8, 2018)

• Sample average within bin —— Polynomial fit of order 1

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

Figure 5. Socioeconomic Well-being Using Different Bandwidths (RD Estimates)
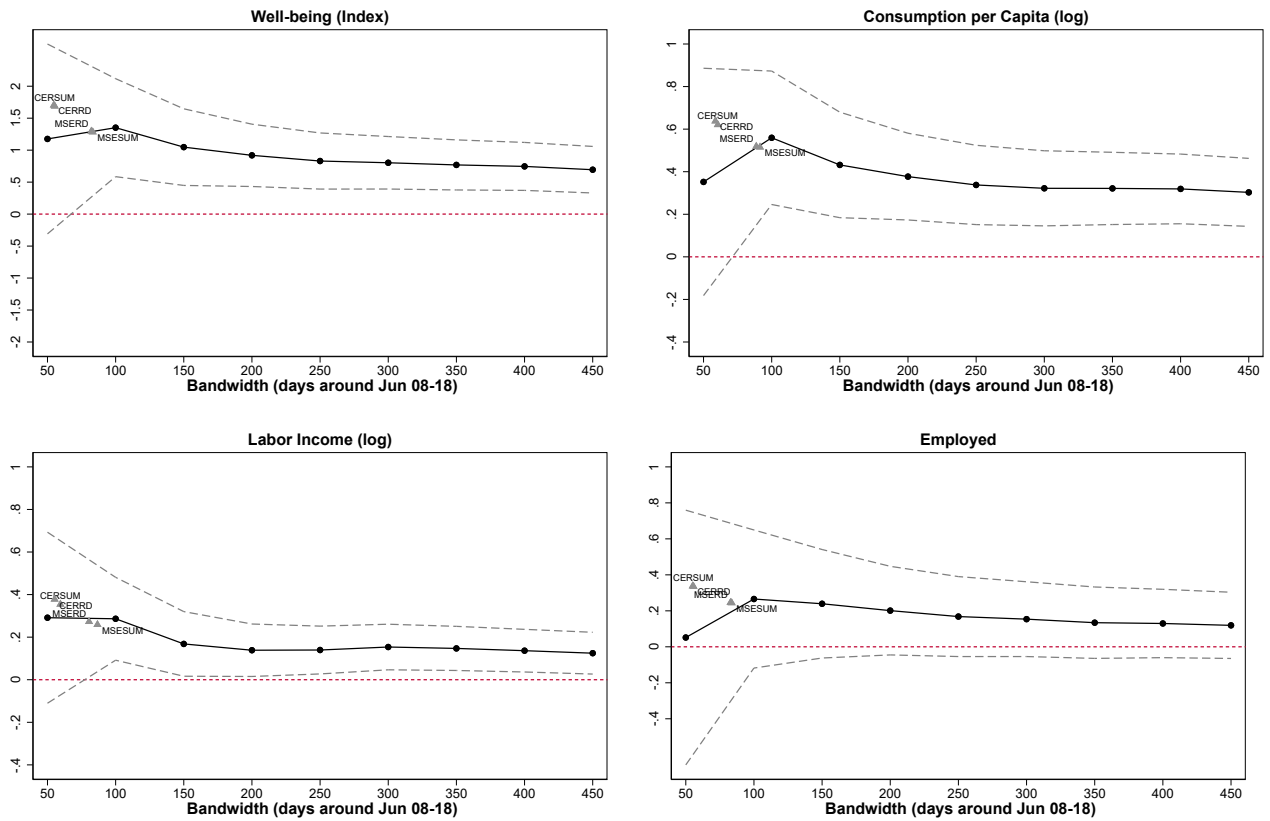
Notes: Robust bias-corrected point estimators and confidence intervals for different bandwidths measured in days around June 8, 2018. In black, manually inputed ad hoc bandwidths with a frequency of 20 days. In gray, optimal bandwidths according to different methodologies: (i) mean squared error (MSE), (ii) MSE for the sum of regression estimates (MSESUM), (iii) coverage error rate (CER), (iv) CER for the sum of regression estimates (CERSUM). We run the same specification specified in Table 4. Confidence intervals are at the 95% significance level.

Figure 6. Rights and Services Using Different Bandwidths
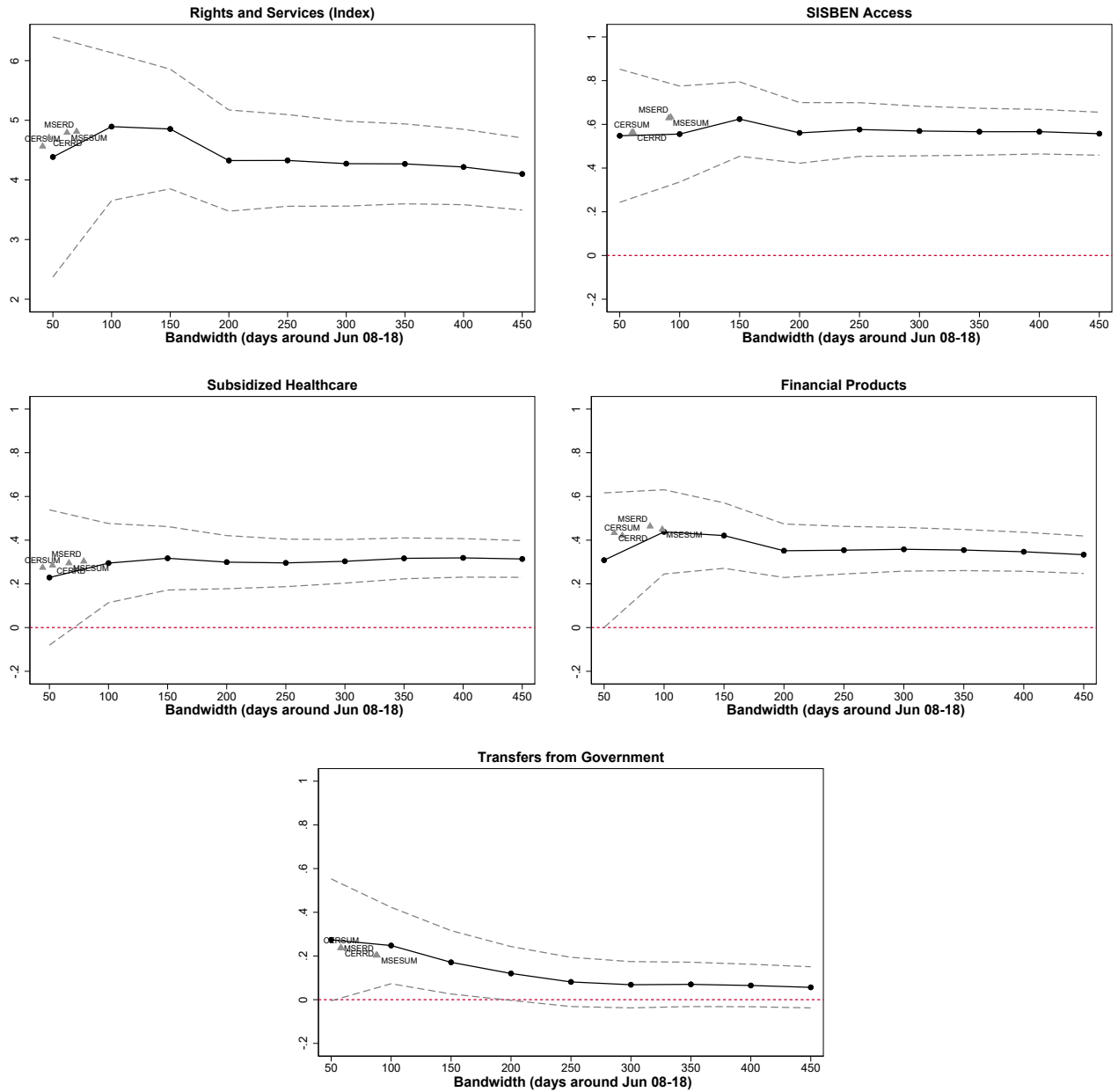
Notes: Robust bias-corrected point estimators and confidence intervals for different bandwidths measured in days around June 8, 2018. In black, manually inputed ad hoc bandwidths with a frequency of 20 days. In gray, optimal bandwidths according to different methodologies: (i) mean squared error (MSE), (ii) MSE for the sum of regression estimates (MSESUM), (iii) coverage error rate (CER), (iv) CER for the sum of regression estimates (CERSUM). We run the same specification specified in Table 5. Confidence intervals are at the 95% significance level.

Figure 7. Labor Outcomes Using Different Bandwidths (RD estimates)
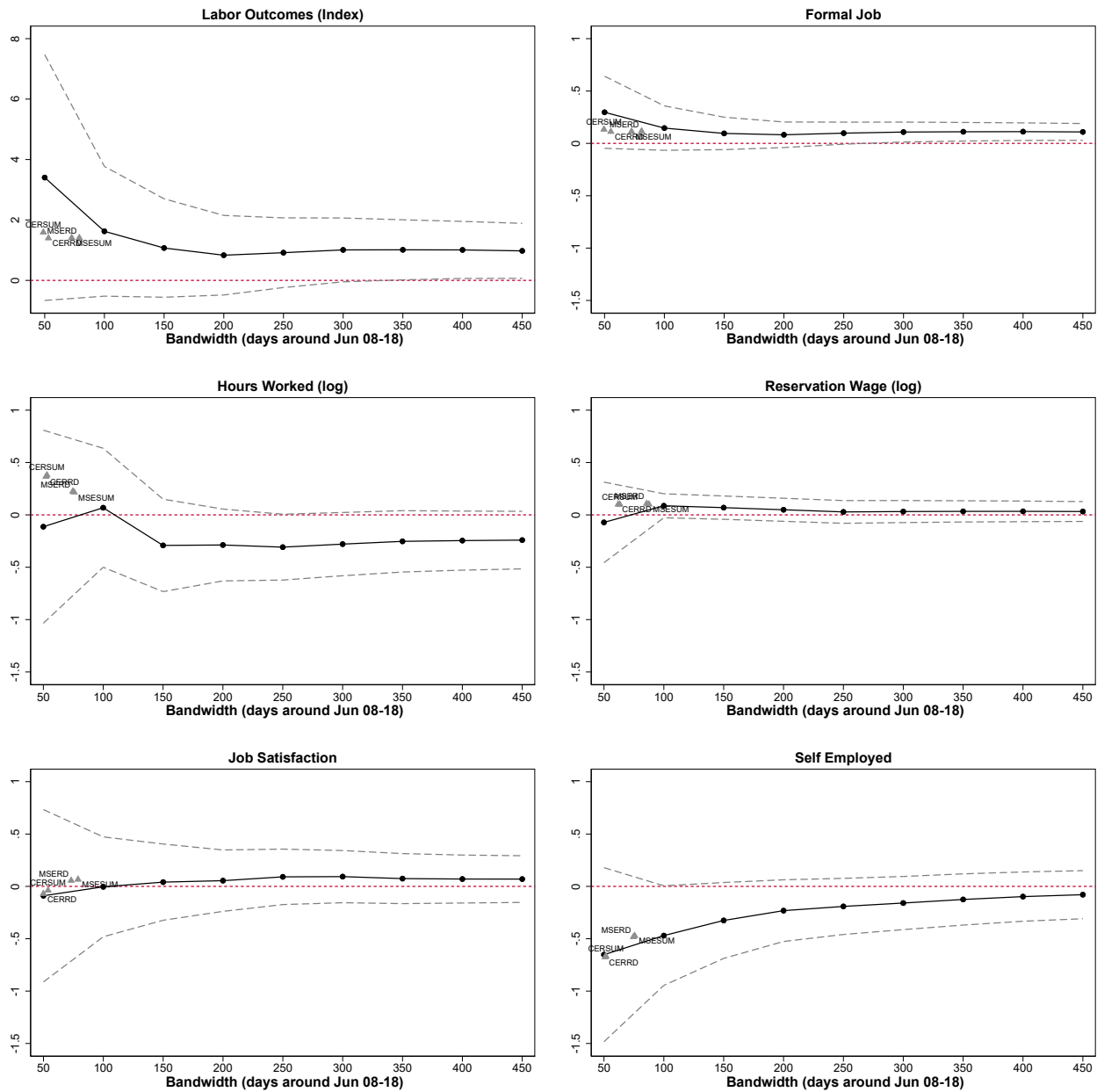
Notes: Robust bias-corrected point estimators and confidence intervals for different bandwidths measured in days around June 8, 2018. In black, manually inputed ad hoc bandwidths with a frequency of 20 days. In gray, optimal bandwidths according to different methodologies: (i) mean squared error (MSE), (ii) MSE for the sum of regression estimates (MSESUM), (iii) coverage error rate (CER), (iv) CER for the sum of regression estimates (CERSUM). We run the same specification specified in Table 6. Confidence intervals are at the 95% significance level.

VIII Tables

Table 1. Validity of the Local Continuity Assumption – All Sample (RAMV and Non-RAMV Venezuelans)

Variables in STD.	Knew job opportunity before migrating [=1]	Ever worked [=1]	Employed at private firm [=1]	Employed with gov. [=1]	Self-employed or employer [=1]	Written contract [=1]	Gap between last job and migration (months)	**Years** of educ. before migration	HH. Ven. parents or siblings [=1]	HH. Ven. partner or spouse [=1]	HH. Ven. others [=1]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Robust	-0.322	0.098	-0.051	0.285	-0.189	-0.025	-0.122	0.456	-0.555***	0.135	0.140
	(0.163)	(0.153)	(0.182)	(0.168)	(0.198)	(0.165)	(0.135)	(0.180)	(0.148)	(0.152)	(0.156)
q-values	[0.486]	[1.00]	[1.00]	[0.686]	[1.00]	[1.00]	[1.00]	[0.145]	[0.001]	[1.00]	[1.00]
Obs. left	483	597	465	480	427	604	489	436	536	620	561
Obs. right	912	1254	939	1017	835	1289	1090	852	1134	1308	1245
Observations	4,177	4,177	3,895	3,895	3,895	3,895	3,872	4,177	4,177	4,177	4,177

Variables in STD.	Migrated for health reasons [=1]	Friends/ family in Col. [=1]	Had smartphone [=1]	Owner of dwelling in Venezuela [=1]	Electricity in Venezuela [=1]	Running water in Venezuela [=1]	Sewage in Venezuela [=1]	Female [=1]	Age (years)	Number of children	Time in Colombia
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Robust	-0.107	0.044	0.156	-0.191	-0.072	0.080	0.007	-0.034	-0.105	-0.182	-0.079
	(0.256)	(0.164)	(0.165)	(0.215)	(0.045)	(0.177)	(0.243)	(0.190)	(0.180)	(0.139)	(0.093)
q-values	[1.00]	[1.00]	[1.00]	[1.00]	[0.686]	[1.00]	[1.00]	[1.00]	[1.00]	[1.00]	[1.00]
Obs. left	352	423	533	436	277	413	409	494	422	620	408
Obs. right	606	803	1123	852	506	781	763	940	805	1308	783
Observations	4,177	4,177	4,177	4,177	4,177	4,177	4,177	4,177	4,173	4,177	4,050

Notes: The table depicts the sharp RDD model results of pre-migration and pre-RAMV controls used as outcome variables. These variables correspond to all the controls described in equation 1 and specified in our preanalysis plan.

Table 2. Descriptive Statistics

	RAMV	Non-RAMV	Mean diff. P-value	Bonferroni P-value	Observations
	(1)	(2)	(3)	(4)	(5)
A. Socioeconomic Well-being					
Well-being (Index)	0.553	-0.023	0.00	0.00	3,651
	(1.192)	(0.989)			
Consumption per Capita (log)	1.615	1.362	0.00	0.00	3,651
	(0.558)	(0.469)			
Labor Income (log)	0.484	0.347	0.00	0.00	1,814
	(0.257)	(0.210)			
Employed	0.636	0.557	0.00	0.00	3,438
	(0.481)	(0.497)			
C. Rights and Services					
Rights and Services (Index)	3.458	-0.006	0.00	0.00	3,651
	(3.515)	(0.987)			
SISBEN Access	0.506	0.021	0.00	0.00	3,633
	(0.500)	(0.144)			
Subsidized Healthcare	0.330	0.014	0.00	0.00	3,603
	(0.470)	(0.118)			
Financial Products	0.240	0.030	0.00	0.00	3,644
	(0.427)	(0.171)			
Transfers from Government	0.142	0.067	0.00	0.00	3,649
	(0.350)	(0.250)			
D. Labor Outcomes					
Labor Outcomes (Index)	1.204	-0.010	0.00	0.00	2,923
	(3.362)	(0.952)			
Formal Job	0.107	0.001	0.00	0.00	2,258
	(0.309)	(0.030)			
Hours Worked (log)	3.905	3.939	0.29	1.00	1,227
	(0.534)	(0.570)			
Reservation Wage (log)	0.621	0.560	0.00	0.00	665
	(0.132)	(0.134)			
Job Satisfaction	0.445	0.321	0.00	0.00	2,045
	(0.497)	(0.467)			
Self Employed	0.315	0.432	0.00	0.00	2,031
	(0.465)	(0.496)			

Table 3. Descriptive Statistics: Controls

| | RAMV | Non-RAMV | Mean diff. | |
| | | | P-value | Bonferroni P-value |
	(1)	(2)	(3)	(4)
A. Demographics				
Female [=1]	0.504	0.588	0.000	0.000
	(0.500)	(0.492)		
Age (years)	33.980	30.026	0.000	0.000
	(10.252)	(11.546)		
Number of Venezuelan children	1.460	1.659	0.000	0.000
	(1.497)	(1.489)		
Years of education before migration	13.513	12.908	0.000	0.000
	(2.732)	(2.936)		
Migrated for health reasons	0.109	0.096	0.218	1.000
	(0.312)	(0.295)		
Time in Colombia (months)	27.506	20.078	0.000	0.000
	(10.949)	(8.873)		
Friends or family in Colombia before migration	0.702	0.750	0.001	0.022
	(0.457)	(0.433)		
B. Employment in Venezuela				
Ever worked in Venezuela [=1]	0.983	0.973	0.035	0.770
	(0.129)	(0.163)		
Employed at private firm in Venezuela [=1]	0.610	0.584	0.126	1.000
	(0.488)	(0.493)		
Employed with Government in Venezuela [=1]	0.150	0.154	0.707	1.000
	(0.357)	(0.361)		
Self-employed or employee in Venezuela [=1]	0.188	0.172	0.208	1.000
	(0.391)	(0.377)		
Had a written contract in Venezuela [=1]	0.519	0.414	0.000	0.000
	(0.500)	(0.493)		
Knew of job opportunity before migrating [=1]	0.343	0.346	0.867	1.000
	(0.475)	(0.476)		
Gap between last job and migration (months)	1.053	0.739	0.018	0.396
	(4.397)	(3.321)		
C. Housing Characteristics in Venezuela				
Had smartphone in Venezuela [=1]	0.647	0.505	0.000	0.000
	(0.478)	(0.500)		
Had a dwelling in Venezuela [=1]	0.865	0.864	0.926	1.000
	(0.341)	(0.342)		
Had electricity in Venezuela [=1]	0.994	0.994	0.766	1.000
	(0.080)	(0.075)		
Had running water in Venezuela [=1]	0.876	0.854	0.054	1.000
	(0.330)	(0.353)		
Had sewage in Venezuela [=1]	0.937	0.929	0.303	1.000
	(0.242)	(0.257)		
Lived in Venezuela with parents or siblings [=1]	0.421	0.465	0.008	0.176
	(0.494)	(0.499)		
Lived in Venezuela with partner or spouse [=1]	0.586	0.527	0.000	0.000
	(0.493)	(0.499)		
Observations	1,709	1,939	3,648	

Notes: The table reports the descriptive statistics of the controls included in all regressions.

Table 4. Impacts of PEP Migratory Status on Socioeconomic Well-being

	Well-being (Index)	Consumption per Capita (log)	Labor Income (log)	Employed
	(1)	(2)	(3)	(4)
1[PEP$_i$ = 1]	1.284**	0.481**	0.221**	0.261*
	(0.473)	(0.181)	(0.107)	(0.248)
q-values	[0.017]	[0.017]	[0.026]	[0.080]
Obs. left	415	476	255	401
Obs. right	735	1,036	569	710
Observations	3,424	3,801	1,819	3,424
Mean values (Non-RAMV refugees)	0.000	1.373	0.351	0.561
Outcome Level	Individual	Household	Individual	Individual

Notes: Dependent variables: (i) Well-being (Index) is constructed using the outcome variables of columns (ii) to (iv) using the methodology of Kling et al. (2007); (ii) Annual consumption (log) is the logarithm of annual consumption per capita in million COP; (iii) Labor Income (log) is the logarithm of the monthly labor income that includes wage, extra pay, and revenue from independent work in million COP; and (iv) Employed is a dummy [=1] if reported as employed and has a wage (includes independents and family workers). All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table 5. Impacts of PEP Migratory Status on Rights and Services

	Rights and Services (Index)	SISBEN Access	Subsidized Healthcare	Financial Products	Transfers from Government
	(1)	(2)	(3)	(4)	(5)
$1[PEP_i = 1]$	4.424***	0.567***	0.267**	0.444***	0.221**
	(0.917)	(0.127)	(0.118)	(0.110)	(0.097)
q-values	[0.001]	[0.001]	[0.010]	[0.001]	[0.010]
Obs. left	363	467	429	466	539
Obs. right	655	990	764	992	1,169
Observations	3,424	3,781	3,375	3,795	3,799
Mean values (Non-RAMV refugees)	0.000	0.023	0.015	0.030	0.065
Outcome Level	Individual	Household	Individual	Household	Household

Notes: Dependent variables: (i) Rights and Services (Index) is constructed using the outcome variables of columns (ii) to (vi) using the methodology of Kling et al. (2007): (ii) SISBEN Access is a dummy [=1] if the respondent is enrolled in the vulnerability assessment system; (iii) Subsidized Healthcare is a dummy [=1] if the respondent benefits from public healthcare; (iv) Financial Products is a dummy [=1] if the respondent has a savings account or other financial or banking products; (v) Transfers from Government is a dummy [=1] if the respondent received transfers from any official social assistance program. All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table 6. Impacts of PEP Migratory Status on Labor Outcomes

	Labor Outcomes (Index)	Formal Job	Hours Worked (log)	Reservation Wage (log)	Job Satisfaction	Self Employed
	(1)	(2)	(3)	(4)	(5)	(6)
$1[PEP_i = 1]$	1.328	0.108	-0.090	0.096	0.119	-0.465
	(1.209)	(0.107)	(0.308)	(0.071)	(0.248)	(0.262)
q-values	[0.839]	[0.864]	[0.839]	[0.864]	[0.839]	[0.839]
Obs. left	407	267	155	123	255	243
Obs. right	842	635	340	207	574	526
Observations	2,709	2,048	1,232	661	2,048	2,034
Mean values (Non-RAMV refugees)	0.000	0.001	3.937	0.564	0.324	0.430
Outcome Level	Individual	Individual	Individual	Individual	Individual	Individual

Notes: Dependent variables: (i) Labor Outcomes (Index) is constructed using the outcome variables of columns (ii) to (vi) using the methodology of Kling et al. (2007): (ii) Formal Job is an indicator variable [=1] if the refugee is employed, reports a pension fund, and has a written contract; (iii) Hours worked (log) is the logarithm of weekly hours worked; (iv) Reservation Wage is the logarithm; (v) Job Satisfaction is an indicator [=1] if the respondent wants to change the job they currently have; and (vi) Self-Employed is an indicator variable [=1] if main occupation is independent or self-employed. All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Appendix for Online Publication

A   Benefits of the PEP Program

Table A.1. Benefits of PEP-RAMV

	All Refugees	Refugees with RAMV	Refugees with PEP
Education	Nursery, primary and secondary	Nursery, primary and secondary	Nursery, primary and secondary
	Food and school bus service	Food and school bus service	Food and school bus service
	No	No	**Promotion across education levels**
	No	No	**Degree recognition**
SISBEN*	No	No	**Yes**
Health	Emergency care	Emergency care	Emergency care
	Public health programs	Public health programs	Public health programs
	Vaccines	Vaccines	Vaccines
	Prenatal care	Prenatal care	Prenatal care
	Prevention campaigns	Prevention campaigns	Prevention campaigns
	No	No	**Access to subsidized regime**
Childhood Services (ICBF**)	No	No	**Childcare**
	No	No	**Early childhood services**
Labor Market	No	No	**Possibility to be (formally) employed**
Financial Services	No	No	**Access to the banking sector**

Notes: *SISBEN: score used to target social safety net programs in Colombia and ** ICBF: Colombian Family Welfare Institute, which is in charge of all early childhood programs and services.

B Migrants Referred by RAMV Migrants and by Local Organizations

Table B.1. Baseline Characteristics for Migrants

	RAMV	Non-RAMV Referrals	Non-RAMV Organizations	Mean Difference (Bonferroni P-value)		
				(1)-(2)	(1)-(3)	(2)-(3)
	(1)	(2)	(3)	(4)	(5)	(6)
Knew of job opportunity before migrating [=1]	0.343	0.359	0.334	1.00	1.00	1.00
	(0.475)	(0.480)	(0.472)			
Migrated for health reasons [=1]	0.109	0.093	0.099	1.00	1.00	1.00
	(0.312)	(0.291)	(0.299)			
Friends or family in Colombia [=1]	0.702	0.755	0.747	0.075	0.165	1.00
	(0.457)	(0.431)	(0.435)			
Ever worked in Venezuela [=1]	0.983	0.966	0.978	0.090	1.00	0.120
	(0.129)	(0.181)	(0.146)			
Employed at private firm in Venezuela [=1]	0.610	0.598	0.573	1.00	0.915	1.00
	(0.488)	(0.491)	(0.495)			
Employed with Government in Venezuela [=1]	0.150	0.137	0.169	1.00	1.00	0.795
	(0.357)	(0.344)	(0.375)			
Self-employed or employee in Venezuela [=1]	0.188	0.169	0.173	1.00	1.00	1.00
	(0.391)	(0.375)	(0.379)			
Lived in Venezuela with parents or siblings [=1]	0.421	0.483	0.449	0.030	1.00	1.00
	(0.494)	(0.500)	(0.498)			
Lived in Venezuela with partner or spouse [=1]	0.586	0.515	0.537	0.015	0.165	1.00
	(0.493)	(0.500)	(0.499)			
Had a dwelling in Venezuela [=1]	0.865	0.845	0.881	1.00	1.00	0.870
	(0.341)	(0.362)	(0.324)			
Had electricity in Venezuela [=1]	0.994	0.992	0.996	1.00	1.00	0.225
	(0.080)	(0.088)	(0.062)			
Had running water in Venezuela [=1]	0.876	0.857	0.852	1.00	1.00	1.00
	(0.330)	(0.350)	(0.356)			
Had sewage in Venezuela [=1]	0.937	0.925	0.932	1.00	1.00	1.00
	(0.242)	(0.264)	(0.251)			
Gap between last job and migration (months)	1.053	0.775	0.709	1.00	0.540	1.00
	(4.397)	(3.301)	(3.340)			
Time in Colombia (months)	27.506	20.799	19.471	0.000	0.000	0.015
	(10.949)	(9.441)	(8.322)			
Observations	1,709	888	1,051	2,597	2,760	2,108

Notes: The table reports data on migrants' demographic variables while in Venezuela or in Colombia before the program rollout. It takes into account all the migrants surveyed, which corresponds to 3,900 refugees in 2,232 households. It also presents the mean difference between pairs of three groups of migrants: (i) those in the RAMV, (ii) those not in the RAMV but referred by RAMV migrants (Non-RAMV Referrals), and (iii) those not in the RAMV who were referred by local organizations (Non-RAMV Organizations). Columns (iv)–(vi) report the Bonferroni p-values corrected for multiple hypothesis testing.

Table B.2. Validity of the Local Continuity Assumption – Non-RAMV Referrals

Variables in STD.	Knew job opportunity before migrating [=1]	Ever worked [=1]	Employed at private firm [=1]	Employed with gov. [=1]	Self-employed or employer [=1]	Written contract [=1]	Gap between last job and migration (months)	Years of educ. before migration	HH. Ven. parents or siblings [=1]	HH. Ven. partner or spouse [=1]	HH. Ven. others [=1]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$1[PEP_i = 1]$	-0.124	0.380	0.169	0.444	-0.219	0.458	-0.168	0.959**	-0.560**	0.045	0.229
	(0.250)	(0.308)	(0.275)	(0.209)	(0.268)	(0.256)	(0.218)	(0.294)	(0.196)	(0.241)	(0.248)
q-values	[1.00]	[0.686]	[1.00]	[0.193]	[1.00]	[0.264]	[1.00]	[0.012]	[0.028]	[1.00]	[1.00]
Obs. left	190	213	179	212	199	200	194	176	182	190	222
Obs. right	530	600	512	753	580	587	568	436	455	530	724
Observations	2,589	2,589	2,483	2,483	2,483	2,483	2,477	2,589	2,589	2,589	2,589

Variables in STD.	Migrated for health reasons [=1]	Friends/family in Col. [=1]	Had smartphone [=1]	Owner of dwelling in Venezuela [=1]	Electricity in Venezuela [=1]	Running water in Venezuela [=1]	Sewage in Venezuela [=1]	Female [=1]	Age (years)	Number of children	Time in Colombia
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
$1[PEP_i = 1]$	-0.138	0.080	0.632**	-0.045	-0.401	0.125	0.249	0.197	0.025	-0.331	0.015
	(0.316)	(0.233)	(0.189)	(0.393)	(0.204)	(0.252)	(0.387)	(0.233)	(0.210)	(0.190)	(0.114)
q-values	[1.00]	[1.00]	[0.012]	[1.00]	[0.231]	[1.00]	[1.00]	[1.00]	[1.00]	[0.264]	[1.00]
Obs. left	204	208	214	168	144	204	145	269	221	219	185
Obs. right	574	588	617	405	352	574	373	881	687	679	509
Observations	2,589	2,589	2,589	2,589	2,589	2,589	2,589	2,589	2,586	2,589	2,543

Notes: The table depicts the sharp RDD model results of pre-migration and pre-RAMV controls used as outcome variables. These variables correspond to all the controls specified in our preanalysis plan.

Table B.3. Validity of the Local Continuity Assumption – Non-RAMV Organization Databases

Variables in STD.	Knew job opportunity before migrating [=1]	Ever worked [=1]	Employed at private firm [=1]	Employed with gov. [=1]	Self-employed or employer [=1]	Written contract [=1]	Gap between last job and migration (months)	Years of educ. before migration	HH. Ven. parents or siblings [=1]	HH. Ven. partner or spouse [=1]	HH. Ven. others [=1]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$1[PEP_i = 1]$	-0.627	-0.080	0.538	0.087	-0.524	0.397	-0.053	-0.034	-0.881	0.963**	-0.134
	(0.259)	(0.047)	(0.314)	(0.245)	(0.384)	(0.292)	(0.176)	(0.212)	(0.376)	(0.314)	(0.217)
q-values	[0.154]	[0.351]	[0.351]	[0.769]	[0.466]	[0.466]	[0.769]	[0.769]	[0.154]	[0.047]	[0.769]
Obs. left	261	192	192	308	186	192	197	201	167	167	261
Obs. right	655	426	474	879	436	466	533	430	387	399	661
Observations	2,745	2,745	2,606	2,606	2,606	2,606	2,600	2,745	2,745	2,745	2,745

Variables in STD.	Migrated for health reasons [=1]	Friends/ family in Col. [=1]	Had smartphone [=1]	Owner of dwelling in Venezuela [=1]	Electricity in Venezuela [=1]	Running water in Venezuela [=1]	Sewage in Venezuela [=1]	Female [=1]	Age (years)	Number of children	Time in Colombia
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
$1[PEP_i = 1]$	-0.059	0.303	-0.148	-0.443	0.056	0.252	-0.072	0.128	-0.322	-0.117	-0.170
	(0.304)	(0.229)	(0.257)	(0.270)	(0.028)	(0.268)	(0.241)	(0.270)	(0.272)	(0.240)	(0.142)
q-values	[0.769]	[0.466]	[0.769]	[0.351]	[0.257]	[0.668]	[0.769]	[0.769]	[0.466]	[0.769]	[0.466]
Obs. left	190	310	280	232	359	222	211	261	220	257	203
Obs. right	422	877	744	610	999	585	540	655	559	639	480
Observations	2,745	2,745	2,745	2,745	2,745	2,745	2,745	2,745	2,744	2,745	2,701

Notes: The table depicts the sharp RDD model results of pre-migration and pre-RAMV controls used as outcome variables. These variables correspond to all the controls specified in our preanalysis plan.

C Is the Date of Arrival in Colombia Related to Baseline Socioeconomic Characteristics?

Table C.1. Socioeconomic Characteristics by Date of Arrival

	Normalized Date of Arrival (Months)
	(1)
A. Labor Outcomes	
Ever worked in Venezuela [=1]	3.578
	(4.964)
Employed at private firm in Venezuela [=1]	-5.021*
	(2.779)
Employed with Government in Venezuela [=1]	-2.985
	(3.167)
Self-employed or employee in Venezuela [=1]	-5.280*
	(2.981)
Had a written contract in Venezuela [=1]	0.397
	(1.382)
B. Education	
Years of education before migration	-0.044
	(0.217)
C. Assets	
Had smartphone in Venezuela [=1]	-0.867
	(1.239)
Had a dwelling in Venezuela [=1]	-4.566***
	(1.754)
Had electricity in Venezuela [=1]	4.178
	(7.667)
Had running water in Venezuela [=1]	-2.523
	(1.917)
Had sewage in Venezuela [=1]	-0.023
	(2.665)
R-squared	0.004
Observations	3,416
Join F-Test	1.34

Notes: Dependent Variable: Normalized date of arrival is the date of arrival in Colombia reported by each migrant, normalized to zero with the first date of arrival in Colombia reported. Standard errors are reported in parentheses. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Figure C.1. Socioeconomic Index by Date of Arrival
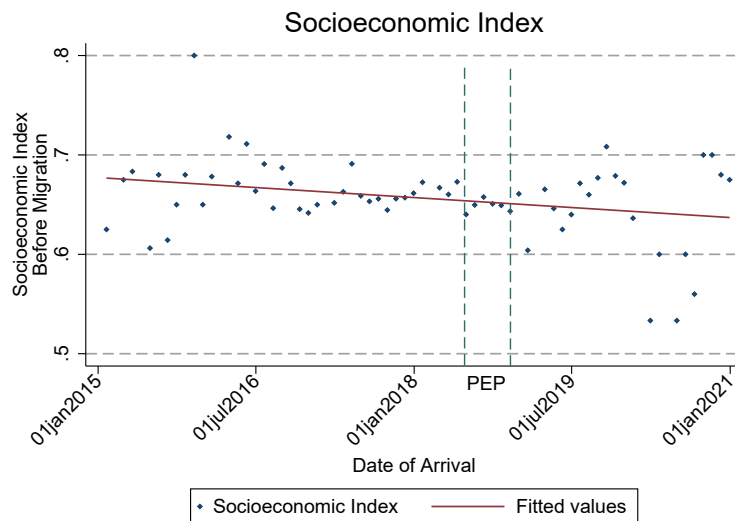
D VenRePS Survey

The survey was administered in two steps to ensure targeting of the forced migrants who fulfilled the characteristics laid out in the sampling frame, and to define (with respondents) the best time to call and administer the questionnaire.

First, forced migrants received a text that introduced the survey team from IPA, described the broad objectives of the research project and the monetary incentive for participation, and mentioned that the team would call them in the next few days to conduct the survey. The text also included a link to the project's website that had more detailed information.

A few days later, the survey was administered by phone.[16] First, a short screening module was administered to verify the respondent's eligibility and to obtain informed consent. RAMV migrants were asked if they or other family members had registered in the RAMV census and whether they had PEP. Non-RAMV migrants were asked for their migration date because the targeted migrants had arrived in Colombia between January 2017 and December 2018, were older than 18 years, did not have a different PEP, and did not have a valid passport.[17]

Following the screening, the survey was administered with a focus on the family head, partner, or another adult member of the family. The original questionnaire was adjusted and trimmed because of the challenges posed by phone surveys. We decided not to collect data for the entire household roster, and collected the labor module only for the respondent and one other member of the nuclear family. [18]

In total, we collected information from 3,455 Venezuelan families living in Colombia. This sample included families with some members who were Colombian, either from birth or

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[16]The call was rescheduled when the respondent was not available. When ineligible respondents were called, the team included them in a raffle for 50,000 COP (approximately $USD 18).

[17]As discussed above, PEP was also awarded in previous waves to forced migrants who entered Colombia using a passport and therefore had regular migratory status. By asking if respondents had a Venezuelan passport, the team ensured the exclusion of other PEP holders who were typically wealthier.

[18]The nuclear family includes the household head, partner, children, parents, parents-in-law, daughters-in-law, and sons-in-law.

because of nationalization.[19] To guarantee that the results were not confounded by access to the labor market and other services by these Colombians, the sample was stratified to exclude families with a Colombian citizen 10 years of age or older, and with a member who held PEP from a different wave.

The structure of the survey is explained below:

1. **Screening Module:** the screening was designed to be done in a first call to determine the family's eligibility for the survey. The screening and the survey were to be answered by any adult in the nuclear family of the person who was originally contacted. The person who answered the survey became the main respondent and would be the only one to provide information for themselves. In turn, they had to answer the survey, from a third-person perspective, for all other family members.

   In the screening, the main respondent was asked for their age, place of birth, Venezuelan ID number, current city of residence, whether they had a Venezuelan passport, and if they had registered in the RAMV census in 2018. If the contact came from the sampling frame of irregular migrants, they were asked if they had PEP and for the date of their arrival in Colombia. For the census sample, this information was available. Only families whose main respondent arrived in Colombia from January 2017 to December 2018 were eligible.

2. **Household Roster Module:** the main respondent had to answer sociodemographic, educational, and PEP-related questions for every member of the nuclear family:

   - *Sociodemographic*: age, relation to household head, citizenship (Colombian and/or Venezuelan) and proof of citizenship, gender, civil status, date of arrival in Colombia, date when they became part of the family, and cities of birth and residence in Venezuela.

   - *Education*: maximum level of education before migration, current level of education and enrollment, degree validation in Colombia, reasons why their degree is invalid, and whether they have lost a job because the degree is invalid in Colombia.

   - *PEP*: whether they have PEP, date of PEP issue, reason why they do not have PEP, perceived benefits of having PEP, renewal information on PEP (the PEP had to be renewed every two years), and whether they registered in the RAMV census. They were also asked about last week's and last month's income, healthcare regime, and expected length of stay in Colombia.

3. **Labor Module:** the main respondent and a second household member of working age

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[19]In the 1980s and 1990s, large numbers of Colombians migrated to Venezuela to escape the socioeconomic crisis, conflict, and drug-related violence. Many of them have since returned to Colombia. Although they too could be considered forced migrants, they still hold Colombian nationality and thus can access the labor market and public services without PEP.

had to respond to the labor module:

- *Current employment*: questions to classify workers as employed, independent workers, unemployed, or inactive according to the previous week's main activity.

- *Labor history in Colombia*: questions about the first job in Colombia, number of jobs they have had, if they have been unemployed, the duration of the longest period of unemployment, and whether they knew about opportunities for employment before migrating.

- *Labor history in Venezuela*: questions about the best job they had in Venezuela in order to capture the full measure of the skill downgrade: employment sector, contract, relevance of work with previous training or education, and reason for leaving that job. We also asked about the employment sector of the job immediately before migration and about the gap between the last job and migration.

4. **Household Module:** Only the main respondent had to provide the information below:

- *Migration:* time spent in the current municipality of residence, household composition in Venezuela, reasons why partner/spouse/children moved at a different time or stayed in Venezuela, whether they had friends or family in Colombia before migrating, if these people helped upon arrival, and how they helped. We also asked them if they knew of people who had returned to Venezuela and why they did so.

- *Health and healthcare*: general health, children's immunization schedule, fertility and pregnancy-related questions, mental health (the EQ-5D-3L, a mental health scale that has been validated for Colombia, was collected), and Covid-19 related questions.

- *Food insecurity*: if the family had ever been without food in Colombia, how many days of the previous week they had protein in at least one meal, and with what frequency a family member had to skip a meal before migrating, before the Covid-19 crisis began, and in the previous month.

- *Integration into society:* how much they felt part of Colombian society and their neighborhood, if they had Colombian friends, if they were part of a migrants' organization, and if they had ever felt discriminated against, in what context, and how frequently. We also asked if they had access to official services such as SISBEN (the vulnerability assessment system), cash transfer programs, and if they had ever filed a police report, for what reason, and if not, what kept them from doing so.

- *Prosocial behavior:* how much they agreed or disagreed with the following statements: (i) you can trust Colombians/Venezuelans, (ii) you can count on Colombians/Venezuelans even if you don't know them, (iii) Colombians/Venezuelans want to help me, (iv) you can trust the Colombian government, and (v) the Colombian government wants to help me. Half the sample was asked for their opinions on Colombians first and the other half about Venezuelans first to see if the order

affected their answers.

- *Housing and connectivity:* characteristics of the dwelling in Colombia and in Venezuela, and if they had access to public services such as energy, water, and sewage. They were also asked to report how many people and how many families lived in the dwelling besides the nuclear family recorded in the household roster. Related to connectivity, they were asked about possession of a smartphone and type of data plan in Colombia and in Venezuela, access to internet in Colombia, and the most used social media platforms.

- *Consumption and remittances:* how much the household spent on different food and services categories the last time they bought them, the total expenditure, and the expenditure on food for the family.

E Reason for Not Registering in RAMV

Table E.1. Reason for Not Registering in RAMV

	Non-RAMV Referrals (1)	Non-RAMV Organizations (2)
Did not know about RAMV	51.23%	51.71%
Was not in Colombia	19.51%	23.43%
No proof of Ven. nationality	11.16%	9.71%
Was working	8.23%	5.24%
Too expensive or complicated	5.99%	5.71%
Fear of deportation	2.59%	2.38%
Other	1.29%	1.81%

Table E.2. Reason for Not Having PEP

	Non-RAMV Referrals (1)	Non-RAMV Organizations (2)	RAMV NO PEP (3)
Lack of information or misinformation	58%	58.71%	29.93%
Did not register in the RAMV census	11.04%	11.23%	0.00%
Was not in Colombia	10.70%	12.75%	2.19%
RAMV registration got lost	6.19%	7.71%	23.36%
Did not plan to stay in Colombia	5.18%	3.43%	0.00%
Did not have access to Internet	1.80%	1.52%	5.84%
Did not need it	0.45%	0.57%	0.73%
Other	7.09%	4.38%	39.42%

F   Cleaning Venezuelans with PEP after the RAMV closed

Figure F.1. Discontinuity in the Probability of Treatment on June 8, 2018

(a) Panel A: Probability of treatment by week of arrival
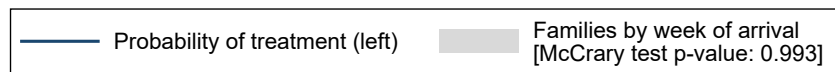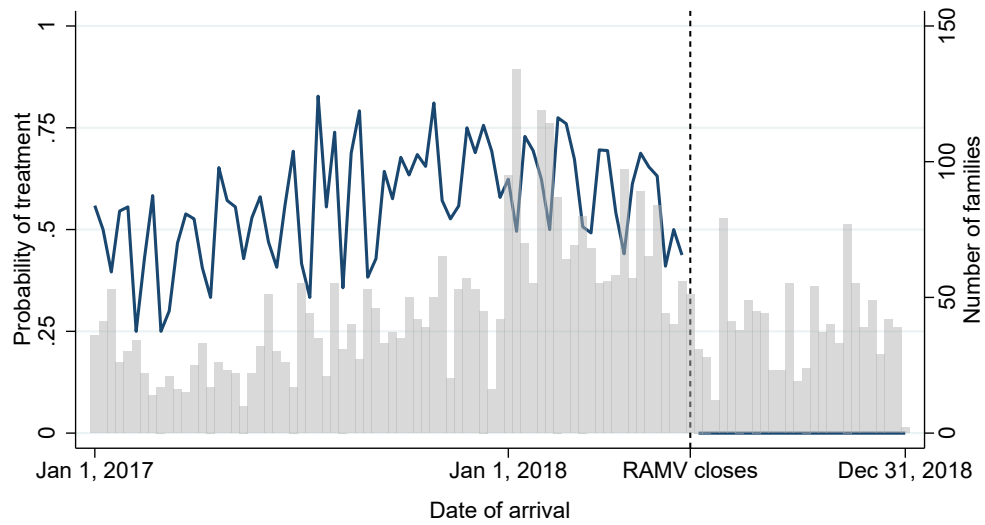
* Observations grouped by week of arrival

Table F.1. Impacts of PEP on Socioeconomic Well-being

	Well-being (Index)	Consumption per Capita (log)	Labor Income (log)	Employed
	(1)	(2)	(3)	(4)
1[PEPi = 1]	1.738***	0.469***	0.233***	0.178
	(0.557)	(0.153)	(0.090)	(0.213)
q-values	[0.005]	[0.005]	[0.007]	[0.113]
Obs. left	338	538	252	425
Obs. right	612	1,210	594	832
Observations	3,385	3,762	1,791	3,386
Mean values (Non-RAMV refugees)	0.000	1.373	0.351	0.561
Outcome Level	Individual	Household	Individual	Individual

Notes: Dependent variables: (i) Well-being (Index) is constructed using the outcome variables of columns (ii)–(iv) using the methodology of Kling et al. (2007); (ii) Annual consumption (log) is the logarithm of annual consumption per capita in million COP; (iii) Labor Income (log) is the logarithm of the monthly labor income that includes wage, extra pay, and revenue from independent work in million COP; (iv) Employed is a dummy [=1] if reported as employed, and has a wage (includes independents and family workers). All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table F.2. Impacts of PEP on Rights and Services

	Rights and Services (Index)	SISBEN Access	Subsidized Healthcare	Financial Products	Transfers from Government
	(1)	(2)	(3)	(4)	(5)
1[PEP$_i$ = 1]	3.968***	0.481***	0.238***	0.435***	0.129**
	(0.574)	(0.099)	(0.081)	(0.086)	(0.082)
q-values	[0.001]	[0.001]	[0.002]	[0.001]	[0.024]
Obs. left	527	573	453	537	534
Obs. right	1067	1,261	936	1,210	1,200
Observations	3,385	3,742	3,338	3,756	3,760
Mean values (Non-RAMV refugees)	0.000	0.023	0.015	0.030	0.065
Outcome Level	Individual	Household	Individual	Household	Household

Notes: Dependent variables: (i) Rights and Services (Index) is constructed using the outcome variables of columns (ii)–(vi) using the methodology of Kling et al. (2007); (ii) SISBEN Access is a dummy [=1] if the respondent is enrolled in the vulnerability assessment system; (iii) Subsidized Healthcare is a dummy [=1] if the respondent benefits from public healthcare; (iv) Financial Products is a dummy [=1] if the respondent has a savings account or other financial or banking products; (iv) Transfers from Government is a dummy [=1] if the respondent receives transfers from any official social assistance program. All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table F.3. Impacts of PEP on Labor Outcomes

	Labor Outcomes (Index) (1)	Formal Job (2)	Hours Worked (log) (3)	Reservation Wage (log) (4)	Job Satisfaction (5)	Self Employed (6)
$1[PEP_i = 1]$	1.753	0.118	0.060	-0.081	0.096	-0.514
	(0.957)	(0.077)	(0.325)	(0.152)	(0.258)	(0.230)
q-values	[0.202]	[0.746]	[0.744]	[0.744]	[0.185]	[0.252]
Obs. left	335	280	102	78	194	265
Obs. right	676	662	233	85	416	629
Observations	2,672	2,019	1,210	654	2,019	2,006
Mean values (Non-RAMV refugees)	0.000	0.001	3.937	0.564	0.324	0.430
Outcome Level	Individual	Individual	Individual	Individual	Individual	Individual

Notes: Dependent variables: (i) Labor Outcomes (Index) is constructed using the outcome variables of columns (ii)–(vi) using the methodology of Kling et al. (2007); (ii) Formal Job is an indicator variable [=1] if the refugee is employed, reports a pension fund, and has a job with a written contract; (iii) Hours worked (log) is the logarithm of weekly hours worked; (iv) Reservation Wage is the logarithm; (v) Job Satisfaction is an indicator [=1] if the respondent wants to change the job they currently have; and (vi) Self-Employed is an indicator variable [=1] if main occupation is independent or self-employed. All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

65

G RD Plot with Fitted Local-quadratic Polynomial

Figure G.1. RD Plot with Fitted Local-quadratic Polynomial
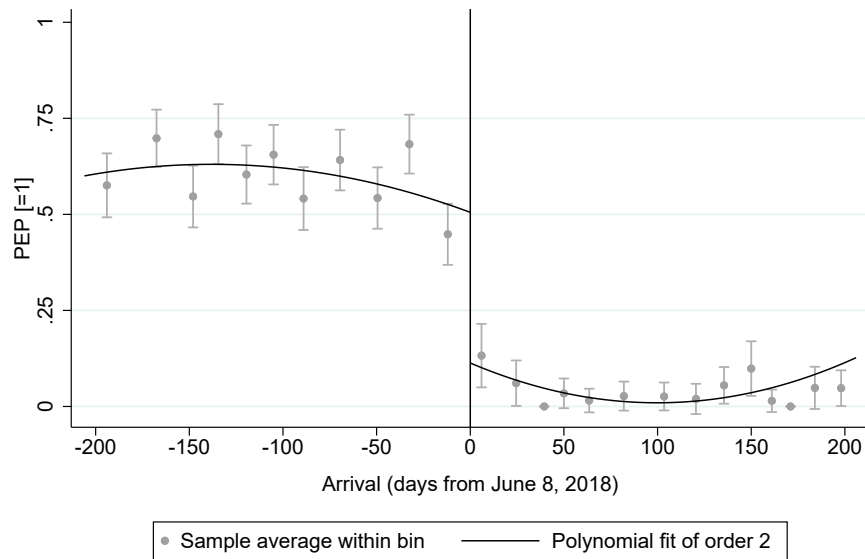
Notes: The figure illustrates the discontinuity in treatment probability 200 days around June 8, 2018, when the RAMV census closed. The bars illustrate 95% confidence intervals.

Figure G.2. Validity of the Local Continuity Assumption
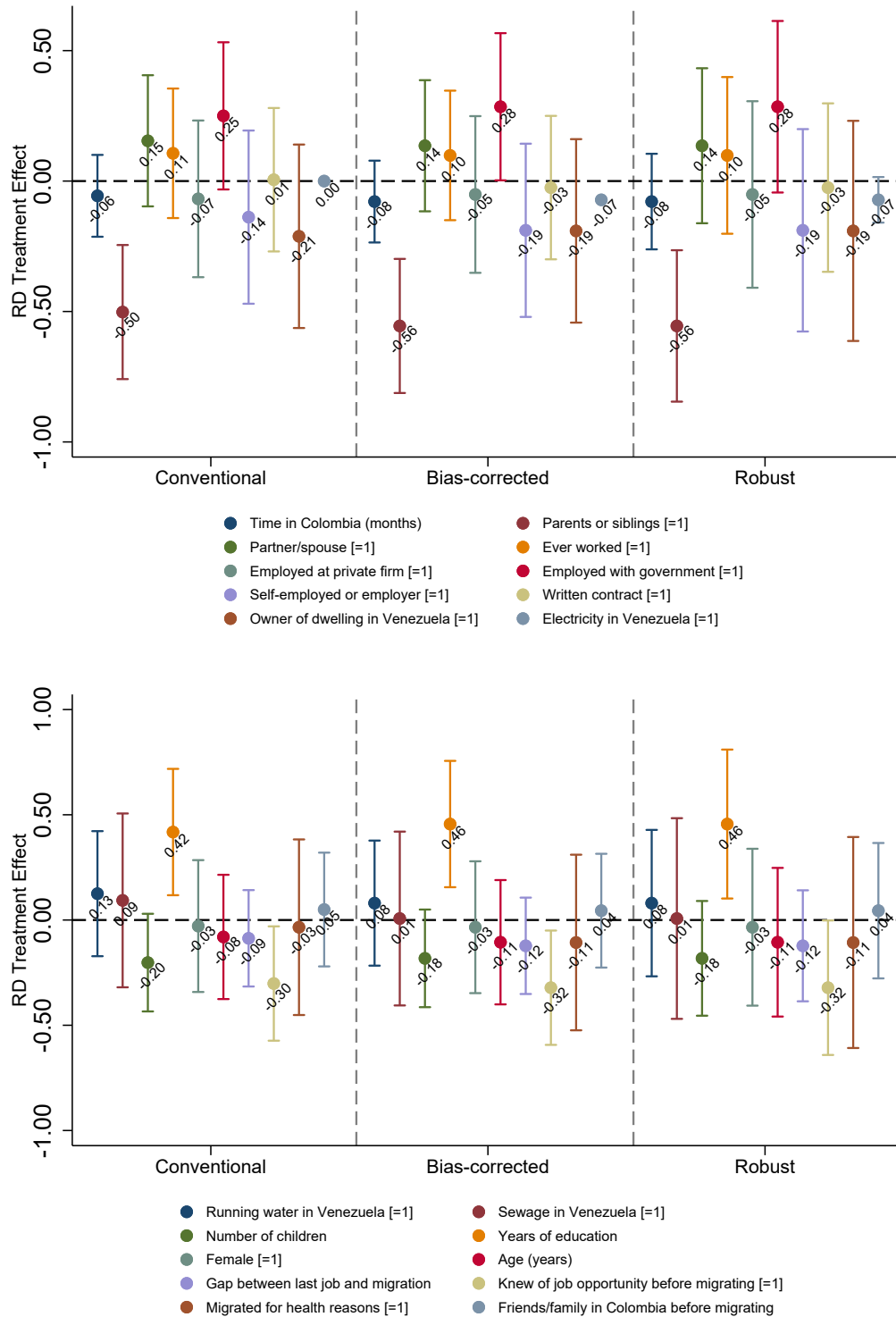
Notes: The figure depicts the sharp RDD model results using the standardized pre-migration and pre-RAMV controls as outcome variables. These variables correspond to all the controls described in Equation (2) and specified in our preanalysis plan. The estimation uses a triangular kernel and a common MSERD optimal bandwidth.

H   RD Plot with Local-linear Fitted Polynomial

Figure H.1. Socioeconomic Well-being – Fuzzy RD Plots with Local-linear Fitted Polynomial

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

Figure H.2. Rights and Services – Fuzzy RD Plots with Local-linear Fitted Polynomial

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

Figure H.3. Labor Outcomes – Fuzzy RD Plots with Local-linear Fitted Polynomial

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

I Robustness Test

Table I.1. Robustness Analysis for the Socioeconomic Well-being Index

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1[$\text{PEP}_i = 1$]	0.928***	0.830***	1.021***	0.867***	0.895***	0.905***	0.928***	0.830***	1.021***	0.867***	0.895***	0.905***
	(0.305)	(0.289)	(0.339)	(0.295)	(0.293)	(0.312)	(0.305)	(0.289)	(0.339)	(0.295)	(0.293)	(0.312)
Obs. left	445	434	411	447	434	415	445	434	411	447	434	415
Obs. right	848	788	731	1,214	848	1,108	848	788	731	1,214	848	1,108
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1[$\text{PEP}_i = 1$]	1.282***	0.899**	1.200***	1.065***	0.819**	1.035***	1.609***	1.702***	1.671***	1.335***	1.294***	1.328***
	(0.472)	(0.439)	(0.457)	(0.361)	(0.400)	(0.364)	(0.585)	(0.603)	(0.611)	(0.410)	(0.450)	(0.429)
Obs. left	415	441	419	415	445	419	415	441	419	415	445	419
Obs. right	741	836	746	1,788	1,322	1,597	741	836	746	1,788	1,322	1,597
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
1[$\text{PEP}_i = 1$]	1.523**	1.593*	1.752**	1.440***	1.274**	1.557***	1.524**	0.796	1.671***	1.415***	0.950*	0.965*
	(0.637)	(0.873)	(0.811)	(0.493)	(0.597)	(0.563)	(0.677)	(0.649)	(0.611)	(0.540)	(0.535)	(0.584)
Obs. left	458	348	367	454	348	363	458	348	419	454	348	363
Obs. right	901	576	677	1,789	1,663	1,563	901	576	746	1,789	1,663	1,563
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.2. Robustness Analysis for the Consumption Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1[$PEP_i = 1$]	0.389***	0.445***	0.459***	0.366***	0.467***	0.428***	0.389***	0.445***	0.459***	0.366***	0.467***	0.428***
	(0.129)	(0.173)	(0.158)	(0.118)	(0.152)	(0.135)	(0.129)	(0.173)	(0.158)	(0.118)	(0.152)	(0.135)
Obs. left	472	292	390	467	350	392	472	292	390	467	350	392
Obs. right	1,025	551	802	1,686	1,241	1,574	1,025	551	802	1,686	1,241	1,574
Mean values (Non-RAMV)	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1[$PEP_i = 1$]	0.481***	0.354**	0.480***	0.419***	0.455**	0.418***	0.592***	0.825***	0.650***	0.558***	0.708***	0.582***
	(0.181)	(0.178)	(0.186)	(0.154)	(0.181)	(0.158)	(0.218)	(0.289)	(0.246)	(0.175)	(0.242)	(0.184)
Obs. left	476	465	465	476	463	465	476	465	465	476	463	465
Obs. right	1,036	981	981	1,979	1,482	1,874	1,036	981	981	1,979	1,482	1,874
Mean values (Non-RAMV)	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
1[$PEP_i = 1$]	0.570**	0.758**	0.669**	0.642***	0.674***	0.646***	0.658**	0.210	0.650***	0.379*	0.276	0.418**
	(0.227)	(0.370)	(0.275)	(0.225)	(0.257)	(0.227)	(0.260)	(0.226)	(0.246)	(0.198)	(0.215)	(0.191)
Obs. left	531	360	446	380	360	375	531	360	465	380	360	375
Obs. right	1,154	657	895	1,839	1,786	2,082	1,154	657	981	1,839	1,786	2,082
Mean values (Non-RAMV)	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373	1.373
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.3. Robustness Analysis for the Labor Income Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.158**	0.237**	0.180**	0.151**	0.177**	0.162**	0.158**	0.237**	0.180**	0.151**	0.177**	0.162**
	(0.076)	(0.112)	(0.087)	(0.073)	(0.079)	(0.080)	(0.076)	(0.112)	(0.087)	(0.073)	(0.079)	(0.080)
Obs. left	216	146	180	221	145	180	216	146	180	221	145	180
Obs. right	439	275	366	591	749	549	439	275	366	591	749	549
Mean values (Non-RAMV)	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	0.221**	0.284**	0.313**	0.181*	0.225**	0.162*	0.289**	0.412**	0.430**	0.198*	0.184*	0.122
	(0.107)	(0.120)	(0.136)	(0.096)	(0.093)	(0.096)	(0.121)	(0.167)	(0.176)	(0.106)	(0.099)	(0.103)
Obs. left	255	199	180	239	199	180	255	199	180	239	199	180
Obs. right	569	404	366	860	886	939	569	404	366	860	886	939
Mean values (Non-RAMV)	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.325**	0.283*	0.330*	0.242*	0.146	0.201	0.398**	0.431*	0.430**	0.319*	0.173	0.291
	(0.154)	(0.166)	(0.172)	(0.140)	(0.124)	(0.144)	(0.192)	(0.246)	(0.176)	(0.175)	(0.161)	(0.190)
Obs. left	239	223	224	239	223	224	239	223	180	239	223	224
Obs. right	566	479	486	781	834	776	566	479	366	781	834	776
Mean values (Non-RAMV)	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.4. Robustness Analysis for the Employed Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.173	0.235	0.174	0.154	0.191	0.150	0.173	0.235	0.174	0.154	0.191	0.150
	(0.147)	(0.173)	(0.150)	(0.146)	(0.159)	(0.148)	(0.147)	(0.173)	(0.150)	(0.146)	(0.159)	(0.148)
Obs. left	470	363	458	454	365	449	470	363	458	454	365	449
Obs. right	955	655	901	1,214	1,080	1,144	955	655	901	1,214	1,080	1,144
Mean values (Non-RAMV)	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	0.261	0.081	0.243	0.192	0.083	0.158	0.293	0.294	0.339	0.297	0.214	0.305
	(0.248)	(0.212)	(0.237)	(0.187)	(0.177)	(0.186)	(0.285)	(0.285)	(0.296)	(0.206)	(0.208)	(0.206)
Obs. left	401	425	411	379	425	411	401	425	411	379	425	411
Obs. right	710	756	731	1,788	1,560	1,663	710	756	731	1,788	1,560	1,663
Mean values (Non-RAMV)	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.188	0.433	0.244	0.300	0.424	0.393	0.230	0.085	0.339	0.297	0.298	0.350
	(0.261)	(0.371)	(0.293)	(0.240)	(0.262)	(0.250)	(0.319)	(0.330)	(0.296)	(0.292)	(0.260)	(0.303)
Obs. left	557	365	474	522	365	452	557	365	411	522	365	452
Obs. right	1,080	661	968	1,560	1,739	1,563	1,080	661	731	1,560	1,739	1,563
Mean values (Non-RAMV)	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.5. Robustness Analysis for the Rights and Services Index

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[\text{PEP}_i = 1]$	4.235***	4.107***	4.287***	4.291***	3.826***	4.415***	4.235***	4.107***	4.287***	4.291***	3.826***	4.415***
	(0.561)	(0.626)	(0.614)	(0.490)	(0.502)	(0.517)	(0.561)	(0.626)	(0.614)	(0.490)	(0.502)	(0.517)
Obs. left	452	427	415	452	427	415	452	427	415	452	427	415
Obs. right	872	766	741	1,214	1,054	1,162	872	766	741	1,214	1,054	1,162
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[\text{PEP}_i = 1]$	4.424***	4.324***	4.417***	4.620***	4.429***	4.607***	4.053***	4.190***	3.897***	4.249***	3.751***	4.073***
	(0.917)	(1.089)	(0.989)	(0.555)	(0.581)	(0.583)	(0.767)	(1.013)	(0.842)	(0.561)	(0.718)	(0.597)
Obs. left	363	348	365	363	348	365	363	348	365	363	348	365
Obs. right	655	563	661	1,597	1,355	1,559	655	563	661	1,597	1,355	1,559
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[\text{PEP}_i = 1]$	4.642***	4.554***	4.692***	4.525***	4.147***	4.585***	4.359***	4.110***	3.897***	4.081***	3.715***	3.972***
	(1.132)	(1.222)	(1.212)	(0.694)	(0.798)	(0.734)	(0.859)	(1.076)	(0.842)	(0.702)	(0.682)	(0.748)
Obs. left	375	367	379	365	367	362	375	367	365	365	367	362
Obs. right	691	677	706	1,583	1,651	1,522	691	677	661	1,583	1,651	1,522
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.6. Robustness Analysis for the SISBEN Access Outcome

Panel A. Polynomial of order zero												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.547***	0.379***	0.556***	0.625***	0.707***	0.668***	0.547***	0.379***	0.556***	0.625***	0.707***	0.668***
	(0.087)	(0.109)	(0.101)	(0.076)	(0.084)	(0.083)	(0.087)	(0.109)	(0.101)	(0.076)	(0.084)	(0.083)
Obs. left	500	289	430	472	276	392	500	289	430	472	276	392
Obs. right	1,138	546	850	1,778	1,541	1,674	1,138	546	850	1,778	1,541	1,674
Mean values (Non-RAMV)	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233	0.0233
Panel B: Polynomial of order one												
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	0.567***	0.528***	0.562***	0.653***	0.566***	0.652***	0.507***	0.382**	0.487***	0.608***	0.597***	0.629***
	(0.127)	(0.143)	(0.130)	(0.097)	(0.111)	(0.096)	(0.144)	(0.183)	(0.158)	(0.104)	(0.134)	(0.106)
Obs. left	467	366	457	467	348	452	467	366	457	467	348	452
Obs. right	990	713	934	2,053	1,594	2,127	990	713	934	2,053	1,594	2,127
Mean values (Non-RAMV)	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023
Panel C: Polynomial of order two												
	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.562***	0.635***	0.464***	0.567***	0.592***	0.596***	0.519***	0.556***	0.487***	0.469***	0.459***	0.482***
	(0.147)	(0.230)	(0.156)	(0.125)	(0.153)	(0.129)	(0.164)	(0.150)	(0.158)	(0.104)	(0.110)	(0.095)
Obs. left	578	366	500	375	362	376	578	366	457	375	362	376
Obs. right	1,232	713	1,138	1,735	1,808	2,060	1,232	713	934	1,735	1,808	2,060
Mean values (Non-RAMV)	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023	0.023
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.7. Robustness Analysis for the Subsidized Healthcare Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[\text{PEP}_i = 1]$	0.265***	0.312***	0.269***	0.294***	0.309***	0.311***	0.265***	0.312***	0.269***	0.294***	0.309***	0.311***
	(0.078)	(0.083)	(0.085)	(0.062)	(0.074)	(0.065)	(0.078)	(0.083)	(0.085)	(0.062)	(0.074)	(0.065)
Obs. left	447	399	377	450	373	413	447	399	377	450	373	413
Obs. right	851	711	694	1,468	1,003	1,353	851	711	694	1,468	1,003	1,353
Mean values (Non-RAMV)	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[\text{PEP}_i = 1]$	0.267**	0.276**	0.249*	0.333***	0.374***	0.343***	0.233*	0.204	0.201	0.292***	0.288***	0.247***
	(0.118)	(0.139)	(0.145)	(0.080)	(0.086)	(0.082)	(0.131)	(0.187)	(0.130)	(0.090)	(0.094)	(0.088)
Obs. left	429	346	355	417	336	352	429	346	355	417	336	352
Obs. right	764	564	631	1,550	1,335	1,554	764	564	631	1,550	1,335	1,554
Mean values (Non-RAMV)	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[\text{PEP}_i = 1]$	0.272*	0.250	0.280*	0.291***	0.283***	0.290***	0.255*	0.272*	0.201	0.232**	0.256**	0.224**
	(0.140)	(0.158)	(0.144)	(0.102)	(0.108)	(0.105)	(0.145)	(0.159)	(0.130)	(0.108)	(0.116)	(0.112)
Obs. left	480	422	472	452	409	431	480	422	355	452	409	431
Obs. right	981	736	952	1,562	1,460	1,531	981	736	631	1,562	1,460	1,531
Mean values (Non-RAMV)	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.8. Robustness Analysis for the Financial Products Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1[$PEP_i = 1$]	0.329***	0.454***	0.347***	0.341***	0.340***	0.350***	0.329***	0.454***	0.347***	0.341***	0.340***	0.350***
	(0.071)	(0.109)	(0.088)	(0.066)	(0.075)	(0.071)	(0.071)	(0.109)	(0.088)	(0.066)	(0.075)	(0.071)
Obs. left	487	317	415	469	339	374	487	317	415	469	339	374
Obs. right	1,101	563	829	1,447	1,025	1,405	1,101	563	829	1,447	1,025	1,405
Mean values (Non-RAMV)	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1[$PEP_i = 1$]	0.444***	0.463***	0.462***	0.369***	0.326***	0.379***	0.410***	0.521***	0.434***	0.371***	0.408***	0.379***
	(0.110)	(0.109)	(0.110)	(0.085)	(0.089)	(0.084)	(0.129)	(0.154)	(0.140)	(0.095)	(0.104)	(0.093)
Obs. left	466	415	466	480	413	469	466	415	466	480	413	469
Obs. right	992	829	992	1,866	1,594	1,940	992	829	992	1,866	1,594	1,940
Mean values (Non-RAMV)	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
1[$PEP_i = 1$]	0.451***	0.277	0.387***	0.253**	0.274**	0.204*	0.354**	0.283**	0.434***	0.280***	0.174	0.261***
	(0.129)	(0.177)	(0.146)	(0.113)	(0.119)	(0.118)	(0.150)	(0.134)	(0.140)	(0.099)	(0.108)	(0.101)
Obs. left	593	377	499	377	365	385	593	377	466	377	365	385
Obs. right	1,274	755	1,135	1,822	1,779	1,868	1,274	755	992	1,822	1,779	1,868
Mean values (Non-RAMV)	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.9. Robustness Analysis for the Transfers from Government Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.131*	0.268**	0.152*	0.102	0.121	0.094	0.131*	0.268**	0.152*	0.102	0.121	0.094
	(0.074)	(0.119)	(0.082)	(0.064)	(0.080)	(0.067)	(0.074)	(0.119)	(0.082)	(0.064)	(0.080)	(0.067)
Obs. left	463	287	434	467	287	448	463	287	434	467	287	448
Obs. right	976	530	857	1,584	1,145	1,549	976	530	857	1,584	1,145	1,549
Mean values (Non-RAMV)	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	0.221**	0.252**	0.221**	0.211**	0.184**	0.199**	0.247**	0.250*	0.256**	0.254**	0.172**	0.254**
	(0.097)	(0.106)	(0.102)	(0.091)	(0.088)	(0.091)	(0.114)	(0.146)	(0.126)	(0.107)	(0.086)	(0.110)
Obs. left	539	457	500	500	449	482	539	457	500	500	449	482
Obs. right	1,169	962	1,145	1,578	1,895	1,617	1,169	962	1,145	1,578	1,895	1,617
Mean values (Non-RAMV)	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.313***	0.285**	0.320**	0.292***	0.257**	0.274**	0.316**	0.346**	0.256**	0.375***	0.389***	0.376***
	(0.121)	(0.124)	(0.125)	(0.105)	(0.109)	(0.107)	(0.138)	(0.171)	(0.126)	(0.109)	(0.135)	(0.112)
Obs. left	596	549	578	531	549	527	596	549	500	531	549	527
Obs. right	1,314	1,182	1,241	1,880	1,773	1,988	1,314	1,182	1,145	1,880	1,773	1,988
Mean values (Non-RAMV)	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.10. Robustness Analysis for the Labor Outcomes Index

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.808	0.644	0.782	0.915	1.096*	0.944	0.808	0.644	0.782	0.915	1.096*	0.944
	(0.740)	(0.724)	(0.717)	(0.673)	(0.578)	(0.652)	(0.740)	(0.724)	(0.717)	(0.673)	(0.578)	(0.652)
Obs. left	377	341	368	357	342	352	377	341	368	357	342	352
Obs. right	810	631	774	1,125	1,084	1,078	810	631	774	1,125	1,084	1,078
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	1.327	1.177	1.361	1.012	1.276	1.090	1.468	0.961	1.300	0.901	0.992	0.844
	(1.209)	(1.093)	(1.230)	(0.836)	(0.821)	(0.812)	(1.571)	(1.434)	(1.718)	(0.985)	(0.902)	(0.966)
Obs. left	407	362	357	377	362	357	407	362	357	377	362	357
Obs. right	842	735	717	1,438	1,390	1,488	842	735	717	1,438	1,390	1,488
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	2.400	2.465*	2.218	1.280	0.434	1.309	2.919	2.468	1.300	1.524	1.553	1.257
	(2.143)	(1.473)	(2.143)	(1.380)	(1.130)	(1.393)	(1.786)	(2.277)	(1.718)	(1.564)	(1.526)	(1.692)
Obs. left	348	371	348	348	377	348	348	371	357	348	377	348
Obs. right	652	785	670	1,207	1,330	1,189	652	785	717	1,207	1,330	1,189
Mean values (Non-RAMV)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.11. Robustness Analysis for the Formal Job Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.080	0.081	0.070	0.100*	0.096*	0.103*	0.080	0.081	0.070	0.100*	0.096*	0.103*
	(0.069)	(0.063)	(0.069)	(0.058)	(0.049)	(0.057)	(0.069)	(0.063)	(0.069)	(0.058)	(0.049)	(0.057)
Obs. left	267	233	258	258	228	250	267	233	258	258	228	250
Obs. right	635	473	591	877	897	872	635	473	591	877	897	872
Mean values (Non-RAMV)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	0.108	0.029	0.117	0.067	0.094	0.091	0.101	0.171	0.090	0.068	0.055	0.060
	(0.107)	(0.142)	(0.119)	(0.080)	(0.065)	(0.072)	(0.125)	(0.168)	(0.152)	(0.092)	(0.085)	(0.086)
Obs. left	267	202	228	284	202	231	267	202	228	284	202	231
Obs. right	635	412	470	1010	1163	1105	635	412	470	1010	1163	1105
Mean values (Non-RAMV)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.177	0.173	0.172	0.126	0.027	0.113	0.199	0.157	0.090	0.159	0.102	0.133
	(0.144)	(0.148)	(0.136)	(0.129)	(0.110)	(0.125)	(0.162)	(0.195)	(0.152)	(0.162)	(0.099)	(0.167)
Obs. left	307	248	323	303	203	303	307	248	228	303	203	303
Obs. right	682	534	708	901	995	903	682	534	470	901	995	903
Mean values (Non-RAMV)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.12. Robustness Analysis for the Hours Worked Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	-0.229	-0.055	-0.262	-0.292	-0.310	-0.291	-0.229	-0.055	-0.262	-0.292	-0.310	-0.291
	(0.212)	(0.208)	(0.219)	(0.204)	(0.192)	(0.207)	(0.212)	(0.208)	(0.219)	(0.204)	(0.192)	(0.207)
Obs. left	143	143	143	132	140	130	143	143	143	132	140	130
Obs. right	301	305	302	579	431	579	301	305	302	579	431	579
Mean values (Non-RAMV)	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	-0.049	-0.302	0.017	-0.244	-0.345	-0.227	0.153	0.081	0.138	-0.169	-0.263	-0.198
	(0.308)	(0.326)	(0.322)	(0.255)	(0.294)	(0.253)	(0.343)	(0.391)	(0.388)	(0.282)	(0.291)	(0.291)
Obs. left	152	156	149	153	155	152	152	156	149	153	155	152
Obs. right	319	343	310	691	592	691	319	343	310	691	592	691
Mean values (Non-RAMV)	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.424	0.663	0.543	0.034	0.145	0.176	0.014	0.136	0.138	-0.368	-0.579	-0.334
	(0.525)	(0.623)	(0.502)	(0.343)	(0.393)	(0.385)	(0.374)	(0.521)	(0.388)	(0.348)	(0.430)	(0.396)
Obs. left	155	143	155	155	143	155	155	143	149	155	143	155
Obs. right	340	301	331	680	636	607	340	301	310	680	636	607
Mean values (Non-RAMV)	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937	3.937
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.13. Robustness Analysis for the Reservation Wage Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[PEP_i = 1]$	0.029	-0.223	0.025	0.011	0.015	0.016	0.029	-0.223	0.025	0.011	0.015	0.016
	(0.068)	(0.224)	(0.070)	(0.065)	(0.086)	(0.064)	(0.068)	(0.224)	(0.070)	(0.065)	(0.086)	(0.064)
Obs. left	110	80	108	99	82	103	110	80	108	99	82	103
Obs. right	173	92	170	269	187	276	173	92	170	269	187	276
Mean values (Non-RAMV)	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[PEP_i = 1]$	0.096	-0.133	0.132	0.059	0.104	0.065	0.097	-0.122	-0.051	0.074	0.036	0.086
	(0.071)	(0.234)	(0.101)	(0.072)	(0.076)	(0.076)	(0.087)	(0.197)	(0.178)	(0.076)	(0.100)	(0.083)
Obs. left	123	80	100	105	80	100	123	80	100	105	80	100
Obs. right	207	90	135	277	254	279	207	90	135	277	254	279
Mean values (Non-RAMV)	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564

Panel C: Polynomial of order two

	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[PEP_i = 1]$	0.112	0.089	-0.113	0.099	0.018	0.053	-0.847	0.722	-0.051	0.023	-0.201	-0.065
	(0.201)	(0.202)	(0.301)	(0.097)	(0.129)	(0.114)	(1.129)	(3.349)	(0.178)	(0.107)	(0.243)	(0.158)
Obs. left	105	100	83	105	83	83	105	100	100	105	83	83
Obs. right	153	136	105	353	343	359	153	136	135	353	343	359
Mean values (Non-RAMV)	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564	0.564
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.14. Robustness Analysis for the Job Satisfaction Outcome

Panel A. Polynomial of order zero												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1[$PEP_i = 1$]	0.061	-0.036	0.091	0.069	-0.040	0.087	0.061	-0.036	0.091	0.069	-0.040	0.087
	(0.155)	(0.166)	(0.159)	(0.157)	(0.153)	(0.155)	(0.155)	(0.166)	(0.159)	(0.157)	(0.153)	(0.155)
Obs. left	258	231	248	250	228	246	258	231	248	250	228	246
Obs. right	600	473	534	652	665	637	600	473	534	652	665	637
Mean values (Non-RAMV)	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324
Panel B: Polynomial of order one												
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1[$PEP_i = 1$]	0.119	0.218	0.052	0.180	0.248	0.183	0.058	0.080	0.097	0.142	0.115	0.182
	(0.248)	(0.268)	(0.307)	(0.195)	(0.198)	(0.211)	(0.277)	(0.348)	(0.334)	(0.212)	(0.219)	(0.219)
Obs. left	255	226	196	255	226	196	255	226	196	255	226	196
Obs. right	574	464	399	1068	1082	1040	574	464	399	1068	1082	1040
Mean values (Non-RAMV)	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324
Panel C: Polynomial of order two												
	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
1[$PEP_i = 1$]	-0.048	-0.107	-0.060	0.060	0.045	0.076	-0.138	-0.098	0.097	-0.068	-0.094	-0.028
	(0.351)	(0.385)	(0.381)	(0.287)	(0.288)	(0.293)	(0.340)	(0.411)	(0.334)	(0.316)	(0.329)	(0.322)
Obs. left	258	226	248	258	226	248	258	226	196	258	226	248
Obs. right	604	464	534	984	940	993	604	464	399	984	940	993
Mean values (Non-RAMV)	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324	0.324
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Table I.15. Robustness Analysis for the Self-Employed Outcome

Panel A. Polynomial of order zero

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$1[\text{PEP}_i = 1]$	-0.359*	-0.423**	-0.416**	-0.317*	-0.246	-0.357**	-0.359*	-0.423**	-0.416**	-0.317*	-0.246	-0.357**
	(0.187)	(0.212)	(0.211)	(0.169)	(0.174)	(0.181)	(0.187)	(0.212)	(0.211)	(0.169)	(0.174)	(0.181)
Obs. left	207	180	180	223	180	183	207	180	180	223	180	183
Obs. right	446	342	346	732	957	767	446	342	346	732	957	767
Mean values (Non-RAMV)	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430

Panel B: Polynomial of order one

	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
$1[\text{PEP}_i = 1]$	-0.471*	-0.487*	-0.680**	-0.378	-0.278	-0.421*	-0.679**	-0.871**	-0.822**	-0.558**	-0.568**	-0.558**
	(0.265)	(0.276)	(0.310)	(0.232)	(0.239)	(0.242)	(0.305)	(0.407)	(0.372)	(0.265)	(0.287)	(0.274)
Obs. left	239	228	199	233	228	199	239	228	199	233	228	199
Obs. right	495	471	410	852	804	837	495	471	410	852	804	837
Mean values (Non-RAMV)	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430

Panel C: Polynomial of order two

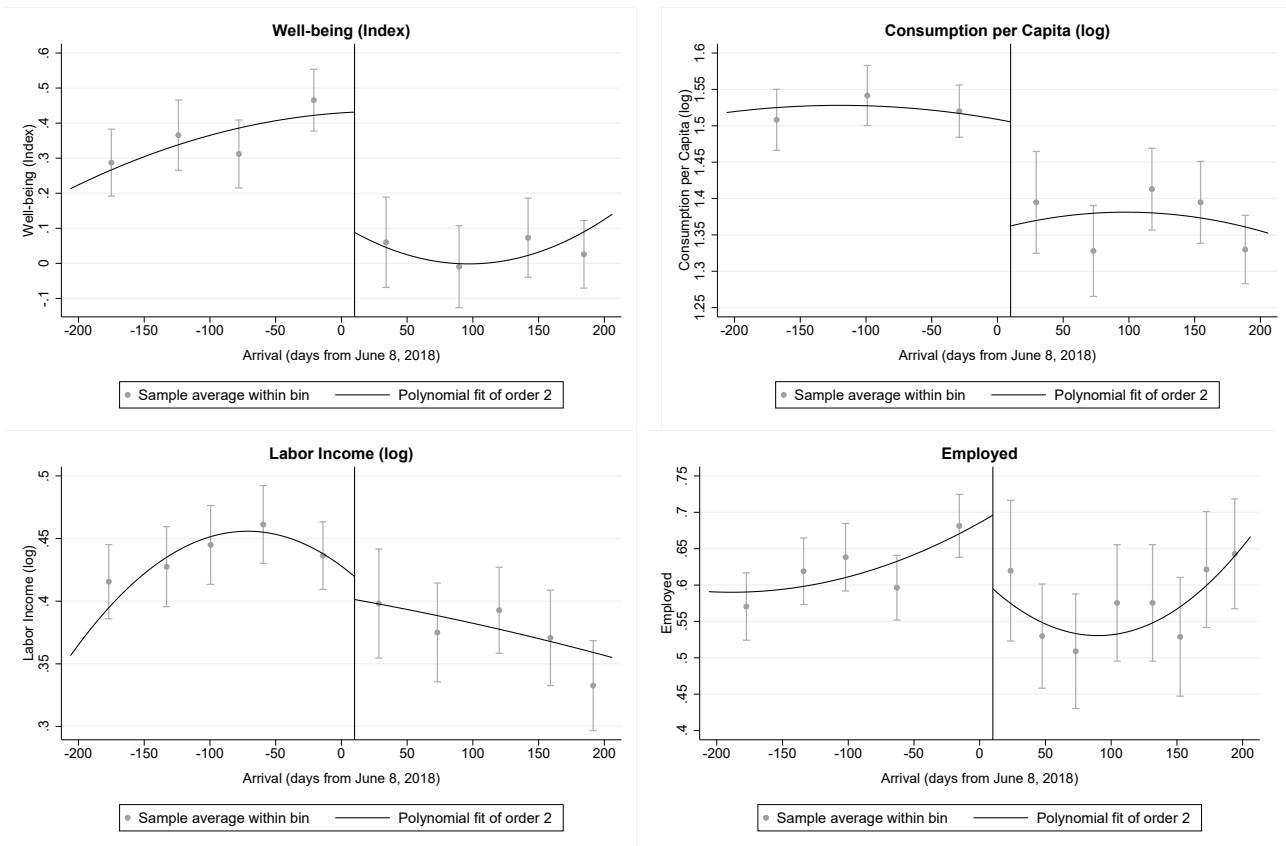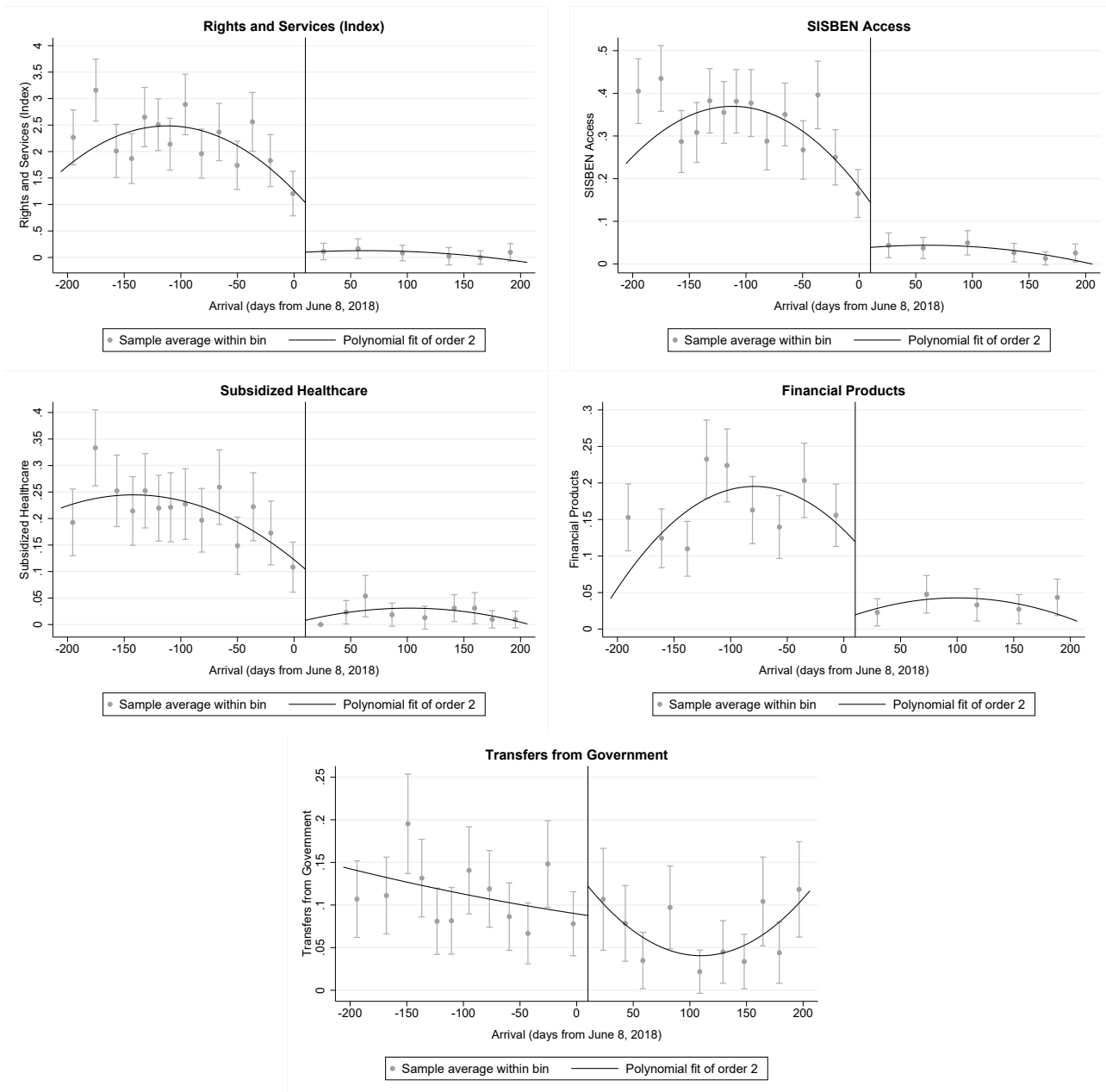|	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
$1[\text{PEP}_i = 1]$	-0.867**	-0.982**	-0.868**	-0.525*	-0.506	-0.474	-0.728**	-0.621	-0.822**	-0.537*	-0.402	-0.537
	(0.396)	(0.455)	(0.401)	(0.295)	(0.317)	(0.295)	(0.369)	(0.399)	(0.372)	(0.309)	(0.310)	(0.330)
Obs. left	238	208	238	238	208	238	238	208	199	238	208	238
Obs. right	493	447	493	948	981	973	493	447	410	948	981	973
Mean values (Non-RAMV)	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
Bandwidth type	mserd	mserd	mserd	msetwo	msetwo	msetwo	cerrd	cerrd	cerrd	certwo	certwo	certwo
Kernel	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov	triangular	uniform	epanechnikov

Notes: All columns include department (Antioquia, Atlántico, Bogotá, and Norte de Santander) and sampling-city fixed effects. Individual controls include: age, gender, and years of education before migration. Labor history in Venezuela controls include: ever worked [=1], type of job, had a written contract [=1], and gap between last job and migration. Household controls in Venezuela include: number of children; household size; if had energy, water, and sewage [=1]; owner of dwelling [=1]; and had smartphone [=1]. Migration decisions controls include: had family/friends in Colombia before migrating [=1], knew of job opportunities before migrating [=1], if the head migrated for health reasons [=1], and time of settlement in Colombia. Standard errors are reported in parentheses and False Discovery Rate (FDR) q-values are reported in brackets. *** significant at the 1%, ** significant at the 5%, * significant at the 10%.

Figure H.1. Socioeconomic Well-being – Fuzzy RD Plots with Local-quadratic Fitted Polynomial

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

Figure H.2. Rights and Services – Fuzzy RD Plots with Local-quadratic Fitted Polynomial

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

Figure H.3. Labor Outcomes – Fuzzy RD Plots with Local-Quadratic Fitted Polynomial
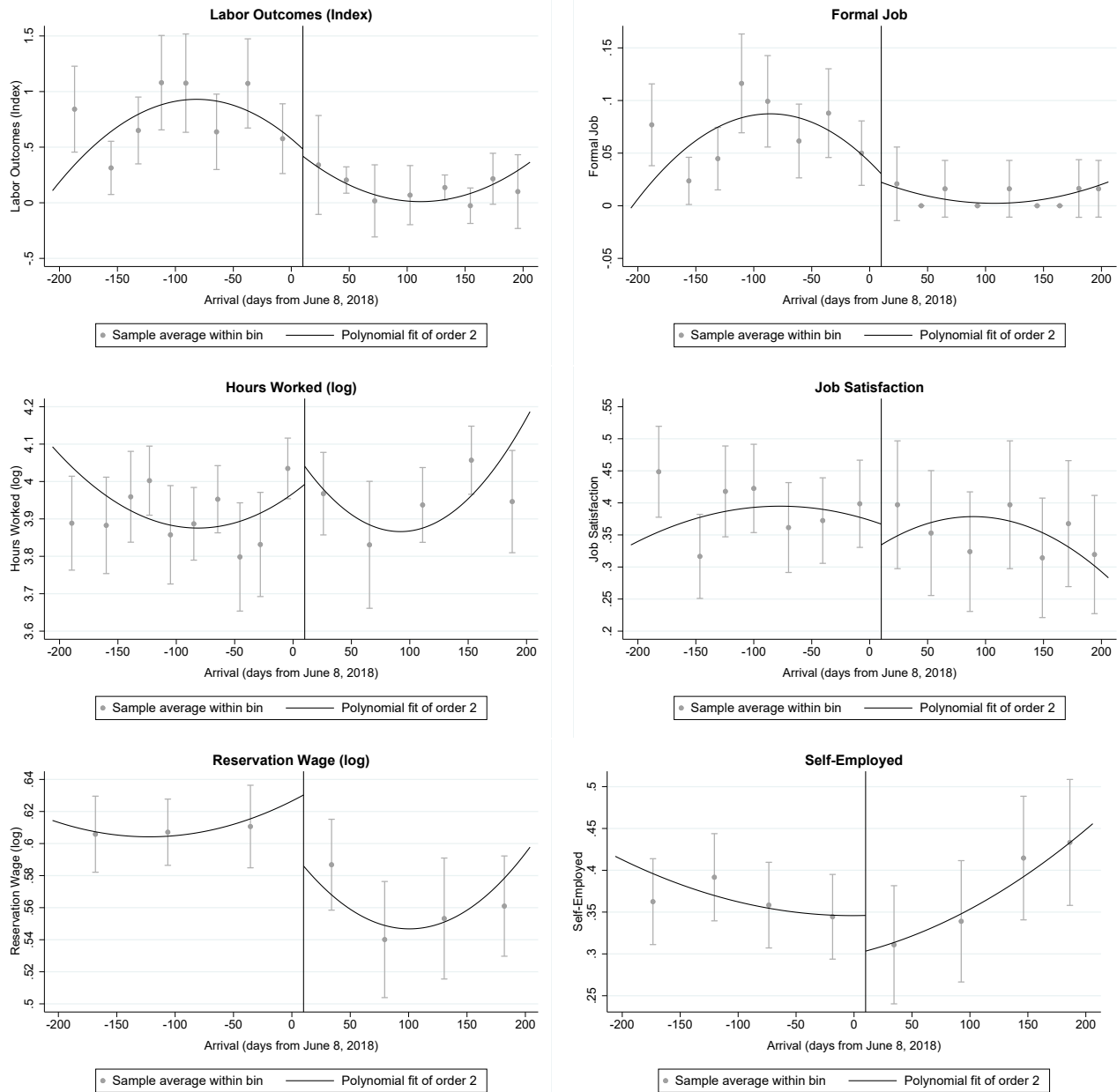

Notes: Each graph depicts the bias-corrected estimator 200 days around June 8, 2018, when the RAMV census closed, and the mean squared error (MSERD) optimal bandwidths. Confidence intervals are at the 95% significance level.

J Characterization of Venezuelan Refugees with Formal Jobs

Table J.1. Descriptive Statistics – Main Outcomes: Refugees with Formal Jobs

	Formal Job	Informal Job	Mean Difference (p-value)
	(1)	(2)	(3)
A. Socioeconomic Well-being			
Well-being (Index)	1.731	1.101	0.000
	(0.974)	(0.877)	
Consumption per Capita (log)	1.821	1.661	0.003
	(0.489)	(0.566)	
Labor Income (log)	0.671	0.464	0.000
	(0.320)	(0.231)	
B. Rights and Services			
Rights and Services (Index)	3.528	3.486	0.899
	(2.573)	(3.525)	
SISBEN Access	0.512	0.506	0.897
	(0.502)	(0.500)	
Subsidized Healthcare	0.09	0.344	0.000
	(0.288)	(0.475)	
Financial Products	0.637	0.23	0.000
	(0.483)	(0.421)	
Transfers from Government	0.056	0.147	0.006
	(0.232)	(0.354)	
C. Labor Outcomes			
Labor Outcomes (Index)	11.924	0.116	0.000
	(0.751)	(0.639)	
Hours Worked (log)	3.867	3.912	0.388
	(0.439)	(0.542)	
Job Satisfaction	0.694	0.425	0.000
	(0.463)	(0.495)	
Self-Employed	0.008	0.345	0.000
	(0.090)	(0.476)	
Observations	124	940	1,064

Notes: The table depicts the difference between Venezuelan refugees with PEP by having a formal job. The variable Formal Job is a indicator [=1] if the respondent has a written or verbal contract and saves in a pension fund.

Table J.2. Descriptive Statistics – Pre-migration Characteristics: Refugees with Formal Jobs

	Formal Job	Informal Job	Mean Difference (p-value)
	(1)	(2)	(3)
A. Demographics			
Female [=1]	0.25	0.364	0.013
	(0.435)	(0.481)	
Age (years)	35.169	33.905	0.190
	(8.848)	(10.251)	
Number of Venezuelan children	1.129	1.482	0.014
	(1.196)	(1.532)	
Years of education before migration	14.395	13.637	0.003
	(2.230)	(2.759)	
Migrated for health reasons	0.089	0.116	0.368
	(0.285)	(0.320)	
Time in Colombia (months)	26.098	27.566	0.122
	(10.006)	(9.911)	
Friends or family in Colombia before migration	0.726	0.704	0.621
	(0.448)	(0.457)	
B. Employment in Venezuela			
Ever worked in Venezuela [=1]	0.984	0.986	0.838
	(0.126)	(0.117)	
Employed at private firm in Venezuela [=1]	0.629	0.587	0.376
	(0.485)	(0.493)	
Employed with Government in Venezuela [=1]	0.185	0.159	0.455
	(0.390)	(0.366)	
Self-employed or employee in Venezuela [=1]	0.169	0.212	0.267
	(0.377)	(0.409)	
Had a written contract in Venezuela [=1]	0.653	0.543	0.020
	(0.478)	(0.498)	
Knew of job opportunity before migrating [=1]	0.274	0.327	0.240
	(0.448)	(0.469)	
Gap between last job and migration (months)	1.032	0.982	0.899
	(4.371)	(4.139)	
C. Housing Characteristics in Venezuela			
Had smartphone in Venezuela [=1]	0.782	0.661	0.007
	(0.414)	(0.474)	
Had a dwelling in Venezuela [=1]	0.774	0.865	0.007
	(0.420)	(0.342)	
Had electricity in Venezuela [=1]	0.992	0.995	0.702
	(0.090)	(0.073)	
Had running water in Venezuela [=1]	0.952	0.885	0.024
	(0.215)	(0.319)	
Had sewage in Venezuela [=1]	0.927	0.947	0.376
	(0.260)	(0.225)	
Lived in Venezuela with parents or siblings [=1]	0.403	0.422	0.686
	(0.493)	(0.494)	
Lived in Venezuela with partner or spouse [=1]	0.613	0.59	0.632
	(0.489)	(0.492)	
Observations	124	940	1,064

Notes: The table depicts the difference between Venezuelan refugees with PEP by having a formal job. The variable Formal Job is a indicator [=1] if the respondent has a written or verbal contract and saves in a pension fund.

Table J.3. Descriptive Statistics – Pre-migration Characteristics: Refugees with Formal Jobs

| | Formal Job |
	(1)
A. Demographics	
Female [=1]	-0.055**
	(0.023)
Age (years)	0.001
	(0.001)
Number of Venezuelan children	-0.012
	(0.008)
Years of education before migration	0.009**
	(0.004)
Migrated for health reasons	-0.021
	(0.033)
Time in Colombia (months)	-0.002
	(0.001)
Friends or family in Colombia before migration	0.000
	(0.023)
B. Employed in Venezuela	
Ever worked in Venezuela [=1]	-0.120
	(0.112)
Employed at private firm in Venezuela [=1]	0.054
	(0.068)
Employed with Government in Venezuela [=1]	0.052
	(0.072)
Self-employed or employee in Venezuela [=1]	0.044
	(0.071)
Had a written contract in Venezuela [=1]	0.028
	(0.025)
Knew of job opportunity before migrating [=1]	-0.033
	(0.022)
Gap between last job and migration (months)	0.000
	(0.003)
B. Housing Characteristics in Venezuela	
Had smartphone in Venezuela [=1]	0.053**
	(0.023)
Had a dwelling in Venezuela [=1]	-0.079***
	(0.030)
Had electricity in Venezuela [=1]	-0.001
	(0.139)
Had running water in Venezuela [=1]	0.090**
	(0.038)
Had sewage in Venezuela [=1]	-0.109**
	(0.051)
Lived in Venezuela with parents or siblings [=1]	-0.023
	(0.025)
Lived in Venezuela with partner or spouse [=1]	-0.003
	(0.025)
R-squared	0.050
Observations	1,002
Join F-Test	0.0003

Notes: The table depicts a regression where the dependent variable is Formal Job, which is an indicator [=1] if the respondent has a written or verbal contract and saves in a pension fund, and the explanatory variables are all the covariates in this table. The joint orthogonality test p-value is 0.000.

K   Sector Change

Table K.1. Sector Change between the First Job in Colombia and Current Job in Colombia

	PEP [=1]	PEP [=0]	**Difference** PEP [=1]-PEP [=0]	Mean-Diff. (P-value)	Observations
	(1)	(2)	(3)	(4)	(5)
A. Sector Change [=1]					
Labor Income (log)	0.52	0.36	0.16***	0.00	570
Years of education before migration	14	13.28	0.72***	0.00	632
Weekly Hours Worked (log)	3.84	3.9	-0.06	0.29	416
Consumption per capita (log)	1.45	1.18	0.27***	0.00	632
B. Sector Change [=0]					
Labor Income (log)	0.50	0.38	0.12***	0.00	351
Years of education before migration	13.66	13.25	0.41	0.11	414
Weekly Hours Worked (log)	3.99	4.00	-0.01	0.95	261
Consumption per capita (log)	1.40	1.16	0.24***	0.00	414

Table K.2. Sector Change between the Best Job in Venezuela and the Current Job in Colombia

	PEP [=1]	PEP [=0]	Difference PEP [=1]-PEP [=0]	Mean-Diff. (P-value)	Observations
	(1)	(2)	(3)	(4)	(5)
A. Sector Change [=1]					
Labor Income (log)	0.50	0.34	0.16***	0.00	1,225
Years of education before migration	13.77	13.11	0.66***	0.00	1,379
Weekly Hours Worked (log)	3.91	3.94	-0.03	0.39	832
Consumption per capita (log)	1.42	1.16	0.26***	0.00	1,379
B. Sector Change [=0]					
Labor Income (log)	0.49	0.39	0.10***	0.00	520.00
Years of education before migration	13.68	12.86	0.82***	0.00	587.00
Weekly Hours Worked (log)	3.91	3.93	-0.02	0.78	350.00
Consumption per capita (log)	1.39	1.18	0.21***	0.00	587.00