Labor Market Effect of Granting Amnesty to Venezuelan Refugees and Migrants in the Dominican Republic[*]

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Abstract

This paper examines the impact of a recent amnesty on the labor market outcomes of Venezuelan refugees and migrants in the Dominican Republic. We compare the outcomes of those who received and did not receive ID Cards before and after their issuance, leveraging the unexpected timing of the ID Card distribution. Our findings reveal negligible effects on the extensive margin, such as participation in the labor market or employment, but indicate positive effects on the quality of employment, particularly in the formal sector. However, no discernible impact is observed on the likelihood of being overqualified for one's job or on salaries. The results suggest that the amnesty has

benefited Venezuelan migrants, but additional reforms, such as title validation, may be necessary to address the remaining barriers to their effective integration.

1 Introduction

There are various barriers that hinder migrants' integration into host communities, but perhaps the most crucial to address is the lack of legal permission to stay in the destination country and its impact on accessing economic opportunities. Amnesty processes, which offer individuals the opportunity to obtain a regular migratory status in the host country, can significantly expedite the integration process for migrants. With a regular migratory status, refugees and migrants who would otherwise encounter obstacles in securing formal employment or accessing public services can now benefit from these services and actively participate in the labor market.

We examine the effect of the amnesty on the labor outcomes of the Venezuelan refugees and migrants in the Dominican Republic. The amnesty was granted through the *Plan de Normalización de Migrantes Venezolanos en la República Dominicana* (PNV). Over 115 thousand Venezuelans, roughly one percent of the country's population, were eligible for the amnesty process. This process offered them a renewable one-year ID Card known as the PNV ID Card. Possession of this card granted various rights, including the ability to work legally, contribute to social security, obtain medical insurance, and apply for a driver's license. Eligibility for the amnesty was conditional on being Venezuelan and having entered the country between January 2014 and March 2020.

Our analysis estimates the impact of the ID Card on migrants' participa-

tion in the labor market, their likelihood of being employed, and the quality of their employment conditions. We aim to estimate the causal effect of the PNV through a difference-in-difference model that compares the outcomes of Venezuelans who received and did not receive the ID Card before and after they were issued.

We utilized panel data collected every six months (a total of three survey rounds), beginning in December 2021, for a sample of 931 Venezuelan refugees and migrants. Given the absence of sampling frame for this population, we employed a Respondent Driven Sampling (RDS) methodology to construct our sample. Each of the three survey rounds incorporated comprehensive inquiries into individuals' employment conditions and migratory status. Additionally, we gathered information on each participant's employment history and wealth in Venezuela.

We found negligible effects of the PNV on the likelihood of Venezuelans participating in the labor market or being employed. Nevertheless, we observed positive effects on the labor conditions of Venezuelans, measured by the likelihood of having a written contract and the probability of working in the formal sector. Surprisingly, the ID Card does not appear to reduce the likelihood of being overqualified for one's job, contribute to an increase in salary, or decrease the likelihood of working extended hours. The positive impact of labor formality, as defined by having a written contract, seems to be more pronounced among females than males.

We explore variations in the effects of the ID Card between early-treated and tardily-treated individuals to examine the differences in the effect over time. Overall, all estimates go in the same direction. Moreover, the effect of the PNV appears to be stable over time. To gain a more comprehensive

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understanding of the mechanisms through which the amnesty process influenced labor market outcomes for Venezuelans, we will investigate whether the increased likelihood of working in the formal sector is driven by improved conditions with existing employers or by individuals finding employment with new entities that offer better working conditions.

This paper contributes to the existing literature in several dimensions. First, unlike the majority of studies focusing on the impact of amnesties or regularization programs in developed countries, particularly the United States (Chassamboulli and Peri, 2015, Cobb-Clark et al., 1995) and Europe (Devillanova et al., 2018, Monras et al., 2021), our research addresses the context of developing countries. Developing nations often contend with informal labor markets and weaker healthcare and education services. For example, in the Dominican Republic, over 50 percent of employed individuals work in the informal sector.

Our findings align with Ibáñez et al. (2022), who investigated the impact of the PEP (*Permiso Especial de Permanencia*) regularization program in a similar context, Colombia, and found that it increased labor formalization by ten percentage points. Our results complement the conclusions drawn by Ibáñez et al. (2022) and Bahar et al. (2021), indicating that migration reforms are unlikely to significantly impact native labor market outcomes, especially in countries with high informality levels like Colombia and the Dominican Republic, where most migrants with work permits tend to remain in the informal sector.

Second, the case of the Dominican Republic is of particular interest because the regularization process granted access to formal employment but excluded access to other government services, unlike the PEP visa in Colom-

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bia. Since a significant portion of the positive effects of the PEP in Colombia appear to stem from increased access to public services, studying the PNV program, which provides a subset of public benefits, allows us to assess whether granting access to a smaller set of benefits still improves migrants' overall well-being.

Third, the business sector in the Dominican Republic faces challenges in recruiting qualified personnel, partially attributed to the average years of education and the skills of college graduates in the country's workforce. Analyzing the effects of the PNV provides an opportunity to investigate if granting migrants a right to work is sufficient to incentivize this population to work in the formal sector in a context of high demand for skilled labor.

2   Background

The Dominican Republic has a long history of both emigration and immigration. Despite experiencing significant economic growth, the country has historically witnessed a higher number of emigrants compared to immigrants (IADB, 2023). As of 2020, over 1.5 million Dominicans lived outside the island (12 percent of the country's population), most of whom resided in the United States and Spain. However, there has been a notable increase in the number of immigrants over the past decade, rising from 390 thousand in 2010 to over 675 thousand in 2020. Specifically, in 2022, approximately 115 thousand of these migrants originated from Venezuela, representing around one percent of the country's population (R4V, 2022).

The majority of Venezuelan refugees and migrants entered the country by air (OIM, 2017). This can be explained by the significant distance between Venezuela and the Dominican Republic and the fact that, prior to 2019,

there were no travel restrictions for Venezuelans in the Dominican Republic. At that time, Venezuelans could obtain a tourism travel authorization for 30 days upon arrival as long as they had a valid passport (OBMICA, 2020). However, since December 16th, 2019, Venezuelan immigrants have been required to obtain a travel visa to enter the country (OBMICA, 2020). Among the Venezuelan migrants who entered the country until the end of 2019, roughly 13,000 requested and received a temporary or permanent residence permit. Among those permits, roughly 60 percent had expired by 2020.(OBMICA, 2020) Moreover, estimates from the DMG (Dirección General de Migración, in Spanish) indicated that an additional 100,000 migrants without regular migratory status lived in the country in 2020.

In January 2021, in response to the significant number of Venezuelans residing in the country without regular migratory status, the government implemented a legal pathway. This initiative aimed to provide Venezuelan migrants who entered the Dominican Republic between January 2014 and March 2020 with a temporary non-resident permit called the *Plan de Normalización de Migrantes Venezolanos en la República Dominicana*. The program was divided into three phases. In the first phase (April 2021), Venezuelan migrants could register online to request a sixty-day extension to their current migratory status. With that extension, migrants became eligible to request a status change to a non-resident visa, either an employment or student visa (second phase, in June 2021). Both non-resident visas were valid for one year and authorized migrants to enter the country multiple times, allowing them to travel back to Venezuela. In the third and final phase of the program, which started in October 2021, Venezuelan migrants could request an employment or student non-resident identification card (hereafter referred to as an ID Card).

It is important to point out that there are several differences in terms of rights given between the visa and the ID card. The first main difference is that the visa was not renewable after one year, as it was just an intermediate step into obtaining the ID card. Furthermore, even though both legal instruments allow individuals to formally work, migrants with an ID card perceived it as superior because it granted additional rights. The ID Card has a wider scope as it is provided for in the immigration legislation. This, therefore, could make it a more well-known, widespread and accepted document before different entities that recognize it as a temporary residence document. Another advantage of the ID Card was the ability to access social security, obtain medical insurance, and apply for a driver's license. Moreover, Venezuelans reported feeling calmer and safer with an ID Card than with a visa, among other things, because it was easier to leave the country and return (Loschmann et al., forthcoming).

3 Data

This section outlines the data collection process and provides details about the sample. Recognizing the challenges associated with surveying immigrants lacking regular migratory status, we offer a thorough description of the sampling methodology. To the best of our knowledge, this study is among the first to survey migrants without a regular status, utilizing a respondent-driven sample methodology.

3.1 Sampling Approach

The data collection was conducted at the national level, although the majority of the sample was concentrated in the capital and surrounding metropolitan area (75%). The participants consisted of Venezuelan migrants aged 18

and above who had arrived in the Dominican Republic after January 2014 and were therefore eligible for the PNV. It is worth noting that migrants could have arrived just before the data collection process, as the only cutoff date for eligibility was set after 2014.

Participants were recruited via respondent-driven sampling (RDS), an extremely successful methodology to obtain reliable data from hard-to-reach populations, including migrants (Tyldum and Johnston, 2014). We selected this strategy as, even though it is a non-probability-based approach, under certain conditions, it can generate a representative sample exploiting waves of peer-to-peer recruitment and statistical adjustments to approximate random sampling.[1]

To build the sample, we selected six seeds as the initial contact points for recruiting the target population. Seeds were selected based on their demographic characteristics, existing networks with Venezuelan migrants, and potential ability to initiate recruitment chains. We recruited a diverse group of seeds based on age, gender, and immigration status. Nevertheless, two weeks after the beginning of the study, we added two additional seeds with the objective of increasing geographic location diversity. A week later, we added an additional seed with the goal of increasing the share of irregular migrants in the study.

Seed participants were first contacted and informed about the study through WhatsApp. Then, each seed received a link to an online survey. After confirming eligibility and informed consent, each seed completed a short self-administered survey with questions about the migration history and immigration status of all household members. Finally, consistent with the

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[1]For more information, see Górny and Napierala (2016); Tyldum (2021).

RDS methodology, each seed could refer to up to three additional contacts. All participants received $3 USD for completing the short survey and could receive an additional $3 USD per referral.

With this strategy, we recruited a total sample of 1,813 Venezuelans.[2] The first round of fieldwork started in December 2021, where we contacted respondents to conduct an in-depth half-hour phone survey. Respondents were contacted again six months and a year later to complete two additional half-hour phone surveys (in June 2022 and January 2023, respectively). In total, 1,333 individuals completed the first in-depth survey, 1,114 completed the first two surveys, and 975 completed all three surveys.

We constructed the sample in two stages: initially, through a brief online survey, followed by an in-depth survey. This approach facilitated faster data collection, as we did not need to wait for respondents to schedule the half-hour in-depth interview for additional referrals. However, this strategy also reduced the likelihood that individuals who did not register for the normalization plan or did not complete the first phase of the normalization program answered the in-depth survey. Unfortunately, the information from the initial online questionnaire is insufficient to determine if respondents also differ in other characteristics. Still, we acknowledge that the two-stage RDS approach likely reduces the representativeness of our sample.

We examine the correlation between attrition from the first to the third rounds and baseline characteristics, presenting the results in Table A. We included demographic characteristics, the level of education at arrival, the initial household size, whether the participants had applied for the visa at baseline, their household size, and the level of Integration. Age is the only

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[2]Appendix B describes in more detail the recruitment process by seed as well as the length of the recruitment chains.

statistically significant characteristic; however, the observed effect is not economically meaningful.

3.2 Outcomes

The information about participation in the amnesty process comes from the three rounds of surveys. Each survey includes a binary indicator indicating whether the respondent completed a particular phase of the normalization process, along with the date of visa and ID Card issuance for those who received them. Figure C1 displays the share of Venezuelan refugees and migrants moving through the various phases of the program.

As expected, considering that the registration window closed prior to the first round of data collection (April 2021), the share of the sample registered for the PNV is unchanged across survey rounds and hovers around 90%. This indicates that the promotion of the program has been relatively successful. However, this proportion contrasts with administrative data, which estimates that approximately a third of Venezuelans residing in the country are registered.[34] One explanation for this discrepancy is that the majority of unregistered cases are from respondents who believe it is unnec-

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[3]The normalization program began in April 2021, and the program's progress can also be tracked using administrative data. First, nearly 43,000 Venezuelan refugees and migrants are registered in the system, which is estimated to be more than a third of the total Venezuelan population in the Dominican Republic. Of those eligible individuals who applied for the second stage, nearly 25,000 have received a one-year, renewable visa. The vast majority, 85%, are work visas, whereas the remaining are student visas. Finally, of those who received a visa and applied for the last stage to receive a non-resident stay permit, more than 20,000 have ID Cards, providing access to formal labor markets, opportunities in higher education, and expanded public services in the Dominican Republic.

[4]Although the share of the sample who registered and received the non-resident ID Card is in line with the administrative data, the share of respondents in our sample reporting having registered in the PNV is considerably higher than the official statistics reported by the authorities. This suggests that our sampling approach is biased towards the population that registered in the regularization plan, and the individuals who did not register in the PNV were less inclined to participate in the study. Alternatively, it is possible that the total population of Venezuelan refugees and migrants in the Dominican Republic is over-estimated, and the true figure is lower than the 115,000 officially cited.

essary to register because they already have a valid regular status through another means. Nevertheless, nearly 20% of unregistered respondents cite lack of information or uncertainty about the program as their reasons for not registering.

Figure C1 also illustrates the share of Venezuelan refugees and migrants moving through various stages of the program once registered. The number of respondents in our sample who completed Stage 1 increased by ten percentage points from round 1 to round 3. More noticeably, there is a 43 and 45 percentage point increase in Stage 2 and Stage 3, respectively. While the share of the registered population with an ID Card has increased considerably between rounds, the figure also indicates how relatively few people still have regular status through a visa or ID Card.

The survey instrument included detailed questions about respondents' employment history and wealth in Venezuela. Our primary focus revolved around key indicators such as the respondent's current engagement in the labor market—indicating whether they were actively employed, seeking work, or available for employment. We delved into the specifics of their current employment status, distinguishing between those with and without formal work contracts, whether verbal or written, and gathering data on their monthly salary. In addition, we identified whether individuals were overqualified for their jobs based on their educational attainment and current employment. Specifically, we defined individuals as overqualified if they had a high level of education but worked in a job where the average level of education was below their skill level.

3.3 Summary Statistics

Figure 1 illustrates how the majority of Venezuelan respondents reside in the capital and surrounding metropolitan area of Distrito Nacional and Santo Domingo province. The remaining 25% are spread across the country, although nearly 10% reside in the northwest province of Santiago.

Table 1 summarizes the demographic characteristics of Venezuelan migrants in the Dominican Republic. Venezuelans in our sample are younger than Dominicans. On average, respondents are 36 years old, 50 percent of them are 32 years old or less, and only one percent of respondents are over 65 years old; in contrast, on average, adult Dominicans are 43 years old, 50 percent of them are 41 years old or less, and over ten percent of the respondents are over 65 years old. Regarding the socioeconomic characteristics, Venezuelans in our sample are highly educated: 20 percent have technical education, and 46 percent have some college or more. These percentages indicate that the average level of education among Venezuelan migrants is much higher than the level of education of Dominicans, where only seven percent have some college and another seven percent have completed college. Regarding the employment conditions at baseline, the table also shows that Venezuelans are active, and the large majority of them are working. Nevertheless, only 21% of workers have a written contract, and 19% work in the formal sector. The average wage is 17,676 Dominican pesos, which is roughly 300 USD.[5]

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[5]It is worth mentioning that the characteristics of the Venezuelan migrant sample in our study resemble those observed in the region. Venezuelan migrants tend to be young, working age, employed and highly educated (IDB and UNDP, 2023)

4 Identification Strategy

The effect of receiving the ID Card from the PNV amnesty cannot be esti-
mated by comparing the labor market outcomes of Venezuelan individuals
who received the ID against those who did not. This is because obtaining
a PNV ID Card requires individuals to complete a series of administrative
steps and pay several fees. Therefore, individuals who obtain the ID Card
may be systematically different from those who do not obtain the ID Card.
For this reason, we use a difference-in-differences strategy to estimate the
impact of the amnesty.Furthermore, we also chose this strategy over using
the timing of the PNV cut of date for an event study (before and after the
PNV implementation) due to two main reasons: first,there was already a visa
in place before the implementation of PNV in December 2019. This means
that individuals who migrated before 2020 may be different from each other
due to various factors, such as the conditions under which they migrated,
their socio-economic status, their reasons for migrating, etc. These inherent
differences among individuals before 2020 could confound the results of the
event study, making it challenging to isolate the specific impact of the PNV
implementation. Secondly, the COVID-19 pandemic had significant implica-
tions for global migration patterns, including those of Venezuelan migrants
to the Dominican Republic. The imposition of travel restrictions in 2020
likely disrupted migration flows, making it difficult to separate the impact
of the pandemic. This would introduce additional noise into the analysis
and could obscure the true impact of the PNV.

The main specification uses individual-semester employment variation and
exploits the unexpected timing of the ID Card issuance. The estimating
equation is:

$$Y_{it} = \alpha Post * ID_{it} + \gamma_t + \gamma_i + \epsilon it \qquad (1)$$

Where i stands for individual and t stands for the round of the survey. Y represents the labor market outcome of interest, ID Card is an indicator variable that takes the value of one if the individual received the ID Card at any point in time, and Post is an indicator variable that takes the value of one if the individual had received the ID Card at that point in time. We confined our analysis to a balanced panel data set, keeping only respondents who participated in all three rounds. We clustered the standard errors at the individual to account for serial correlation.

The coefficient of interest in α. It represents the average effect of obtaining an ID Card on Venezuelan migrant's labor market outcomes. The key identification assumption is that individuals who received the ID Card have similar counterfactual trends relative to individuals who did not receive the ID Card. We also present event-study estimates by replacing $Post * ID_{it}$ in equation (1) with indicators of months since receiving the ID Card. This approach allows us to visualize any difference in labor market outcomes before and after receiving the ID Card and tests the validity of the parallel trends assumption.

To estimate the effect, we presume the information from the first round to be baseline data because data collection took place before anyone received the ID Card. However, although no one had received the ID Card when the first round was collected, roughly 20% of the sample had received the visa. This has two implications. First, if employers in the labor market treated the visa the same way as the ID Card (i.e., if employers were more likely to hire individuals with the visa), our estimate of the effect is a lower

bound of the true effect of the program. Second, if individuals changed their behavior because they anticipated changes in their migratory status and ability to work formally, the effect of the amnesty program will also be biased downward, and the estimate of the effect would be a lower bound than the true effect of the program.

5   Results

Figure 2 reports the Difference in Difference estimates for a variety of employment outcomes, indicating the impact of receiving the ID Card. The results show that the PNV ID Card has had no discernible impact on the external margin, meaning there is no evidence that receiving the ID Card contributed to a higher likelihood of being active in the labor market or working for either men or women. This is likely due to the fact that 98 percent of men and women already participate in the labor market, and more than 95 percent of them are employed.

On the other hand, receiving the ID Card positively and significantly affects the likelihood of having a written contract and having a formal job (this is defined as contributing to health insurance and pension). The impact of the ID Card on the likelihood of having a formal job appears to be larger for women. Specifically, women who received the ID Card are six percentage points more likely to work with a written contract than females who did not receive the ID Card. The effect for men is smaller and is not statistically significant. In contrast, the effect of the ID Card on the likelihood of obtaining a formal job appears to be similar across genders. However, the effect is only significant when looking at both groups together — when the larger sample size makes the estimates more precise.

Notably, obtaining the PNV ID Card does not seem to mitigate the likelihood of being overqualified for one's job, contribute to an increase in salary, or reduce the likelihood of working extended hours. The lack of a positive effect on these outcomes may be related to the lack of recognition of foreign tertiary education in the Dominican Republic. In fact, although the percentage of individuals with apostilled titles increases across survey rounds, the percentage of individuals with a valid title did not increase.

To investigate whether the effect of the PNV ID Card varied over time, in Figure 3 we report the estimates of an event-study type analysis for the main employment outcomes. Each panel shows the estimates of a regression of an employment outcome on dichotomous variables of the number of months since the individual received the ID Card. Unfortunately, the number of observations in each bin is small, and the estimates are not precise enough to shed evidence on the validity of the parallel trends assumption or the effect of the PNV over time. Although the estimates are noisy, it appears that the estimates in this figure, excluding individuals who never obtained the ID Card, are different from those that include that source of variation. Therefore, in the next two figures, we investigate the reasons that may be driving the differences.

First, in Figure 4, we drop the information from the second round. We estimate the effect using a simple two-period difference in difference (DiD) strategy as no one has received the ID in the baseline, and everyone who received the ID Card received it by the third round of the survey. The estimates of this exercise correspond to the triangle markers in the figure and are labeled DiD. Then, we include individual-level controls measured at the baseline.[6] The estimates of this exercise correspond to the square markers in

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[6]Specifically, we include age at arrival, gender, education level at arrival, and a mea-

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the figure and are labeled Controls. Finally, we estimate the effect, including individual fixed effects. The estimates of this exercise correspond to the circle markers in the figure and are labeled Individual FE. Reassuringly, the estimates and the confidence intervals are almost identical.

The two-way fixed effect estimates are based on comparisons across all cohorts with each other as long as there is variation in treatment status in that time window. To better understand the variation that produces the estimates in figure 2, we decompose the effect into multiple two-period DiD comparisons in 4. In the figure, Group One corresponds to the individuals who received the ID Card prior to the second survey, and Group Two corresponds to the individuals who received the ID between the second and third rounds of the survey. Both groups also include the individuals who never received the ID Card or the individuals who were never treated. Group All includes the full sample. The numbers in the legend of the figure indicate the survey rounds included in the comparison. For instance, 1 vs 2 (All) reports the DiD estimates of a model including all individuals based on the first two rounds of the survey. Likewise, 1 vs 3 (Group 2) reports the DiD estimates of a model including only the individuals from Group Two based on the first and third rounds of the survey.

Overall, all estimates in the figure go in the same direction. Interestingly, the positive effect on the likelihood of having a written contract appears to be driven by Group Two, those treated between the second and third rounds, instead of being higher among those treated early (Group One) — who have been treated for a longer period of time by the third round. In

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sure of wealth in Venezuela. The wealth index is created through a principal component analysis based on the ownership of four assets (a house, a vehicle, land, or a business) in Venezuela.

contrast, the positive effect of the likelihood of having a formal job is similar across all comparison groups, and, if anything, the effect seems to be driven by Group One, who were treated early.

6   Concluding remarks

This paper investigates the effect of the ID Card, marking the culmination of the Permanent Non-Citizen Visa process in the Dominican Republic, on Venezuelan labor market outcomes in the Dominican Republic. Beyond granting beneficiaries a work permit, the ID Card allowed individuals to access social security, obtain medical insurance, and apply for a driver's license.

The document shows that obtaining the ID Card did not significantly influence the overall participation of Venezuelans in the labor market or their employment status. However, obtaining the ID Card appears to have improved the quality of employment conditions. Specifically, obtaining the ID Card is associated with an increased likelihood of securing employment under written contracts and being employed in the formal labor market. Notably, obtaining the PNV ID Card does not seem to mitigate the likelihood of being overqualified for one's job, contribute to an increase in salary, or reduce the likelihood of working extended hours. Nevertheless, obtaining the PNV ID Card does not appear to alleviate the likelihood of being overqualified for one's job, contribute to an increase in salary, or reduce the likelihood of working extended hours.

In future research, we will investigate whether the improved employment conditions are the result of better conditions in the initial job or working in a different job. If Venezuelans are changing jobs because of the PNV,

we will investigate if their new jobs are better aligned with their education. However, we recognize that the lack of a positive effect on the probability of being overqualified may be related to other bottlenecks, such as the lack of recognition of foreign tertiary education in the Dominican Republic.

7   Tables

	Panel Sample	With ID card	Without ID card
Age	35.65	35.55	35.72
Single	0.64	0.68	0.61
Secondary or less	0.29	0.28	0.29
Technical	0.19	0.19	0.19
Some college or more	0.53	0.53	0.52
Active	0.98	0.99	0.98
Employed	0.96	0.97	0.95
Verbal contract	0.19	0.20	0.17
Written contract	0.21	0.22	0.21
Social Security	0.19	0.19	0.19
Overqualified	0.13	0.12	0.13
Long hours	0.53	0.52	0.53
Salary log	9.78	9.84	9.74
Observations	931	395	536

8   Figures

Figure 1: Location of respondents in the Dominican Republic

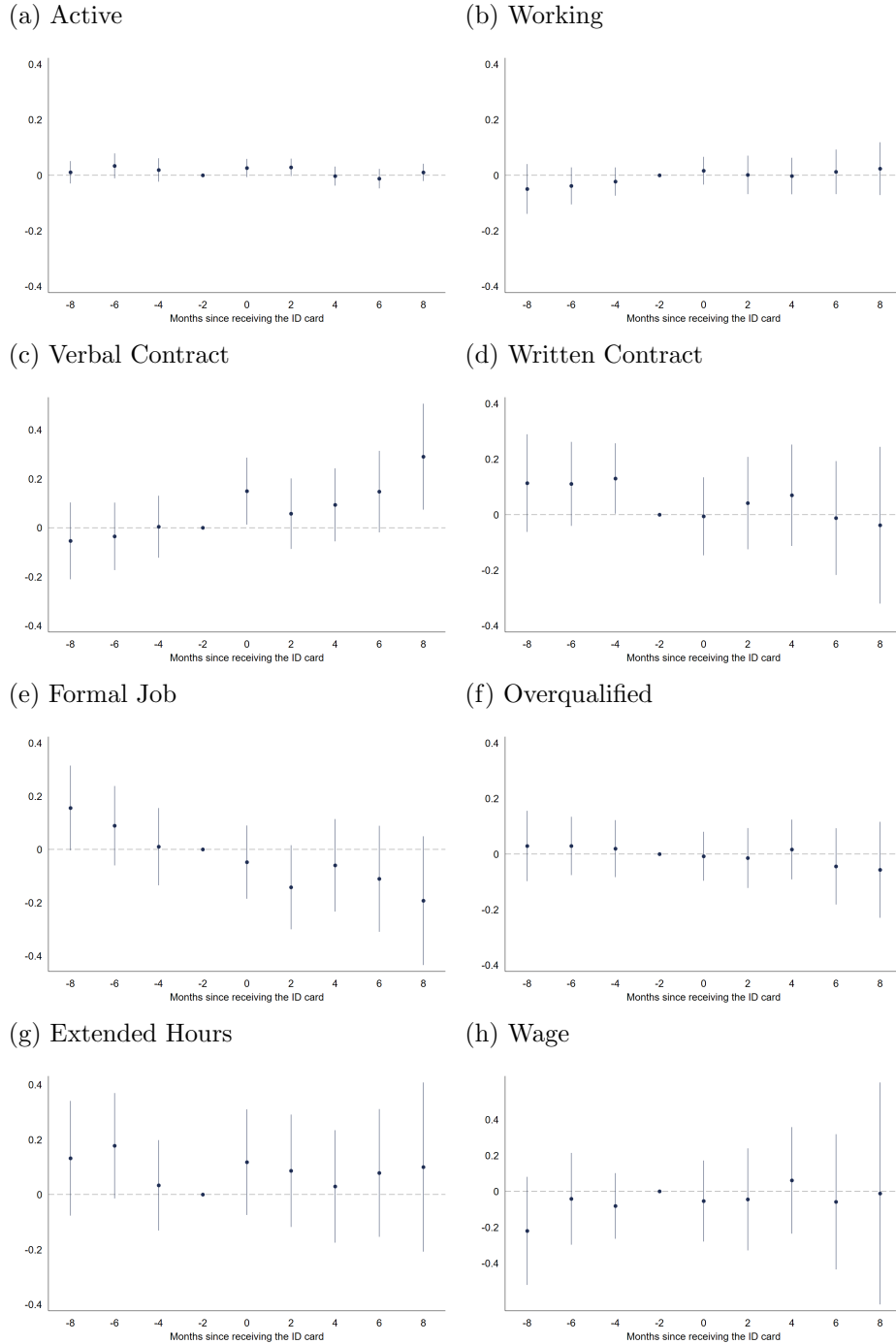|	
	No data
	<10%
	10%
	30%
	40%
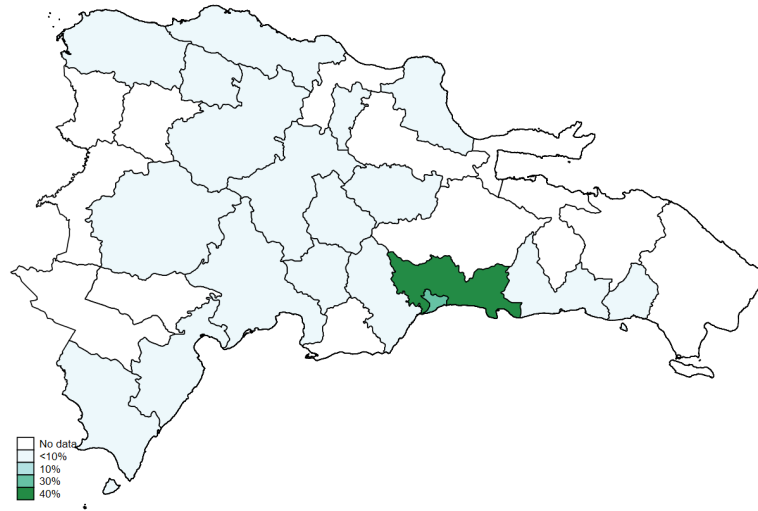
Notes: .

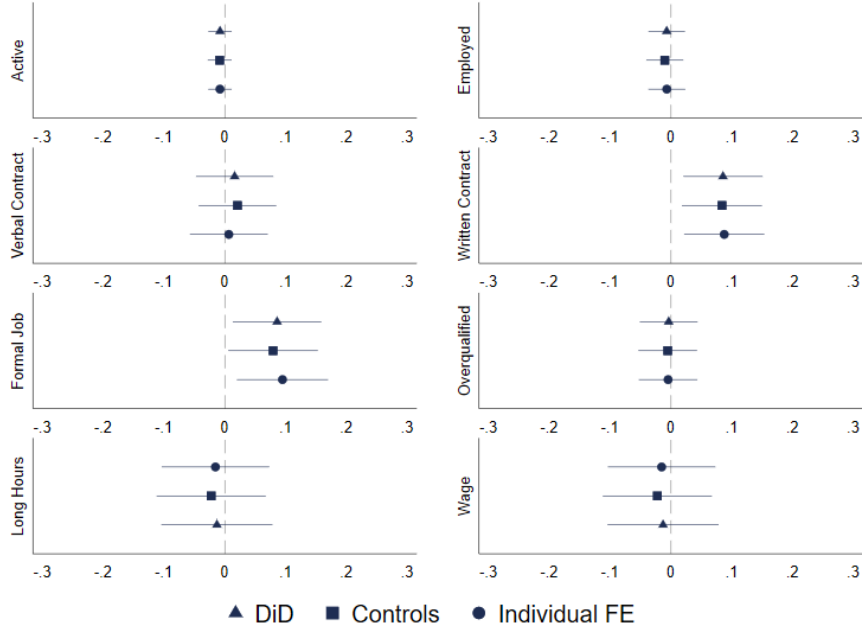Figure 2: Impact of the ID Card on Employment Outcomes
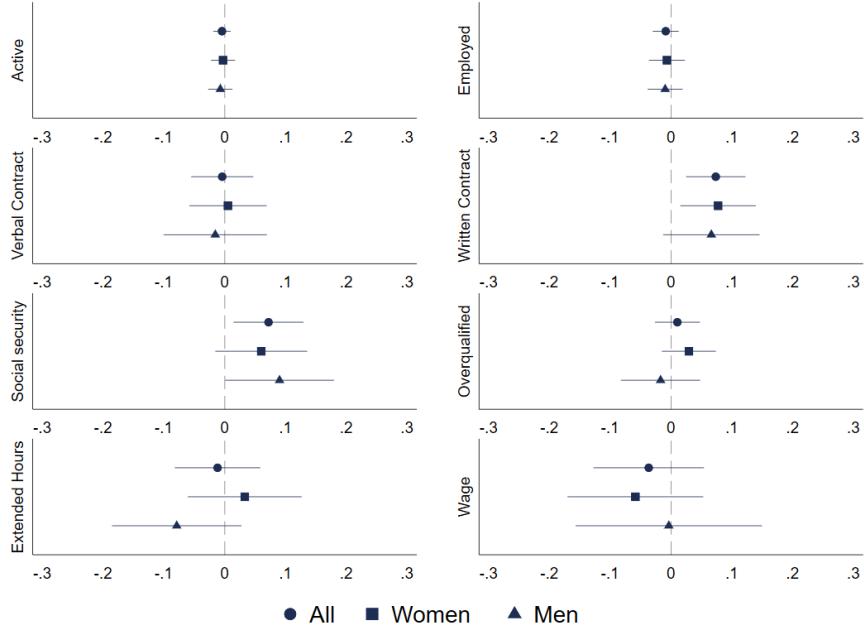
Notes: This figure presents the difference in differences estimates based on equation (1). All regressions include individual fixed effects and round fixed effects. The standard errors are clustered at the individual level. We construct confidence intervals with a significance level of 95%.

Figure 3: Event Study - Impact of the ID Card on Employment Outcomes

(a) Active

(b) Working

(c) Verbal Contract

(d) Written Contract

(e) Formal Job

(f) Overqualified

(g) Extended Hours

(h) Wage

Notes: This figure presents the event-study-type estimates replacing the interaction between having the ID Card and Post with dichotomous variables based on the number of months since the respondent had received the ID Card in equation (1). All regressions include individual fixed effects and round fixed effects. The standard errors are clustered at the individual level. We construct confidence intervals with a significance level of 95%.

Figure 4: Difference in Difference versus Two-Way Fixed Effects

Notes: This figure presents the difference in differences estimates based on equation (1), including only the first and third rounds of the survey. The figure reports the estimates of a simple pre-post difference-in-difference regression, a regression that also includes baseline controls, and a regression that includes individual fixed effects. The standard errors are clustered at the individual level. We construct confidence intervals with a significance level of 95%.

Figure 5: Difference in Difference Underlying Comparisons
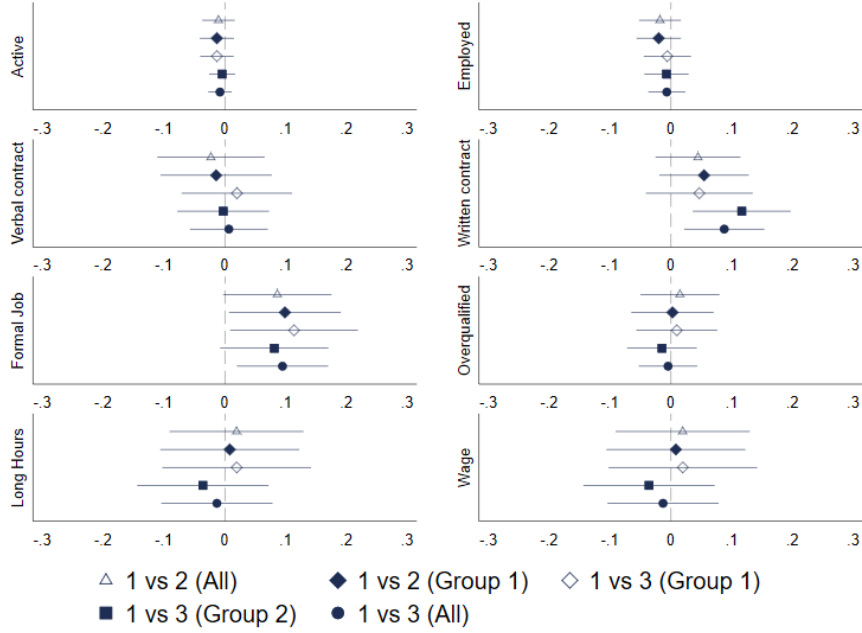
Notes: This figure presents the difference in differences estimates based on equation (1). The figure reports the estimates of multiple regressions, including the survey rounds included and the treated group (see text for a detailed explanation of the estimates). All regressions include individual fixed effects and round fixed effects. The standard errors are clustered at the individual level. We construct confidence intervals with a significance level of 95%.

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Appendices

A   Additional results

|	(1)	
	Attrition	
Age	-0.003*	(0.009)
Mujer	0.015	(0.573)
Single	0.056	(0.061)
Technical	0.004	(0.926)
Some college or more	-0.046	(0.134)
Applied for visa	-0.061	(0.051)
total_income	0.000	(0.366)
Two members	0.026	(0.451)
Three members +	0.031	(0.375)
ipl	-0.173	(0.146)
N	1,163	

p-values in parentheses

* $p < 0.05$

Table A1: Factors associated with normalizing status

	(1) Extension	(2) Visa	(3) ID Card
Demographic characteristics			
Age	-0.000	-0.000	-0.000
	(0.001)	(0.002)	(0.002)
Women	-0.001	-0.001	-0.001
	(0.023)	(0.034)	(0.034)
Single	0.020	0.067	0.067
	(0.024)	(0.034)	(0.034)
Education in Venezuela			
Technical	-0.038	0.013	0.013
	(0.034)	(0.049)	(0.049)
Some college or more	-0.007	0.018	0.018
	(0.025)	(0.038)	(0.038)
Assets in Venezuela	-0.008	-0.005	-0.005
	(0.010)	(0.014)	(0.014)
Obs	910	910	910
$Mean$	x	x	x
$F-statistic$	0.531	0.739	0.739
$Prob > F$	0.785	0.618	0.618

Standard errors in parentheses

[*] $p < 0.05$

Figure B1: Recruitment by Wave
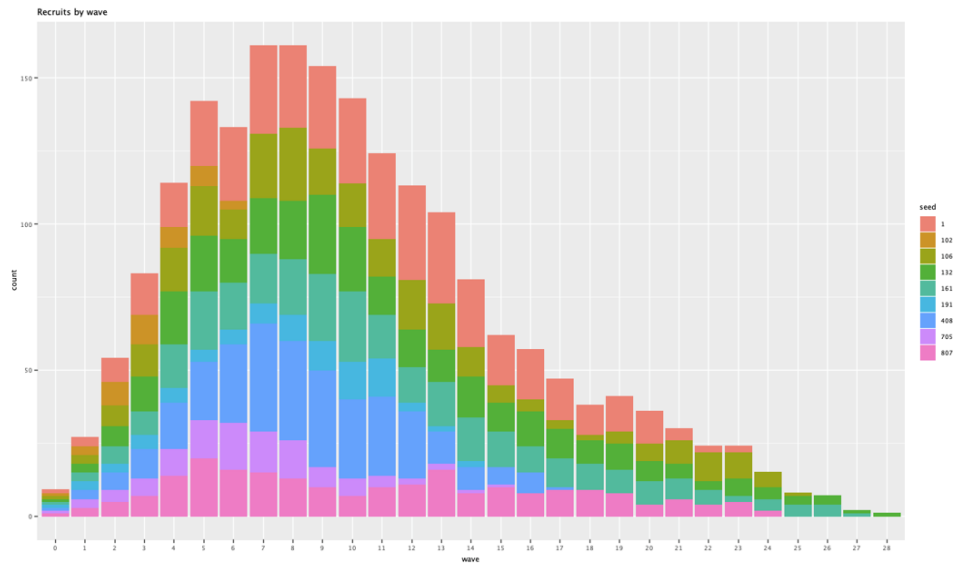
B   Respondent Driven Sampling

To be completed

Figure B2: Recruitment by Seed

seed
• 1   • 1028   • 1067   • 1323   • 1619   • 1911   • 408   • 705   • 807

31
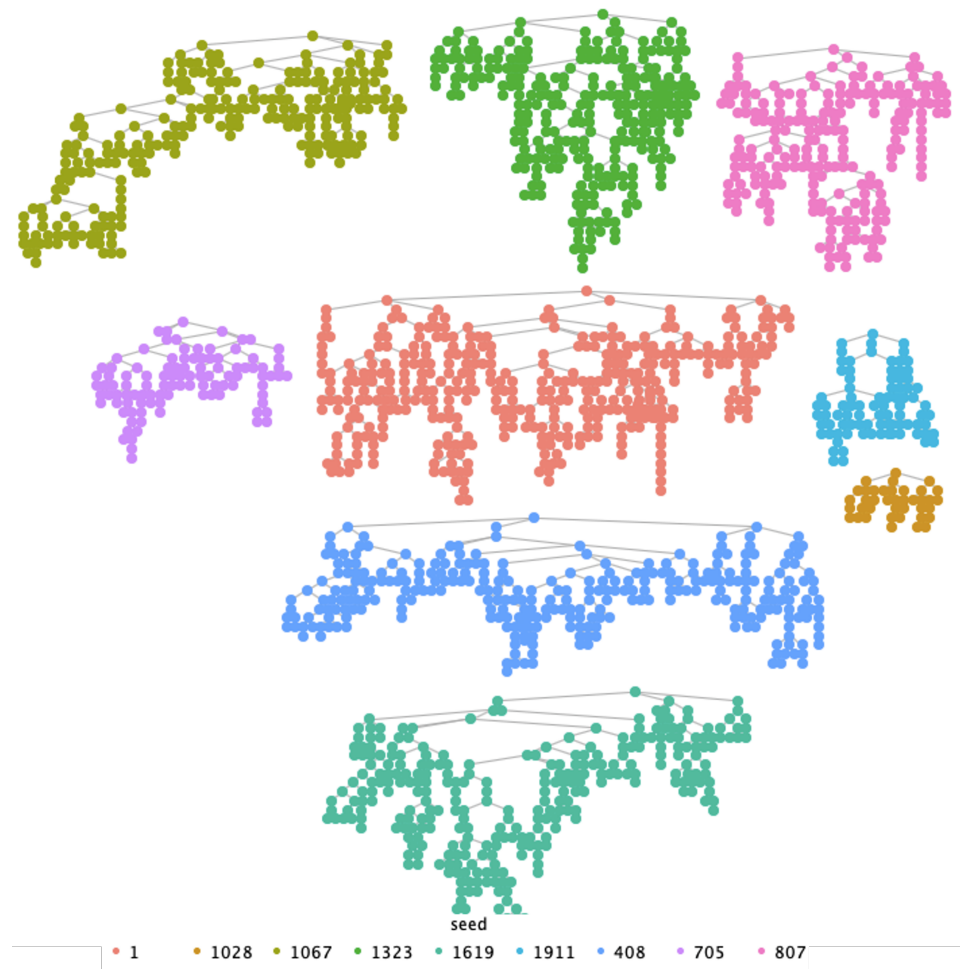
C   Program Description

Figure C1: Progress in the regularization process
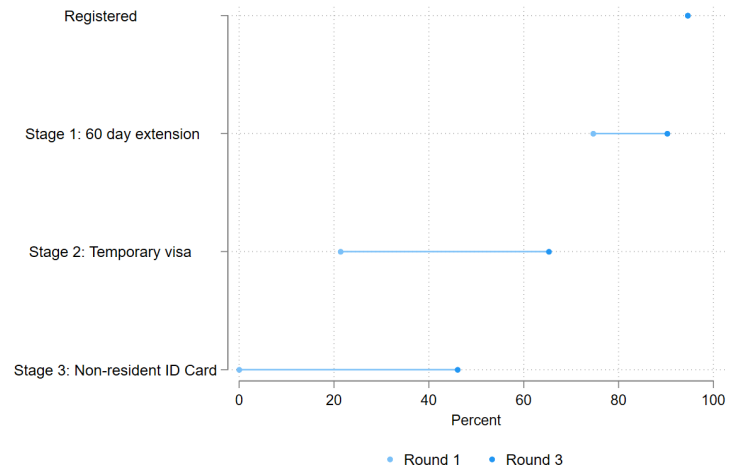
Note: The estimates for each stage use the registered population as the denominator.

Figure C2: Issuing of Visa and ID Card