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Abstract[*]

This paper examines the impact of an internship program in Argentina (Programa Primer Paso; PPP) on the formal employment trajectories of people with disabilities (PwD). Using administrative data from 2002 to 2023 and a staggered difference-in-differences design, we estimate that program participation increases formal employment and improves employment stability over time. The average probability of being formally employed rises by about 8 percentage points within three years after treatment, with the effect growing over time. The program also increases sustained employment—measured as at least 6 or 12 months of formal work per year—and total months in formal jobs. About three-quarters of the observed employment gains arise from jobs at firms other than the initial internship host, indicating broad integration into the formal labor market, not just formalization of preexisting ties. These results are robust to alternative specifications and pre-trend tests. The effects are larger for individuals residing in the capital city and those placed in medium-sized and large firms, and smaller for individuals with mental disabilities. No clear differences are found by age or gender. We find no evidence of changes in participating firms' hiring behavior toward PwD after hosting a PPP intern with a disability. These findings suggest that internship programs can reduce labor market gaps for PwD in developing countries, with patterns consistent with three mechanisms: alleviating informational frictions, raising expectations about employment prospects, and acquiring transferable skills.

JEL Classification: J14, J48, I38, O17
Keywords: disability, labor markets, internship programs, active labor market policies, employment formality

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1 Introduction

People with disabilities (PwD) face significant barriers in the labor market worldwide, resulting in lower participation rates, higher unemployment, and greater informality compared to people without disabilities. In Latin America and the Caribbean (LAC), PwD experience approximately 20 percentage points lower employment rates and 10 percentage points higher informality rates than the general population (Berlinski et al., 2021). With approximately 14% of the population in LAC currently living with some form of disability, addressing these labor market gaps represents a significant economic and social challenge.

Rigorous evidence on active labor market policies (ALMPs) that improve employment outcomes for PwD remains scarce, especially in developing countries (Duryea et al., 2023a; Rucci, 2025b). Internship programs, which combine on-the-job training with work experience, are a particularly underexplored intervention for this group.

We analyze the First Step Program (Programa Primer Paso; PPP), a long-standing large-scale internship program in the province of Córdoba, Argentina, with quotas for PwD since 2012. The program provides beneficiaries with 12-month formal employment in registered firms in the private sector. We combine administrative records from the program with formal employment data from Argentina's social security system (Sistema Integrado Previsional Argentino; SIPA) to create a comprehensive dataset spanning 2002 to 2023. This allows us to track individual employment trajectories both before and long after program participation. We measure the program's impact on the labor market trajectories of beneficiaries, specifically the likelihood of securing formal employment, and examine the underlying mechanisms.

Our empirical strategy exploits variation in the timing of program entry and leverages recent advances in difference-in-differences (DiD) estimation under staggered treatment adoption. We rely on the estimator proposed by Callaway and Sant'Anna (2021), which addresses the limitations of traditional two-way fixed effects in the presence of treatment-effect heterogeneity. We use not-yet-treated PwD that apply to the program as a comparison group and conduct robustness checks using other control groups to validate our identification.

Our results show that participation in the PPP substantially improves the employment trajectories of PwD. The probability of being formally employed for at least one month in a given year increases on average by 8 percentage points in the post-treatment period, reaching nearly 11 points by year three. The program also fosters sustained employment: The probability of working at least six months in a year increases by 6.6 points, while the chance of twelve consecutive months of employment rises by 4.2 points. In addition, participation boosts total months in a formal job in a calendar year by an average of 0.7 months, with effects accumulating over time. These gains are particularly meaningful given the low baseline employment levels among program applicants and the absence of restrictions on re-enrollment in the program. These improvements are not simply the

result of continued employment with the participating firm: At least three-quarters of the gains come from jobs at other firms, underscoring broader integration into the formal labor market. These results are robust to the use of the Borusyak et al. (2024) estimator, a sensitivity analysis following the method proposed by Rambachan and Roth (2023), and alternative control-group definitions.

We contribute to the literature in four main ways. First, we provide novel causal evidence from a developing country on the medium-term effects of internship programs for PwD—a population typically underrepresented in ALMP evaluations. Most studies focus on high-income countries and reach mixed results, often showing limited or short-lived impacts. In low- and middle-income countries, where formal jobs are scarce and public budgets are constrained, identifying effective tools to integrate PwD into the formal sector is even more critical. Yet empirical evidence from these settings remains scarce, and few studies have examined impacts beyond the short term. Our study helps fill this gap and shows that participation in the PPP leads to a sustained and growing increase in formal employment.

Second, we examine heterogeneous effects across gender, age, type of disability, firm size, and place of residence. We find larger impacts for individuals residing in the capital city (also called Córdoba). Effects are smaller for those placed in small firms and for individuals with mental disabilities. We find no statistically significant differences by age, and observed gender differences in absolute terms over the medium term should be interpreted in light of baseline differences in formal employment levels.

Third, we investigate the mechanisms and dynamics behind the results. We show that many beneficiaries participate in the PPP more than once. This extended participation, instead of discouraging the search for unsubsidized jobs (as one might expect), may foster integration into the labor market, giving beneficiaries the time needed—probably more than 12 months—to transition from subsidized internships to unsubsidized formal employment. As noted, we find that formal employment gains are primarily concentrated in firms other than the internship providers, indicating broader improvements in employability and access to the labor market. This finding is consistent with the idea that the program alleviates the barriers workers face, such as informational frictions (including expectations about employment prospects and the benefits of formal work), and facilitates acquisition of transferable skills.

Fourth, we examine the effects on participating firms. The evidence on firm behavior is less conclusive: On average, we do not find significant changes in the share of firms that hire at least one PwD after hosting a PPP intern with a disability. (We do observe a statistically significant but modest impact on small firms.) This finding should not be interpreted as a shortcoming of the program: While programs of this kind could help shift employer perceptions and reduce stigma, thereby expanding access to formal jobs for other PwD, the primary objective of the PPP is to improve the employment prospects of workers rather than altering firms' hiring practices. Our findings suggest that if the program aims to influence firm behavior, its design needs to incorporate this objective

explicitly. More broadly, our paper highlights the need for further research on how ALMPs can shape employer behavior and reduce PwD's barriers in the labor market.

Our study not only contributes to the literature but provides actionable recommendations for policy makers to improve the design and implementation of internship programs tailored to PwD.

The rest of the paper is organized as follows. Section 2 reviews the relevant literature on ALMPs and labor market integration of PwD. Section 3 describes the institutional context of the PPP and the features of its disability component. Section 4 presents the data, and Section 5 outlines the empirical strategy. Section 6 reports the main results, while Section 7 presents robustness checks and discusses potential mechanisms. Section 8 concludes.

2 Related Literature

Our paper contributes to the literature on ALMPs for PwD by analyzing the causal effects of an internship program—a type of intervention that has received limited attention in the literature, as existing studies have focused primarily on other types of ALMPs. In addition, we provide evidence from a developing country context, which remains underrepresented in this literature. Internships differ from other employment programs for PwD, such as supported employment or customized employment, in that they emphasize time-limited, subsidized work experience in regular firms operating in the open labor market, combined with on-the-job learning, rather than ongoing individualized support or tailored job design.

This section reviews evidence from other ALMPs, highlighting their impacts and contrasting their design features with those of the PPP. This comparison helps clarify which mechanisms identified in prior ALMP studies are likely to apply in the context of the PPP. It also sheds light on why an internship-based intervention may generate different effects from those documented previously.

Previous research has primarily focused on developed countries, with a concentration on Europe and North America. These studies have evaluated various interventions, including quota systems (Krekó and Telegdy, 2025; Mori and Sakamoto, 2018; Wuellrich, 2010; Lalive et al., 2013; Malo and Pagán, 2014; Barnay et al., 2019), wage subsidies in general (Angelov and Eliason, 2018; Baert, 2016; Gupta et al., 2015; Deuchert and Kauer, 2017; Jiménez-Martín et al., 2019; Gupta and Larsen, 2008), short-term wage subsidies conditional on worksite accommodation (Aizawa et al., 2026), vocational rehabilitation (Dean and Dolan, 1991; Yin et al., 2023), supported employment programs (Kinoshita et al., 2013; Dieterich et al., 2017; Fogelgren et al., 2023), and customized employment (Domenella and Bentolila, 2025). The literature on labor market programs in developing countries has expanded substantially in recent years. However, to the best of our knowledge, with the exception of the literature on disability quota systems (Bosch et al., 2021; de Araújo et al., 2022; Szerman, 2022; De Souza, 2025; Duryea et al., 2023b, 2024;

Berlinski and Gagete-Miranda, 2025) and vocational training (Takasaki, 2024), studies evaluating ALMPs in developing countries rarely examine outcomes for PwD in particular. This leaves a substantial knowledge gap regarding which policy approaches can improve labor market prospects for PwD in low- and middle-income settings. Additionally, to our knowledge, the economics literature has not examined the effects of internship programs targeted at PwD.[1]

The research on disability quota systems has yielded divergent results. While several studies document moderate positive employment effects (Lalive et al., 2013; Malo and Pagán, 2014; Mori and Sakamoto, 2018; Duryea et al., 2024), others find null or even negative impacts (Wagner et al., 2001; Verick, 2004; Barnay et al., 2019). Even when positive effects are observed, they may partly reflect reclassification of existing employees rather than genuine job creation (Lalive et al., 2013; Duryea et al., 2024). Another strand of research highlights that compliance incentives can shape the effectiveness of quotas. Higher fines, more inspections, and informational nudges have been shown to improve compliance and strengthen employment effects (Wuellrich, 2010; Bosch et al., 2021; Szerman, 2022; De Souza, 2025; Duryea et al., 2023b; Krekó and Telegdy, 2025). Nonetheless, even strong financial incentives may fall short of their goals if other frictions remain unaddressed, such as weak matches between workers and firms (Krekó and Telegdy, 2025).

The literature on quotas underscores that the effectiveness of employment policies depends critically on the incentive environment they shape. In this respect, an internship program offers a distinct advantage over quota-based schemes. Because it is not designed to enforce numerical targets, it does not create strong incentives for firms to reclassify existing workers or to displace non-PwD employees. Moreover, matches between firms and beneficiaries are formed in a decentralized and voluntary manner prior to the application process, as we describe in Section 3, reducing the risk of inefficient or forced placements—one of the key concerns highlighted in the literature. This higher-quality matching may help explain the PPP's notably high internship completion rate.

Regarding wage-subsidy programs, research on developed countries has generally not found the expected positive effects on the employment outcomes of PwD. At least two explanations have been proposed. First, disclosing a disability may create a negative signaling effect, whereby employers interpret disability status as an indicator of lower productivity and higher costs associated with potential workplace accommodations. Correspondence studies show reduced interview callback rates for applicants who reveal a disability (Deuchert and Kauer, 2017; Baert, 2016; l'Horty et al., 2022), with no improvement when wage subsidies are mentioned (Baert, 2016; l'Horty et al., 2022). This mechanism might not be a concern in the context of the PPP. One reason is that the program is not restricted to PwD: Non-PwD applicants can also participate—although they

[1]There is, however, a related line of research in the medical and rehabilitation sciences evaluating supported or transitional employment models for youth and adults with disabilities (Wehman et al., 2014, 2017, 2020; Ligon and McKelvey, 2025).

face a lottery—so employers do not infer disability status from participation alone. Also, firms know in advance when a candidate has a disability and voluntarily choose to work with that individual, limiting the scope for negative signaling or unintended inference at the matching stage.

A second reason why wage-subsidy programs often fail to generate large effects is that participants may remain in subsidized positions rather than transitioning to unsubsidized formal employment. This can occur when programs allow subsidies to be granted or extended for long periods, potentially creating disincentives for participants to search for unsubsidized jobs (Angelov and Eliason, 2018). In the case of the PPP, individuals are allowed to apply for subsequent internships, which—given this evidence on wage-subsidy programs—raises a concern about whether extended participation may hinder the transition to unsubsidized formal employment. However, because firms are under no obligation to retain interns after the program ends, they face no costs of terminating the relationship once the internship period concludes. This substantially reduces the firms' incentive to keep participants in subsidized positions for extended periods, attenuating a key mechanism underlying the limited effectiveness of wage-subsidy programs.

In other contexts, when subsidies include clauses that allow firms to employ subsidized workers only for a limited period, employers may become less willing to offer permanent contracts. Additionally, restrictions on terminating open-ended employment relationships can make firms favor temporary contracts to avoid long-term commitments, ultimately leading to more precarious employment for PwD rather than the stable jobs these programs are intended to promote (Jiménez-Martín et al., 2019). Similar concerns could arise in the context of the PPP; however, they are likely to be weaker, given that the number of subsidized positions is capped each year by a quota.

Regarding the PPP itself, previous research has shown positive labor market effects for the general youth population. Berniell and de la Mata (2017) study the employment outcomes of the general track of the program's 2012 edition, targeting people between 16 and 25 years old. This version differs from the disability track in that excess demand led to a lottery-based selection of beneficiaries. The authors exploit this random assignment to estimate the program's impact and find that beneficiaries are 5.1 percentage points more likely than non-beneficiaries to have a registered job one year after program completion. These positive effects persist in the medium term, with a 4.6 percentage point difference observed 4.5 years later. They also find that the effect is stronger for women (5.9 pp. one year after the program) than for men (4.2 pp.) and that impacts are more pronounced among individuals with lower levels of education and those with higher cognitive skills. All these differences across subpopulations persist in the medium term. Additionally, they provide evidence that the main mechanism behind these results is a reduction in informational barriers rather than an increase in skills formation. Berniell and de la Mata (2017) find no aggregate displacement effects of the PPP, a general concern in the ALMP literature (Crépon et al., 2013; Marinescu, 2017; Abebe et al., 2021).

3 Institutional Framework

3.1 First Step Program (PPP)

The PPP is a large-scale internship initiative administered by the Córdoba provincial government that began in 1999, with annual application cycles (interrupted in 2008–11, 2020, and 2022). The program offers participants 12-month part-time paid placements in formally registered private firms. There are no restrictions on the type of occupation or activities that interns must do in the firms. The PPP includes a quota for PwD and has allocated 6,379 internship positions to PwD from 2012 to 2018.[2] Initially fully government subsidized, it transitioned in 2016 to a cost-sharing arrangement in which firms contribute between one- and two-thirds of costs, depending on their size. The benefit amount that beneficiaries receive is equivalent to 90% of the hourly minimum wage. Participating firms are not required to make any workplace adjustments and have full discretion over whether to retain interns as employees once the program ends. (They face no costs or obligations if they choose not to continue the employment relationship.)

Eligibility Criteria

The eligibility requirements for workers and firms are established by Provincial Law 10,236. Regarding workers, eligible candidates for the general-population track must not have been employed in the six months prior to the application, must have a legal address in the province of Córdoba, and must be within the 16–25 age group. For the disability track, the age limits are 16–49 years, and the program allows for repeated participation. The lack-of-employment requirement is verified through administrative records and thus only conditions on the lack of *formal* employment. Additionally, while candidates on the general-population track cannot be beneficiaries of other national or local employment or social programs, with the sole exception of the national conditional cash transfer program, Asignación Universal por Hijo, these restrictions do not apply to the disability track: Those participants can be beneficiaries of benefits established under the national social protection system such as disability pensions. This aspect of the program's design is particularly relevant, as the literature shows that the structure of incentives surrounding social security benefits for PwD can discourage labor supply among this population (Kostøl and Mogstad, 2014; Maestas et al., 2013; Levere et al., 2025).

Regarding firms, eligibility requires them to be formally registered—that is, they must have a current business register—and to have at least one formally registered employee. Additionally, internship applicants cannot be related to the owner of the firm. All these requirements are cross-checked by program administrators using administrative data.

[2] This figure represents approximately 4.6% of all benefits granted by the program, which totaled around 140,000.

Application Process

To apply to the PPP, applicants need the endorsement of a firm that is willing to hire them as a PPP intern. The endorsement requirement is intended to show, ex ante, the interest of both parties in participating. In other words, applications reflect already-formed matches between a candidate and a firm. Before a stipulated deadline (usually around the end of May), applicants must submit an enrollment form that collects their personal data and data on the firm they intend to work for (see Figure A.1). In early iterations of the program and for paper submissions, the form also carried a signature from a firm representative; for online submissions, firms must verify their consent by reviewing and accepting the application form presented by candidates.

Assignment Process for People with Disabilities

The law establishes a minimum annual program capacity of at least 15,000 slots and sets a target quota for PwD, requiring that at least 5% of all internship positions each year be reserved for PwD or organ-transplant candidates. When applications exceed the number of available slots, beneficiaries are selected through a public lottery. In practice, the PwD quota is not binding: During our study period, every eligible applicant who submitted a valid application received a slot.[3]

3.2 People with Disability, Employment, Social Protection, and Active Labor Market Policies in Argentina and the Province of Córdoba

Prevalence of Disabilities, Demographics, and Socioeconomic Profile and Employment Outcomes of People with Disabilities

According to census data, PwD account for 8.3% of the population aged 16–49 nationally and 7.5% in the province of Córdoba (see Table A.2 in the Appendix).[4] Disability is predominantly visual and motor. Visual impairment is the most frequently reported permanent difficulty, affecting over half of PwD both nationally and in Córdoba (52% and 58%, respectively), followed by motor difficulties (16% and 13%). Cognitive (8% and 7%) and hearing difficulties (6% and 6%) are less prevalent (see Table A.3 in the Appendix). Fully 13% of PwD report two types of disabilities and 5% report three or

[3]The PPP does not appear to offer any specific incentives for firms to hire PwD. Stipends and contractual terms were the same for all interns, and although the program limits the number of beneficiaries per firm, PwD were exempt from this cap. Moreover, since the program targets private firms and there are no disability hiring quotas in Argentina's private sector, it seems unlikely that firms used the PPP to meet any formal obligations. As discussed in the next section, the only quota currently in effect applies to public sector employment.

[4]There are few data sources in Argentina that allow for a comprehensive characterization of PwD (Rucci, 2025a). The 2010 Population Census was the first to include a standardized set of questions to identify this population, based on the Washington Group recommendations (UN, 2011). These questions are aligned with those used in the censuses of Brazil, Paraguay, and Uruguay. The 2022 census did not report data for this population. The most recent official source is the National Survey of People with Disabilities (INDEC, 2018), which does not allow for geographic disaggregation at the provincial level.

more. These patterns are largely preserved within the PPP target population, defined as individuals in informal employment, self-employment, unemployment, or family work.[5]

PwD in Córdoba differ systematically from nondisabled individuals along several socioeconomic dimensions (see Table A.4). They are slightly more likely to be women (54% vs. 51%) and heads of household (38% vs. 33%), and they exhibit substantially lower educational attainment: 33% report primary education as their highest level attained (21% among the nondisabled), while only 10% have completed tertiary or university education (14% among the nondisabled). School attendance is also lower (16% vs. 21%), and a small but non-negligible share attended special education institutions (4%). PwD are more likely to reside in Córdoba's capital city (55% vs. 49%).

Within the PPP target population, these disparities are more pronounced. Half are women, 43% are heads of household, and 71% have children. Fully 36% report primary education as their highest level attained.

Labor market attachment is markedly weaker among PwD (see Table A.5). They are more likely to be inactive (31% vs. 24%) and face slightly higher unemployment (6% vs. 5%).[6] Conditional on employment, informality is substantially higher among PwD: They are more likely to be informal employees (54% vs. 37%), self-employed (23% vs. 18%), and family workers (3.2% vs. 2.8%).[7]

Employment among PwD is also more concentrated in small firms. Among employed individuals, 55% of PwD work in firms with one to five employees, compared to 50% among nondisabled workers, a pattern that holds even within the informal sector. By contrast, public sector employment shares are nearly identical (23% among PwD and 22% among nondisabled salaried workers), and sectoral employment distributions are broadly similar across groups.

Certification of Disabilities

In Argentina, disability status is officially recognized through a certificate known as the CUD (Certificado Único de Discapacidad). The CUD is an official, public, and free document that certifies a person's disability condition nationwide. The CUD was created in 2001 as a unified system, replacing provincial certificates. The implementation of the CUD was carried out progressively between 2009 and 2015, during which time the country's various jurisdictions adopted the regulation and began issuing the certificate through Interdisciplinary Evaluation Boards. Renewal frequency varies by case. Permanent disabilities may require less frequent updates or, in some cases, may not need regular

[5]The PPP also requires individuals to hold a valid disability certificate, which, as shown in the following subsection, only covers about half of the population with disabilities. This information is not available in the census.

[6]The census is the only source that allows for direct comparisons of employment outcomes for people with and without disabilities in Argentina during the 2010s.

[7]According to the National Survey of People with Disabilities (INDEC, 2018), which is better suited to capture disability status, the rate of salaried employment (formal or informal) among individuals aged 15–39 is 22%. Conditional on holding a disability certificate (for greater comparability to the PPP target population), the corresponding rate is 12%.

renewal at all. Temporary or progressive disabilities require more frequent updates to assess changes in the individual's condition. The board determines the need for and timing of the renewal in each case. The application process for the disability certificate entails administrative costs that can reduce take-up of certification and access to social security benefits and related programs for PwD, as has been shown in other contexts (Deshpande and Li, 2019).

According to data from the Survey on the Profile of Persons with Disabilities of 2018, carried out by the National Statistics Agency (Instituto Nacional de Estadística y Censos; INDEC) and representative of the population living in cities with 5,000 inhabitants or more, only half of the population with disabilities holds a CUD that is currently valid. The likelihood of holding a CUD is positively associated with higher educational attainment, being single, having certain health conditions (such as a disease or syndrome, a history of accidents, or complications during the mother's pregnancy or delivery), the number of functional difficulties, and the type of difficulty (whether motor, auditory, or cognitive). Holding a CUD is negatively associated with age.

Social Protection Policies at the National Level

Obtaining a CUD allows individuals to enjoy rights and access benefits established under National Law 22,431 of 1981 (the first law that established a comprehensive protection system for PwD to ensure equal opportunities and nondiscrimination by establishing a legal framework that protects the rights of PwD) and Law 24,901 of 1997 (aimed to ensure universal and free access to a set of basic services for medical care, rehabilitation, and technical support). Together, these laws include full coverage of disability-related health services (such as rehabilitation, assistive devices, and therapies), free public transportation nationwide, access to noncontributory pensions and family allowances, tax exemptions, and participation in programs that promote education, employment, and social inclusion. The type and amount of benefits depend on the nature and degree of disability. Notably, access to noncontributory pensions requires a disability degree of at least 66%.

Table A.4 reports access to key social benefits—health coverage and contributory and noncontributory pensions—among individuals aged 16 to 49 in the province of Córdoba, by disability status. PwD are more likely to lack health coverage (43% vs. 37%), and this gap is similar within the PPP target population, of which 62% report no coverage. Pension and retirement benefit receipt is substantially higher among PwD (13%) than among nondisabled individuals (2%), while in the PPP-eligible group the share is 9%. Noncontributory pensions constitute the dominant form of support: Among PwD who receive benefits, 72% in the overall population and 75% in the PPP target group rely exclusively on this type of pension, compared with 62% among nondisabled beneficiaries.

Employment Promotion Programs for People with Disabilities at the National Level

Employment programs for PwD are limited in number and face significant challenges related to scale and sustainability. Although the legal framework is robust (Laws 22,431 and 24,901), the implementation of such programs at the national level has been intermittent and lacks systematic coordination. The most clearly defined employment support policy for PwD in Argentina is the provision established by Law 22,431, which mandates that at least 4% of public sector positions be reserved for PwD. However, in practice, most public institutions fall short of meeting this target, and compliance remains well below the legal threshold.[8] At the provincial level, Córdoba has adopted a more ambitious standard, setting a quota of 5% for public sector employment.

Fiscal Incentives to Hire People with Disabilities at the National Level

Argentine legislation includes fiscal incentives for companies that hire PwD, such as income tax deductions and reductions in employer contributions. However, in practice, the impact of these incentives has been limited. Surveys indicate that only a very small percentage of companies that employ PwD report doing so because of tax benefits.

4 Data

4.1 Data Sources

Our analysis relies on administrative data from multiple sources. First, we use Córdoba's employment programs database, which contains administrative records of all application forms submitted to Córdoba's government employment programs from 2012 to 2018.[9] It includes comprehensive information from the application forms, such as program identification, individual ID, age, gender, address, educational attainment, marital status, parenthood, name and ID of the firm proposed for the internship, firm address, size, type of activity, and dates when the internship started and ended.

Córdoba's employment programs database contains information about the type of disability in all applications from PwD: motor, mental, sensory, psychological, and "other."[10] When filling out the form, PwD must self-report their disability and can select more than one. In this database, we observe around 4,100 recipients of the internship who together received about 6,400 internship spells.

Second, we use employer-employee administrative registries covering 2002–23.[11] The

[8] See, for example, this official report from 2022.

[9] The dataset covers programs up to 2023. However, the internship program under analysis was not offered in 2019, 2020, and 2022, and the 2021 edition had several design and implementation differences due to the COVID-19 pandemic. For the 2023 edition, we do not have enough post-treatment periods.

[10] For the heterogeneity analysis, we group together psychological disabilities with "other."

[11] COVID-19 overlaps with our study period. Therefore, part of the estimated effects may reflect the relative resilience of formal employment during this exceptional shock. As a result, the magnitude of our estimates may not fully generalize to less turbulent periods.

Observatory of Employment and Firm Dynamics (Observatorio de Empleo y Dinámica Empresarial; OEDE), a government agency within the Department of Labor, compiles and maintains a countrywide matched employer-employee dataset. It contains monthly information for all registered employees on individual ID, firm ID, monthly wage, full- or part-time employment status, firm sector, firm address, and employee occupation. This dataset allows us to obtain long-term formal employment trajectories and wages for individuals and to follow individual firms over time, including those that have employed PwD.

4.2 Descriptive Statistics

Table 1 presents all PwD applicants to employment programs in Córdoba between 2012 and 2018. In the full period, there were 8,724 applications in total. As described in Section 3, all applicants with a disability who presented a valid form were assigned to the program. However, only 6,379 applications resulted in an internship. The remaining 2,345 were rejected on the grounds of being invalid. Reasons for rejection include missing critical candidate or firm information and not complying with eligibility criteria. In total, the granted applications correspond to 4,068 individuals because many beneficiaries participated in multiple editions.

Table 1: PwD Applicants to Employment Programs (2012–18)

	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Pooled data**
Applicants	374	853	1,388	1,263	1,339	1,618	1,889	8,724
Beneficiaries	283	700	930	841	896	1,227	1,502	6,379
Rejected	91	153	458	422	443	391	387	2,345
Beneficiaries for the 1st time	283	591	691	539	613	661	690	4,068
Type of disability								
Only motor	0.187	0.190	0.137	0.134	0.115	0.143	0.138	0.143
Only mental	0.314	0.341	0.371	0.473	0.336	0.370	0.340	0.366
Only sensory	0.127	0.124	0.094	0.112	0.077	0.112	0.121	0.108
Only other	0.297	0.247	0.325	0.216	0.369	0.252	0.310	0.290
More than 1 disability	0.074	0.097	0.074	0.064	0.103	0.123	0.090	0.092

Note: Own elaboration based on Córdoba's employment programs database.

Table 2 shows demographic characteristics of program beneficiaries with a disability (column 1) relative to program beneficiaries without disabilities (column 2).

Among PwD program beneficiaries, 42% are female, the average age is 25, most are single (96%), and 7% have kids. Compared to participants without disabilities, PwD beneficiaries are slightly older (average age of 25.4 versus 23.8), less likely to be female (42% versus 58%), and less educated (16.1 pp. and 13.5 pp. lower completion rates for high school and college, respectively).

The leading disability type is cognitive, representing 35% of applicants, followed by motor (15%) and sensory (10%). More than 8% of applicants have two or more concurrent disability types.

The bottom panel of Figure 2 shows the distribution across types of firms. Medium-

Table 2: Beneficiaries of Employment Programs (2012–18)

	PwD		(1) − (2)	
	(1) Yes	**(2) No**		
Panel A				
Demographics				
Female	0.419	0.579	-0.160	***
Age	25.379	23.844	1.535	***
Single	0.962	0.980	-0.018	***
Has children	0.066	0.077	-0.011	**
High school	0.529	0.690	-0.161	***
College	0.122	0.257	-0.135	***
Application				
Manual application	0.902	0.876	0.026	***
Place of residence				
Córdoba (Cap)	0.353	0.390	-0.036	***
NW Córdoba	0.107	0.118	-0.011	**
Rest of Córdoba	0.539	0.492	0.047	***
Type of disability				
Only motor	0.149	///	///	
Only mental	0.345	///	///	
Only sensory	0.104	///	///	
Only other	0.320	///	///	
More than 1 disability	0.082	///	///	
Panel B				
Firm size				
1 to 5 employees	0.414	0.437	-0.023	***
6 to 40 employees	0.330	0.282	0.048	***
41 to 100 employees	0.106	0.101	0.006	
More than 100 employees	0.150	0.181	-0.031	***
Sector				
Primary activities	0.005	0.004	0.002	
Manufacturing	0.144	0.142	0.002	
Electricity, gas and water	0.071	0.024	0.046	***
Construction	0.015	0.048	-0.033	***
Wholesale and retail	0.305	0.324	-0.019	**
Transport and communication	0.125	0.142	-0.017	***
Accommodation and food services	0.068	0.058	0.009	**
Finances and professional activities	0.078	0.130	-0.052	***
Education, human health and social work	0.074	0.068	0.005	
Art, entertainment and other services	0.115	0.058	0.057	***
N	**4,068**	**133,036**	///	

Note: Own elaboration based on Córdoba's employment programs database. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

sized firms—between 6 and 40 employees—are 4.8 percentage points more prevalent in applications from PwD participants than from the non-PwD applicant pool. Additionally, they are more likely to match firms in the utilities, accommodation and food, and arts and entertainment service sectors, while they are less prevalent in financial and professional activities, construction, and transport. Table A.1 in the Appendix shows the cross distribution of firm characteristics and disability type, as well as individual characteristics of the beneficiaries. Beneficiaries with only mental disabilities and those with more than one disability are less educated, more likely to be single, and less likely to have children. They also show a larger incidence of employment by firms in the manufacturing sector. Beneficiaries with motor disabilities show a greater incidence in the financial sector.

4.3 Participant Firms

Table 3 presents descriptive statistics for companies that participated in the PPP between 2012 and 2018. During this period, 38,587 firms participated in the program and 6.4% (2,453) companies hired at least one PwD through the program.

The share of women in the workforce is 2.4 percentage points higher at firms that have at least one beneficiary with a disability (PwD firms henceforth) than at firms that do not. The firms are also larger, particularly in the bracket of 6 to 40 employees, for which the incidence of PwD firms is 12 percentage points higher than that of non-PwD firms, and older (60.2% are more than five years old vs. 52.4%). Regarding the economic sector, PwD firms are more likely to be in wholesale and manufacturing (4.7 pp. and 3.5 pp., respectively), while non-PwD firms show a higher incidence in finance and professional services and primary activities (4.9 pp. and 6.4 pp., respectively).

5 Empirical Strategy

To evaluate the impact of the PPP program for PwD on employment outcomes, we implement a staggered DiD design, as treated individuals entered the program at different times between 2012 and 2018. The control group consists of PwD who had not yet joined the PPP but would do so later within the study period. We refer to them as the "not yet treated" group.[12]

A commonly used estimator for staggered adoption designs is the two-way fixed effects (TWFE) regression model. In our case, this model exploits variation in the timing of entry into the PPP across individuals. The TWFE specification estimating an average treatment effect is:

$$Y_{i,t} = \theta_t + \lambda_i + \alpha_{a(i,t)} + \beta^{\text{twfe}} D_{i,t} + e_{i,t} \tag{1}$$

[12] In Section 7, and more comprehensively in the Appendix, we present an alternative analysis that relies on a set of never-treated individuals as the control group—that is, those who also applied to the program during our period of analysis but were rejected and never received the benefit during the period.

Table 3: Firms Participating in PPP (2012–18)

	With PwD beneficiaries	Without PwD beneficiaries	Difference	
Female workers	0.433	0.409	0.024	***
Young workers	0.329	0.320	0.008	
Firm size				
1 to 5 employees	0.504	0.719	-0.215	***
6 to 40 employees	0.355	0.239	0.116	***
41 to 100 employees	0.077	0.026	0.050	***
More than 100 employees	0.064	0.016	0.049	***
Firm age				
Less than 1 year	0.079	0.107	-0.028	***
1 to 3 years	0.226	0.269	-0.042	***
4 to 5 years	0.093	0.100	-0.008	
6 to 10 years	0.189	0.203	-0.015	*
More than 10 years	0.413	0.320	0.093	***
Sector				
Primary activities	0.042	0.106	-0.064	***
Manufacturing	0.154	0.119	0.035	***
Electricity, gas and water	0.028	0.004	0.024	***
Construction	0.020	0.033	-0.013	***
Wholesale and retail	0.384	0.337	0.047	***
Transport and communication	0.042	0.064	-0.022	***
Accommodation and food services	0.062	0.059	0.004	
Finances and professional activities	0.111	0.160	-0.049	***
Education, human health and social work	0.084	0.059	0.024	***
Art, entertainment and other services	0.073	0.059	0.014	***
N	**2,453**	**36,134**		

Note: Own elaboration based on Córdoba's employment programs database. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Here, i indexes individuals and t indexes calendar years. The model includes year fixed effects (θ_t), individual fixed effects (λ_i), and age fixed effects ($\alpha_{a(i,t)}$). Our parameter of interest, β^{twfe}, captures the effect of participating in the PPP ($D = 1$) on employment outcomes, relative to not being exposed to the program yet.

Recent advancements in the DiD literature highlight a shortcoming of the TWFE estimator, β^{twfe} (de Chaisemartin and D'Haultfœuille, 2020; Goodman-Bacon, 2021; Sun and Abraham, 2021; Borusyak et al., 2024). One central issue is that TWFE estimations often rely on comparison groups that have already received treatment, which can distort the results. Notably, even when the parallel trends assumption holds for all groups and periods, the estimator may assign negative weights to some cohort-specific treatment effects. This is not an issue only under the strong assumption that treatment effects are constant across cohorts and over time, which is unlikely to hold in our setting.

Therefore, to address potential biases arising from time-varying treatment effects in staggered DiD designs, we also estimate the average treatment effect on the treated (ATT) using the method proposed by Callaway and Sant'Anna (2021). This approach avoids bias by relying exclusively on untreated units—either not-yet-treated (as in our main specification) or never-treated (as in the specification presented in the Appendix)—as valid control groups.

The approach proposed by Callaway and Sant'Anna (2021) involves a two-step procedure. First, it computes ATT for each treatment cohort g and period t, denoted $\widehat{\text{ATT}}(g,t)$, using standard DiD estimators applied to two groups and two periods. Second, these estimates are aggregated into overall treatment effects, weighting each cohort by its relative size. Identification of $\text{ATT}(g,t)$ relies on the assumption that, in the absence of treatment, the average change in potential outcomes from $t-1$ to t would have been the same for treated individuals in cohort g and for the not-yet-treated individuals at that moment.[13]

Since the effect of the program is unlikely to remain constant, we also estimate the following event-study version of equation (5), which serves as our main specification:

$$Y_{it} = \theta_t + \lambda_i + \sum_{\tau \neq -1} \beta_\tau \cdot I(\tau = e_{it}) + \alpha_{a(i,t)} + \varepsilon_{it} \tag{2}$$

Here, G_i is the year when individual i starts the PPP and $e_{it} = t - G_i$ represents the number of years before or after program participation (τ is the event-time index, with $\tau = 0$ denoting the treatment period). The coefficients β_τ for $\tau > 0$ capture the post-treatment effects of program participation on formal employment outcomes. We present both the TWFE event-study estimation and the estimation using Callaway and Sant'Anna (2021) (i.e., we aggregate the $\widehat{\text{ATT}}(g,t)$ estimates by event time e and report the resulting event-study estimates). In the analysis, we report both the average treatment effect over the five-year post-treatment period and the event-study estimates.

As shown in the next section, the analysis shows almost no pre-trends. Still, to formally test the credibility of the parallel trends assumption, we use the methodology of Rambachan and Roth (2023) to assess the robustness of our estimates to potential violations of the assumption. Our analysis shows that the estimated effects remain robust across a wide range of plausible deviations. Furthermore, we reinforce these findings by implementing the alternative estimation approach proposed by Borusyak et al. (2024), which yields consistent results in both magnitude and direction. Both of these exercises, detailed in Section 7, provide strong support for the credibility of our identification strategy and confirm the reliability of our results (presented in the next section).

6 Results

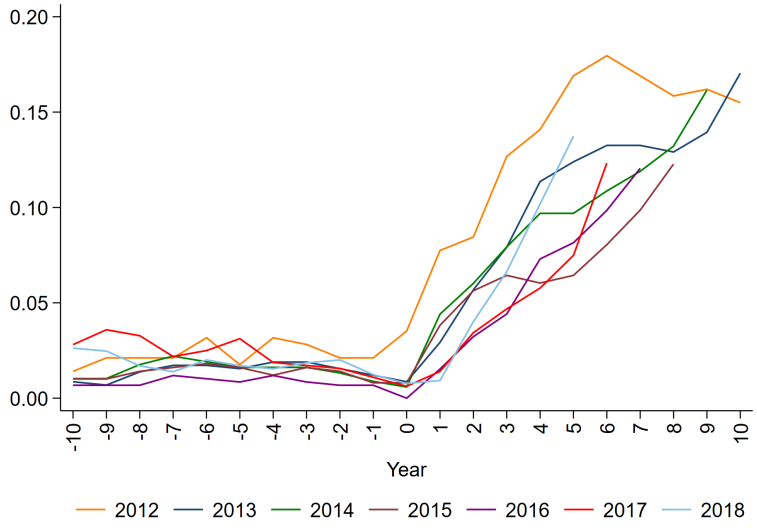
6.1 Employment Raw Data

Figure 1 shows the evolution of the rate of formal employment for PwD beneficiaries of the PPP, by program edition. Time is expressed in calendar years and normalized to zero in the year of a candidate's first application. The outcome variable equals one if the worker is registered in formal employment for at least 6 months within that calendar year, as recorded in administrative registries. We later adopt variations of the outcome, considering 1, 9, and 12 months of employment in the year.

[13] All estimations are conducted using the `csdid` command in Stata (Rios-Avila et al., 2021).

Program beneficiaries exhibit an employment rate that is flat and close to zero during the 10 years preceding the start of the internship. A discrete upward shift occurs in the year after program participation, followed by a generally increasing employment rate. For later program editions, the figure also reflects the limits of the observation window in our data. For example, the 2018 cohort is observed only up to period 5, corresponding to 2023, the latest year for which data are available. The observed pre- and post-program patterns are consistent with a positive association between program participation and subsequent employment.

Figure 1: Evolution of Formal Employment by PPP Cohort - Beneficiaries



Note: Own elaboration based on Córdoba's employment programs database and OEDE's administrative records. Each line depicts the formal employment rate for a specific PPP cohort since the year when the program was implemented. The dummy variable *Formal employment* takes the value 1 if the individual is observed in social security registries for at least six months in the calendar year.

6.2 Formal Employment

Figure 2 presents our main outcome of interest: formal employment. The figure reports the probability of being formally employed for at least 1, 6, or 12 months in a given calendar year. The least demanding definition—at least 1 month—captures the ability to start a job in the formal sector, while the more demanding definitions speak to the probability that a more persistent and stable link is established. Figure 3 displays the total number of months of formal employment in the calendar year. In all cases, individuals are considered formally employed only when they are registered and making social security contributions. We exclude the PPP internship period itself since our focus is on genuine labor market integration—the ultimate objective of the program. Both figures 2 and 3 show the estimated β_τ coefficients from the staggered DiD specification described in Section 5.

As explained earlier, the event-study parameters are estimated using the adjustment

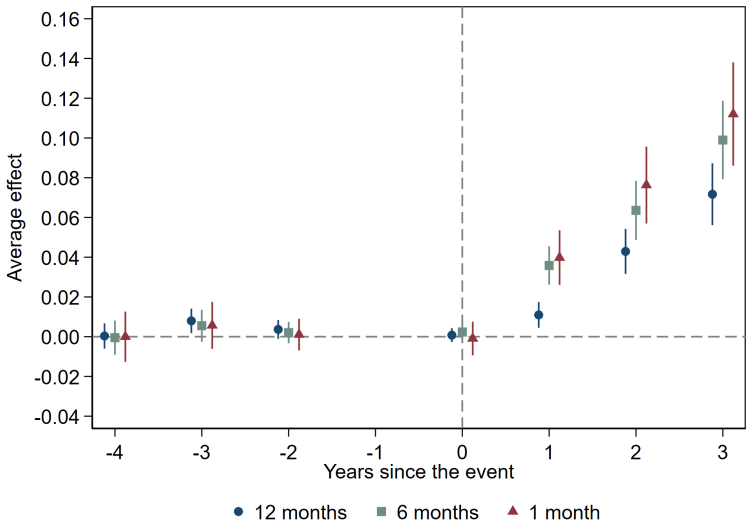
estimator proposed by Callaway and Sant'Anna (2021), which uses not-yet-treated individuals as the comparison group. Circles represent point estimates from the Callaway and Sant'Anna (2021) estimation, with red vertical lines indicating the corresponding 95% confidence intervals. All coefficients are expressed relative to the baseline period, defined as the year prior to entering the program ($\tau = -1$).

We find persistent positive effects of program participation on formal employment across all outcome measures according to the Callaway and Sant'Anna (2021) estimation, our preferred specification. The probability of being formally employed for at least 1 month in a given year increases on average by 8 percentage points relative to baseline levels over the three years after treatment, with the effect growing over time and reaching nearly 11 percentage points by year three. Turning to sustained employment, we observe similar patterns when defining the outcome as at least 6 or 12 months of formal employment within a calendar year. The estimated effects average 6.6 and 4.2 percentage points, respectively, over the post-treatment period, and by year 3 they reach nearly 10 and 7 percentage points. Finally, Figure 3 shows that program participation increases the total number of months of formal employment per year by an average of 0.7 months, with the effect steadily rising over time.[14]

An additional pattern worth highlighting in the figure is the absence of pre-trends, which strengthens confidence in our identification strategy. In Section 7, we conduct the sensitivity analysis proposed by Rambachan and Roth (2023), which confirms that pre-trends are not a concern in our setting. Second, in the period of program entry ($\tau = 0$), the coefficients are essentially zero. This is because participants are locked into the program, and this participation does not count as formal employment, while the control group also exhibits very low baseline employment rates.

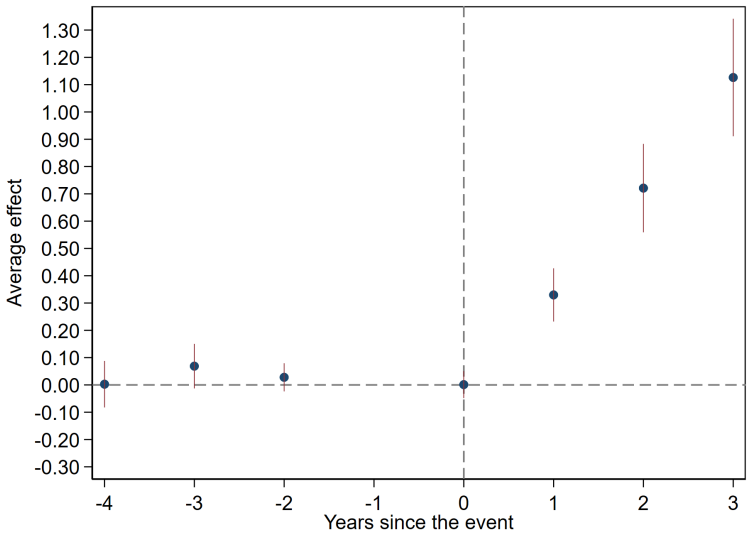
[14]The results obtained using the TWFE specification are very similar to those produced by the estimator proposed by Callaway and Sant'Anna (2021). This similarity suggests that the TWFE estimates are not materially affected by potential biases typically associated with TWFE in settings with staggered treatment adoption and heterogeneous treatment effects. In particular, that the more flexible Callaway and Sant'Anna approach—which allows for treatment-effect heterogeneity—yields estimates that closely align with those from TWFE provides additional confidence in the robustness and validity of our findings.

Figure 2: Employment Rate



Note: Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. This event study uses not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects, and standard errors are clustered at the individual level. The dummy variable *Formal employment* takes the value 1 if the individual is observed in social security registries for at least 1, 6, or 12 months in the calendar year.

Figure 3: Months of Employment in the Calendar Year



Note: Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. This event study uses not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects, and standard errors are clustered at the individual level.

The magnitude of the results in Figure 2 is particularly striking given the generally low baseline rates of formal employment among PwD applicants to the PPP and the absence of restrictions on re-enrollment. In principle, the possibility of repeated participation could reduce the incentive to seek unsubsidized employment and thereby attenuate program impacts. In fact, however, this feature may be central to the program's effectiveness: By allowing multiple rounds of participation, the PPP offers beneficiaries several years of subsidized support, allowing sufficient time to transition into genuine formal employment. This transition may take longer than a single round of the internship, which lasts about one year. In practice, many participants engage in multiple rounds of the program.

Figure 4 illustrates this pattern. Here, the outcome variable takes the value of one if an individual is enrolled in the PPP—either in the first program to which they applied or in any subsequent rounds. As expected, participation rises sharply in period $\tau = 0$ (the year of first entry), declines rapidly thereafter, but remains positive in subsequent years before gradually tapering off and stabilizing at around 15 percentage points. When comparing the trajectory of formal employment in Figure 2 after the first round of PPP participation with the probability of re-enrollment in the program, the two trends appear to mirror each other: While formal employment steadily increases, participation in the program steadily declines. This inverse relationship suggests that the upward trend in formal employment among beneficiaries is likely driven by individuals exiting the program and successfully starting unsubsidized formal jobs.

Figure 5 shows the effect of the program on beneficiaries' integration into formal firms, either through participating in the PPP or holding a formal employment contract. This figure combines the results previously presented in Figures 2.a and 4. It highlights that the program leads to a significant and persistent increase in the number of beneficiaries in formal firms. This effect captures both direct participation in multiple editions of the internship program and the program's potential role in facilitating transitions to formal employment. Overall, these findings underscore the program's effectiveness in improving access to the formal sector for PwD—whether through subsidizing internships or by enhancing their chances of securing formal jobs thereafter.

Figure A.2 in the Appendix further examines how these employment effects translate into monthly labor earnings (in constant 1995 pesos). The estimated impacts are positive and tend to grow. However, this analysis does not add much insight beyond the employment results discussed earlier. On the one hand, our administrative data report monthly earnings but not hours worked, which prevents us from constructing hourly wages—an indicator that would help assess potential improvements in job quality in addition to increased employment. On the other hand, because almost all participants had no recent formal employment before entering the program, most of the observed increase in earnings simply reflects the transition into formal jobs rather than a movement into better-paid positions. Since this exercise cannot separate changes driven by more hours, better job quality, and entry into formal employment—and because the earnings results are likely to mirror the employment effects—we present these results in the Appendix.

Figure 4: Probability of Participation in PPP

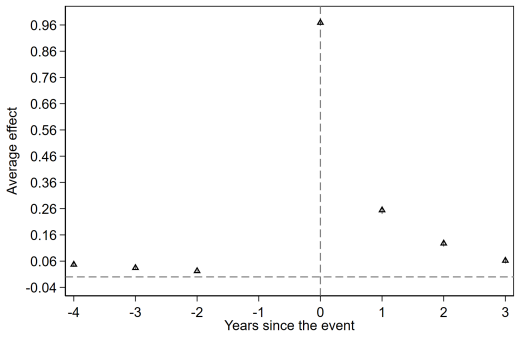
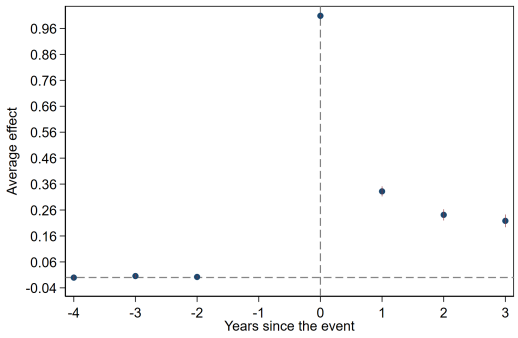


Figure 5: Probability of Formal Employment or Participation in PPP

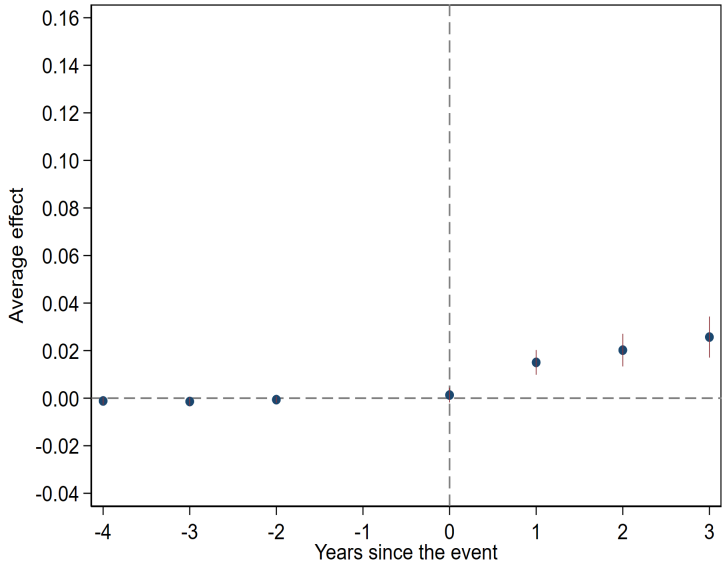


Note: All regressions include year and age fixed effects, and standard errors are clustered at the individual level. For Fig. 4, the outcome variable equals 1 if the individual participated in any employment program τ years from the first application. Triangles represent point estimates of β_τ from the two-way fixed effects specification (2) with staggered treatment timing. The black vertical lines denote 95% confidence intervals. For Fig. 5, the outcome variable equals 1 if the individual was formally employed for at least six months or participated in any employment program τ years from the application. Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. This event study uses not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by a specific year).

A potential alternative explanation for the results in Figure 2 is that they reflect

strategic behavior—specifically, individuals with preexisting informal ties to firms might use the program as a means to formalize those relationships. To address this concern, we examine the evolution of the probability of being formally employed at the same firm where the first internship took place. This allows us to assess whether the program's effects are primarily driven by continued employment within the same firm. Importantly, however, such continued employment is not necessarily inconsistent with a genuine program impact. On the contrary, it may indicate that the PPP facilitated a match between worker and employer—an opportunity that might not have materialized in the absence of the program. Figure 6 presents these results. While the effect is positive, it is smaller than our main estimate, suggesting that around three-quarters of the formal employment gains come from jobs at different firms. This finding reinforces the idea that the program not only supports initial placements but also fosters broader integration into the formal labor market.

Figure 6: Probability of Formal Employment at the Same Firm



Note: The outcome variable equals 1 if the individual was formally employed at the same firm where the internship occurred for at least six months τ years from the application to the program. Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. The event study estimates are computed using not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

6.3 Heterogeneous Effects

We analyze heterogeneous effects of the PPP on formal employment along several key dimensions: gender, age, type of disability, firm size, and place of residence. These analyses help assess whether the average impacts documented in the previous section mask important differences in treatment effects across subgroups of interest.

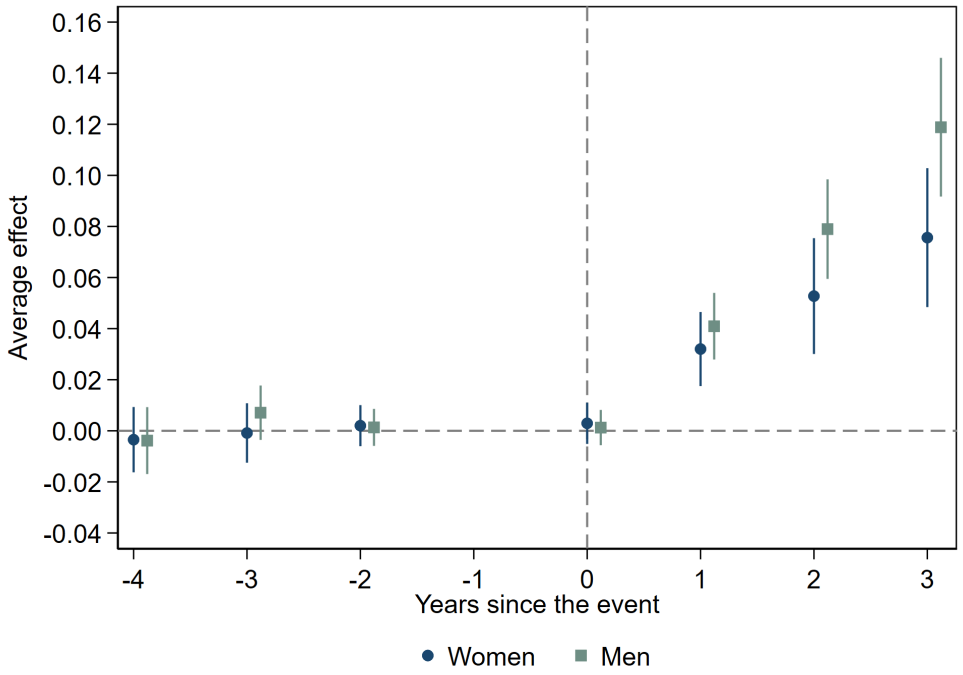
We find differential effects in absolute terms by gender: Program impacts are larger for men. However, this conclusion is attenuated because the counterfactual level of formal employment in the absence of treatment for women may be considerably lower than for men (mean levels in the control group are close to zero for both groups, but lower for women than for men), so the impact relative to the counterfactual outcome is not necessarily larger for men (Figure 7). Results by age do not significantly differ between youth and adults (Figure 8).

Positive effects are observed for individuals with all types of disabilities, though the magnitude of these effects vary (Figure 9). The largest improvements are found among PwD classified as "Other health-related and neurological disabilities" as well as for those with motor and sensory disabilities.[15]

Estimated impacts are substantially larger for individuals residing in the provincial capital compared to those living outside this urban core (Figure 10). This pattern may reflect better matching between interns and firms in urban areas, greater firm capacity to offer formal contracts after internships, and broader labor market opportunities. Nevertheless, baseline formal employment rates are higher in the capital city, which implies that the program's relative impact compared to the appropriate control group may not differ substantially across the two areas. Given that the impacts outside the capital are also meaningful, we conclude that the program is able to effectively reach diverse geographic settings. With respect to the size of the firm chosen for the work experience offered by the program, we do not find substantial differences across the three firm sizes compared in Figure 11.

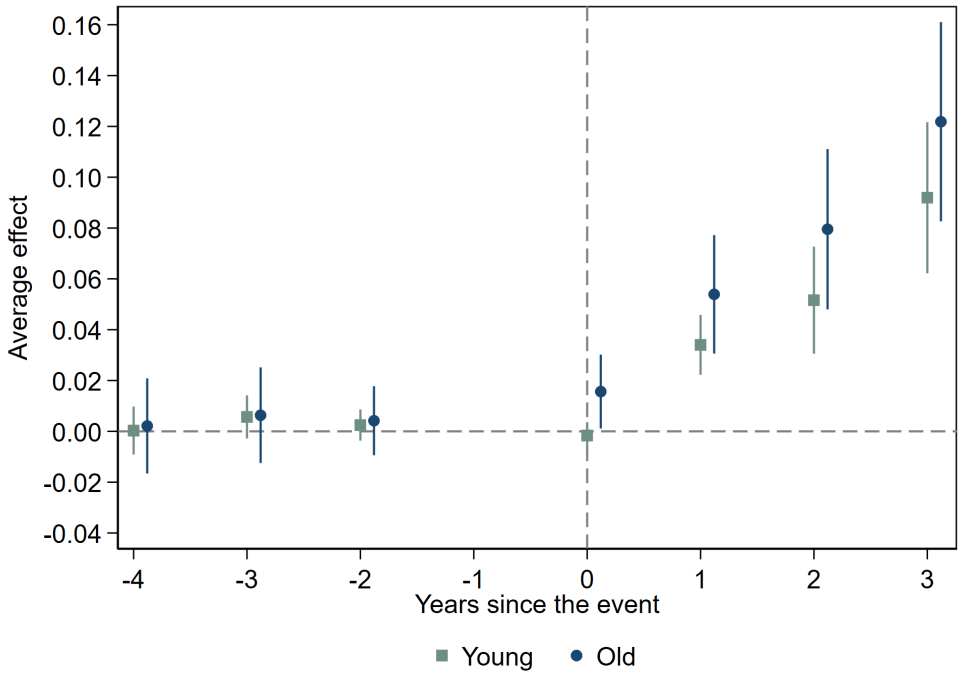
[15]The group of "Other health-related and neurological disabilities" includes chronic health conditions, neurological disorders, and communication or learning disabilities not classified as motor, sensory, or mental.

Figure 7: Probability of Formal Employment by Gender



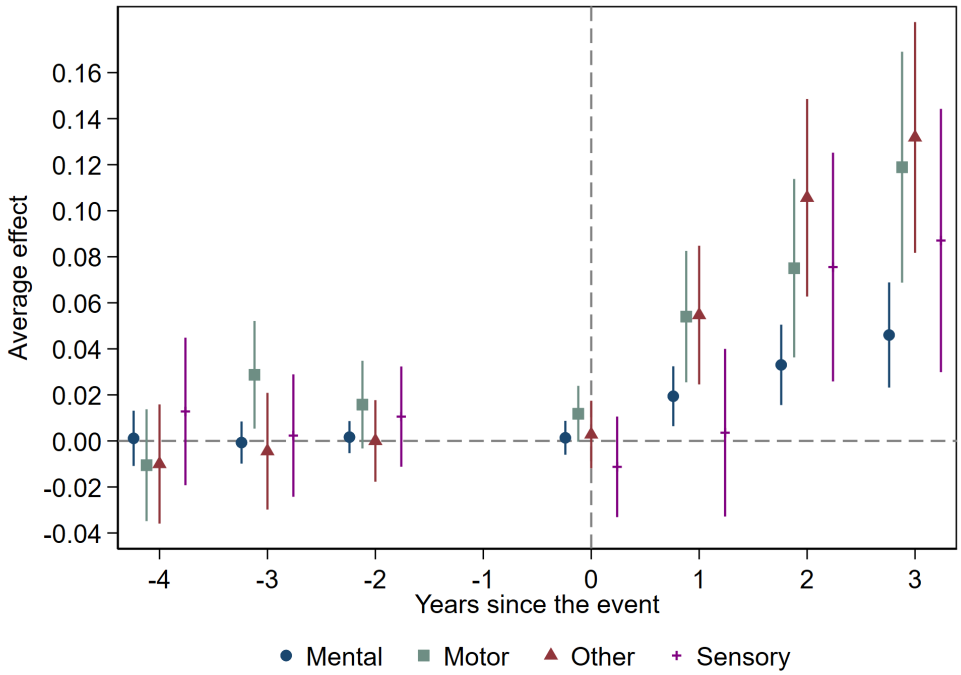
Note: The outcome variable equals 1 if the individual was formally employed for at least six months τ years from the application to the program. Circles and squares show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021) for men and women separately, with vertical lines indicating the corresponding 95% confidence intervals. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

Figure 8: Probability of Formal Employment by Age



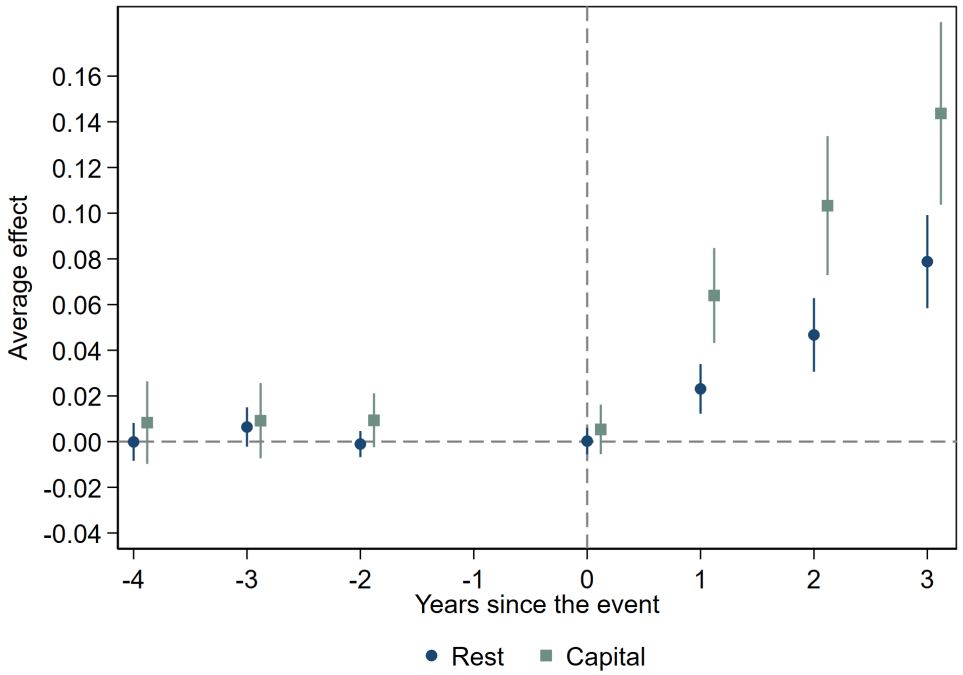
Note: The outcome variable equals 1 if the individual was formally employed for at least six months τ years from the application to the program. Circles and squares show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021) for individuals younger and older than 30 separately, with vertical lines indicating the corresponding 95% confidence intervals. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., people with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

Figure 9: Probability of Formal Employment by Type of Disability



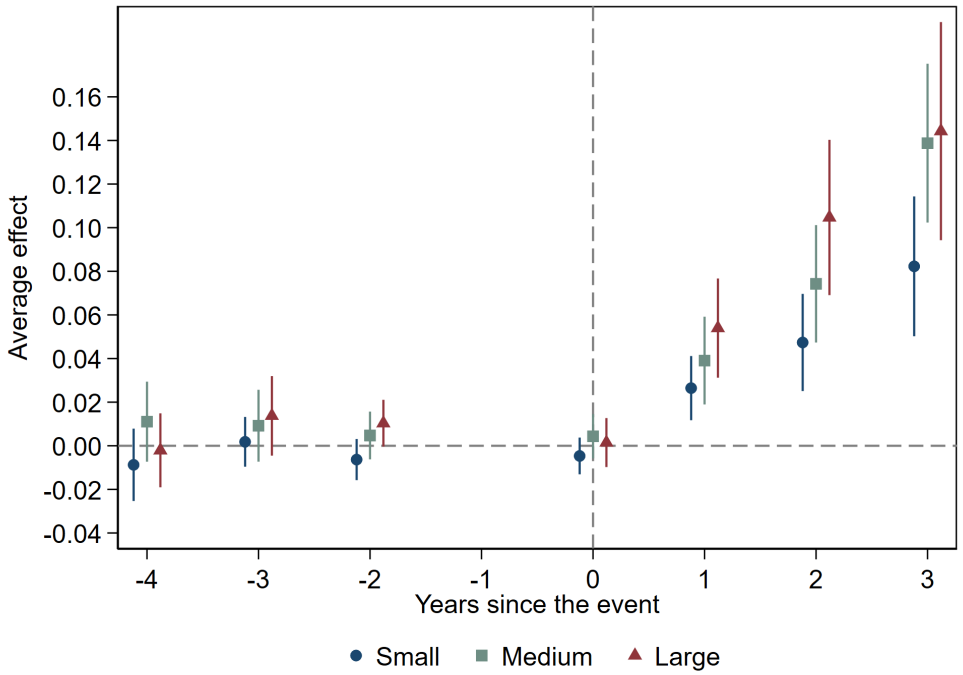
Note: The outcome variable equals 1 if the individual was formally employed for at least six months τ years from the application to the program. Circles, squares, triangles, and dashes show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021) for different types of disabilities, with vertical lines indicating the corresponding 95% confidence intervals. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., people with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

Figure 10: Probability of Formal Employment by Region



Note: The outcome variable equals 1 if the individual was formally employed for at least six months τ years from the application to the program. Circles and squares show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021) for the capital city and the rest of the province, with vertical lines indicating the corresponding 95% confidence intervals. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., people with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

Figure 11: Probability of Formal Employment by Firm Size

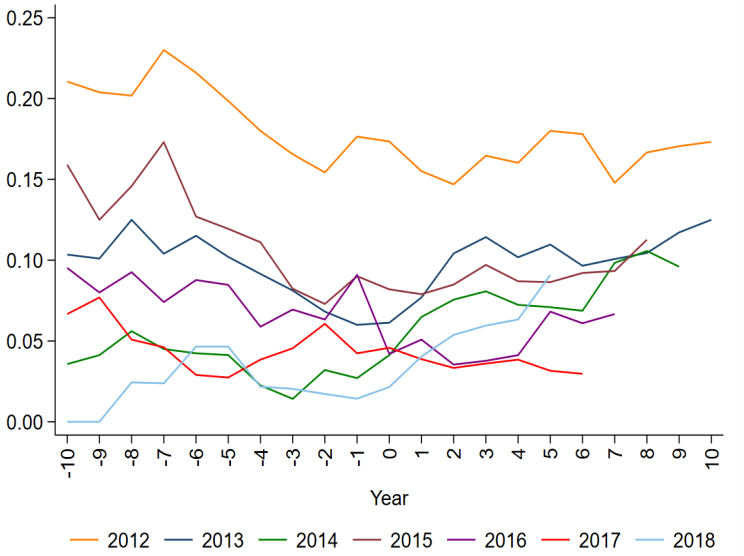


Note: Circles, squares, and triangles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021) for firms of different size, with vertical lines indicating the corresponding 95% confidence intervals. The event study uses not-yet-treated units as the comparison group (i.e., people with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects, and standard errors are clustered at the individual level. The outcome variable equals 1 if the individual was formally employed for at least six months τ years after the application and completed the internship in (a) a firm with **1–5 employees**, (b) a firm with **6–40 employees**, or (c) a firm with **more than 40 employees**.

6.4 Analysis of Firms Hiring

In this section, we examine whether a firm's participation in the PPP for PwD has a longer-term impact on the likelihood of hiring PwD. Figure 12 shows the raw data for firms, capturing the share of firms that employ at least one PwD by year of first participation in the PwD track of the PPP program. The data show that for most cohorts, the share of firms with PwD employees tended to decrease or fluctuate during the pre-program period. After the program's implementation, the shares generally stabilized, with some cohorts showing a brief increase.

Figure 12: Share of Workers with Disabilities by Firm and PPP Cohort

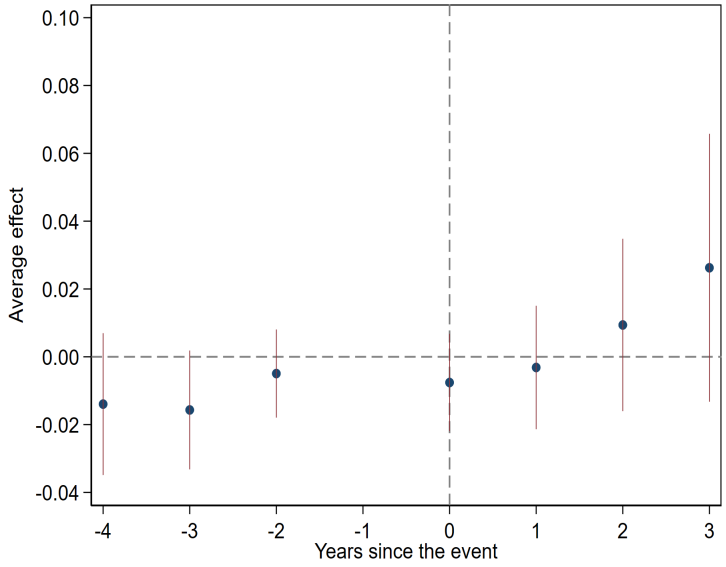


Note: The graph shows the share of firms with at least one PwD in their workforce, by year of first participation in the PwD track of the PPP program. The PwD group includes individuals identified in the program dataset, the CUD dataset, and the OEDE dataset. Shares are normalized relative to the year the program was implemented.

Figure 13 presents the estimated effects of the program on the probability that a firm hires at least one PwD in the years following participation. We find no evidence of a positive effect of firm participation in the program on hiring PwD. The magnitude of the coefficient for period three reaches 3 percentage points, but the estimation is underpowered and not statistically significant.

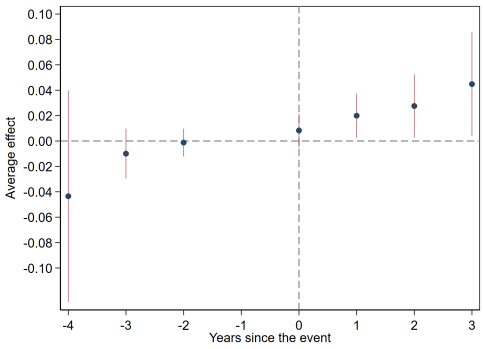
Figure 14 presents outcomes by firm size. We observe that pre-trends are not statistically different from zero for the three size brackets shown. For smaller firms, we find positive and increasing point estimates that are statistically significant for two and three years after the program, with a magnitude of around 2.8 percentage points. Coefficients for medium-sized and large firms are mostly not statistically significant.

Figure 13: Probability of Hiring at Least One Person with Disabilities

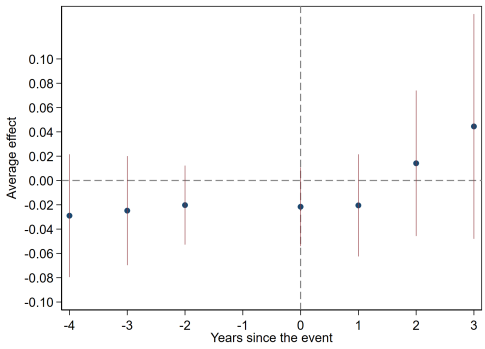


Note: The outcome variable equals 1 if the firm employed at least one person with a disability τ years from the application to the program. Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. The event-study estimate is computed using not-yet-treated units as the comparison group (i.e., firms who had not been exposed to the treatment by a specific year). All regressions include year fixed effects. Standard errors are clustered at the firm level.

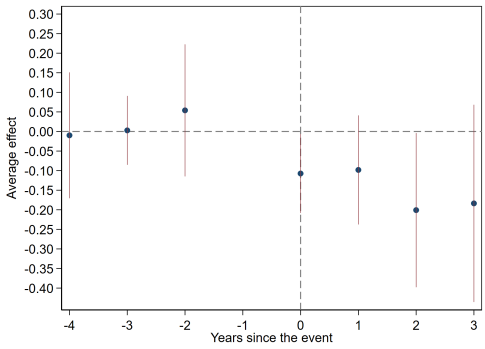
Figure 14: Probability of Hiring at Least One Person with Disabilities by Firm Size



(a) 1–5 Employees



(b) 6–40 Employees



(c) More Than 40 Employees

Note: The outcome variable equals 1 if the firm has at least one person with a disability in its workforce τ years from the application to the program, distinguishing by firm size (small: 1–5 employees; medium: 6–40; large: more than 40). Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., firms who had not been exposed to the treatment by a specific year). All regressions include year fixed effects. Standard errors are clustered at the firm level.

The sector in which the interns end up working reveals interesting patterns. Figure 15 shows the transition between the firm and sector in which the beneficiary completed their internship and the firm and sector in which they were hired three years later. This figure shows that three-quarters of beneficiaries who remained in the formal sector transitioned from the internship firm to others. Among beneficiaries who switched firms, around 10% remained in the same sector. This is only slightly above the average sector size, indicating the transferability of the potential skills or productivity signals that the program may lead to.

Figure 15: Transition Across Firms and Sectors (t=3 vs. t=0)

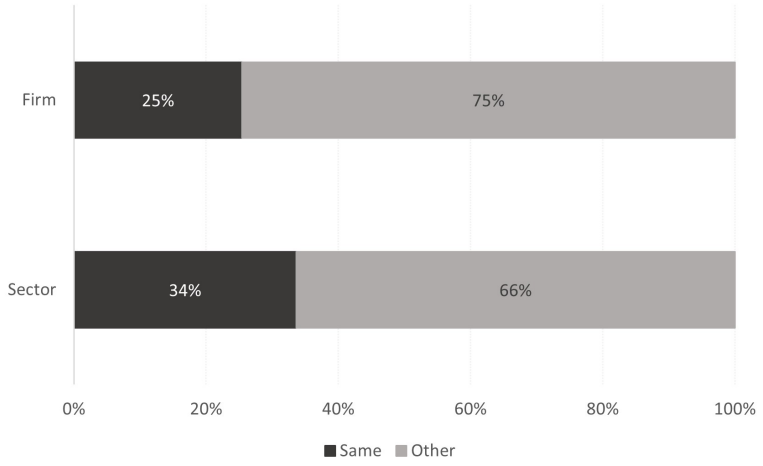


Figure 16: Transition Across Sectors

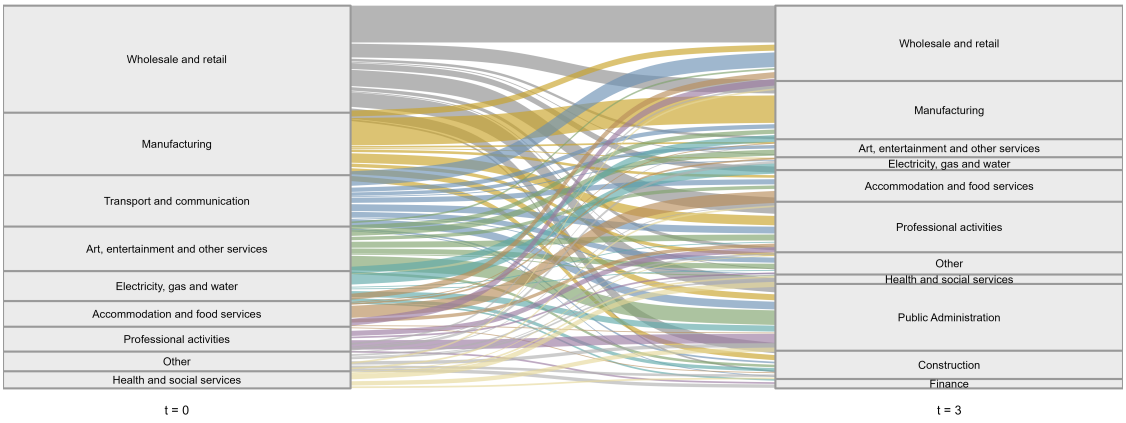


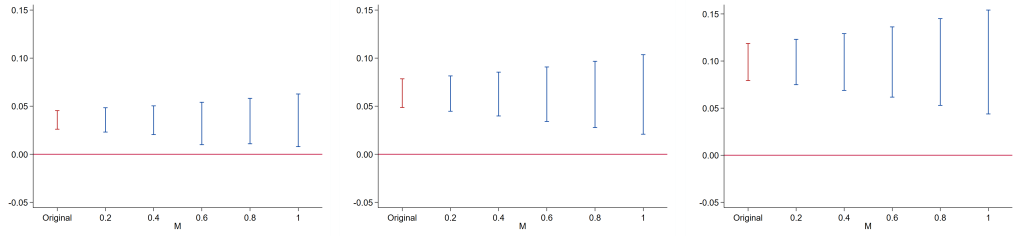
Figure 16 and Table A.6 provide a more detailed view of these transitions. Three years after completing the program, a large share of beneficiaries is employed in public administration (17%). There are also notable patterns within the wholesale and retail sector. Beneficiaries who completed their internships in firms in this sector tend to move primarily into professional services, construction, manufacturing, and public administration. In contrast, many interns whose placements span a wider variety of sectors often end up working in the wholesale and retail sector. Finally, participants in the manufacturing sector exhibit strong persistence: The vast majority of beneficiaries who completed their internships in companies in this sector remained there three years later. Another sector with moderate persistence is accommodation and food services. Likewise, there are few movements from other sectors into manufacturing.

7 Robustness

In this section, we assess the robustness of our main findings through a series of alternative specifications and sensitivity analyses. First, we conduct the sensitivity analysis proposed by Rambachan and Roth (2023), which assesses the robustness of our estimates to potential violations of the parallel trends assumption. This approach uses pre-treatment trends to bound the post-treatment ATT under assumptions that limit the size of deviations from parallel trends to a multiple of the largest pre-treatment deviation. Accordingly, Figure 17 reports estimates for each post-treatment period under the weaker identifying assumption that deviations from parallel trends in the post-treatment periods do not exceed a pre-specified fraction—up to 100%—of the largest period-to-period change observed before treatment (i.e., a value of 100% would require that the post-treatment violation of parallel trends be no larger than the worst pre-treatment violation of parallel trends). We present the analysis for the outcome "formal employment for at least six months within a year," but the conclusions also remain robust for the other outcomes analyzed, which are available upon request. The results show that our estimated effects remain robust across a wide range of plausible deviations from parallel trends, supporting the credibility of our identification strategy.

Second, we assess the robustness of our main results by implementing the alternative estimation approach proposed by Borusyak et al. (2024). As shown in Figure 18, the findings remain consistent in both magnitude and direction. Again, we present the results for the outcome "formal employment for at least six months," but the conclusions remain robust for the other outcomes as well.

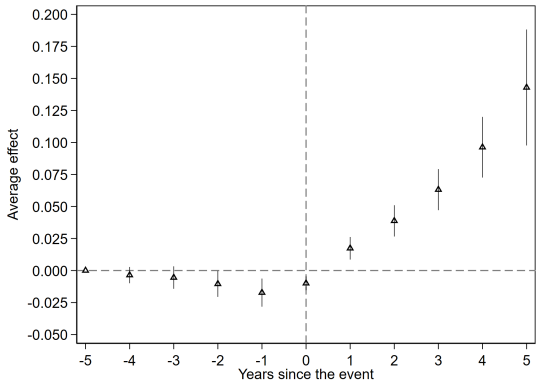
Figure 17: Sensitivity Analysis to Violation of the Parallel Trends Assumption - Rambachan and Roth (2023)



(a) Sensitivity for $\tau = 1$ (b) Sensitivity for $\tau = 2$ (c) Sensitivity for $\tau = 3$

Note: Red lines represent 95% confidence intervals for the estimates obtained through Callaway and Sant'Anna (2021) method. Blue lines are 95% confidence intervals for different values of M, which represents the ratio between the maximum post-treatment violation of the parallel trends assumption and the maximum violation of parallel trends in the pre-treatment period.

Figure 18: Estimated Effect on the Probability of Being Formally Employed - Borusyak et al. (2024)

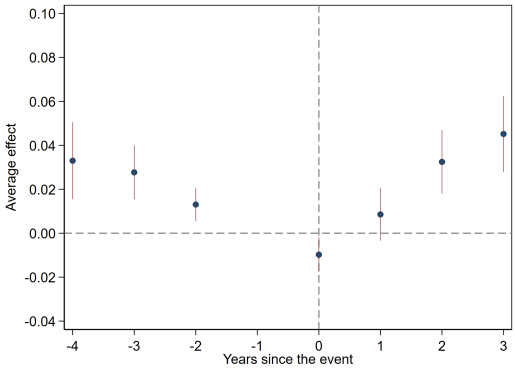


Note: Triangles show point estimates from the estimator proposed by Borusyak et al. (2024), with black vertical lines indicating the corresponding 95% confidence intervals. The outcome variable equals 1 if the individual was formally employed for at least six months τ years from the application to the program. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

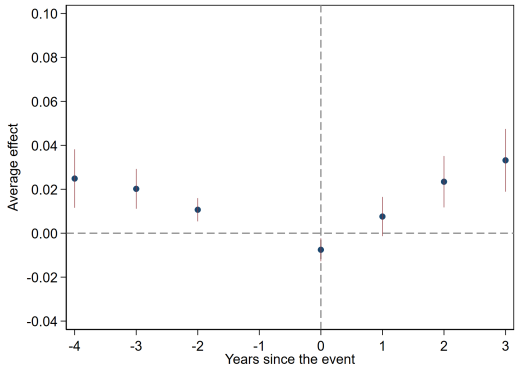
Third, we re-estimate the effects using only the never-treated group as the control group (Figure 19). This never-treated group comprises individuals who applied to the program during our study period but were rejected from the PwD track and never received the benefit during the period. This alternative specification yields positive effects on formal employment, consistent with our baseline estimates that use the not-yet-treated group in the Callaway and Sant'Anna (2021) approach, though smaller. Overall, the sign of the effects remains robust under this alternative control-group specification, although the magnitudes are smaller.

Finally, to rule out the possibility of any potential confounding effects of the COVID-19 pandemic, we re-estimate our main specification using a restricted sample that includes only pre-2019 observations and cohorts prior to 2017. Figure 20 shows that, although estimates are more volatile because of the smaller sample size, both the magnitude and sign of the coefficients remain very similar to those in the baseline estimate.

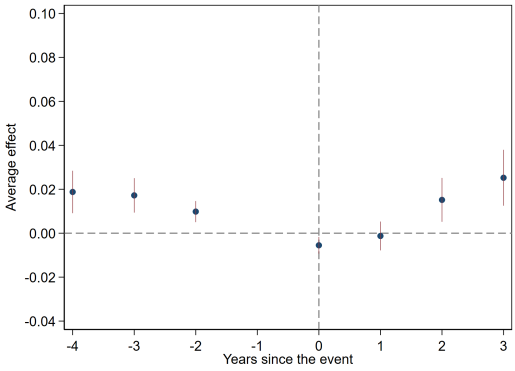
Figure 19: Formal Employment Outcomes - Comparison Group: Never Treated



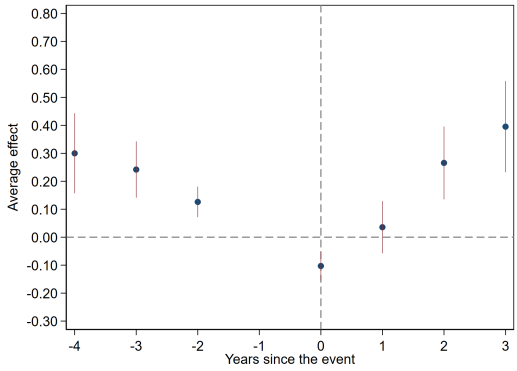
(a) 1 Month in Formal Employment



(b) 6 Months in Formal Employment



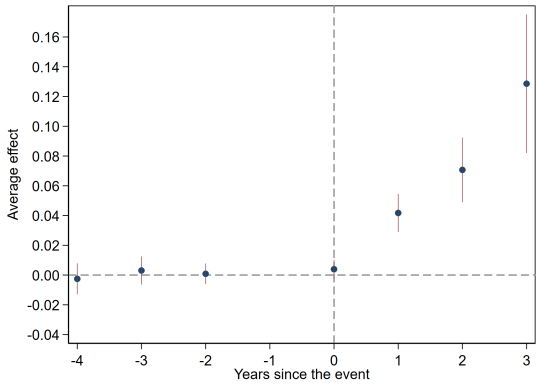
(c) 12 Months in Formal Employment



(d) Months in Formal Employment

Note: Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. This event study uses never-treated units as the comparison group (i.e., individuals with disabilities who had not been exposed to the treatment by 2023). All regressions include year, individual, and age fixed effects, and standard errors are clustered at the individual level. Outcome definitions for each panel: (a) **1 month in formal employment:** equals 1 if the individual was formally employed for at least 1 month τ years from the application. (b) **6 months in formal employment:** equals 1 if the individual was formally employed for at least 6 months τ years from the application. (c) **12 months in formal employment:** equals 1 if the individual was formally employed for at least 12 months τ years from the application. (d) **Months in formal employment:** measures the total number of months the individual was formally employed τ years from the application.

Figure 20: Probability of Formal Employment - Excluding Post-2019 Observations



Note: The outcome variable equals 1 if the individual was formally employed for at least six months τ years from the application to the program. The sample is restricted to observations prior to 2019 and cohorts prior to 2017. Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. The event-study estimates are computed using not-yet-treated units as the comparison group (i.e., people with disabilities who had not been exposed to the treatment by a specific year). All regressions include year and age fixed effects. Standard errors are clustered at the individual level.

Discussion

An important consideration for our main identification approach is the fact that participation in the program was voluntary. The key assumption in our identification strategy is that conditional on observed covariates, counterfactual trends in formal employment would have been similar for individuals already treated and those not yet treated. Our preferred specification, the Callaway and Sant'Anna (2021) DiD estimator, allows for time-invariant differences across individuals and for common time trends in outcomes. Nonetheless, it does not rule out the possibility that an unobserved factor is driving both program participation and positive employment outcomes. A particularly salient concern for this population is health shocks: A favorable health spell could both increase the probability of entering the program and simultaneously improve employability. This would imply endogenous timing of selection into the program.

The main support for our results comes from the raw data presented in Figure 1. The key feature that stands out is that the date of program participation closely coincides with a salient break in the observed rate of formal employment. Additionally, the magnitudes observed in the figure are large compared to the baseline employment rate for this population group; for instance, the average employment rate three years after program participation is 7.8 %, while it is between 0.8 and 2.2 % two years before.

The robustness exercise with the never-treated group further supports our results. This group is arguably more comparable because they demonstrated a similar willingness to participate in the program at the same time as the treated individuals. However,

they may also differ in other dimensions: Since they were not accepted into the disability track, they may be less severely affected by disability and therefore exhibit higher baseline employability, implying a downward bias in our estimates. The results in this exercise remain positive and statistically significant, though smaller. Additionally, negative pre-trends emerge, which would also lead us to understate the causal effect of the treatment. Overall, we interpret the findings in this robustness exercise as reinforcing the causal interpretation of our main results while providing a conservative lower bound on the program's effects.

Possible Mechanisms

The estimated effects of the PPP are consistent with several mechanisms, some of which we can only assess indirectly through observed patterns of heterogeneity and complementary evidence. While our data do not allow us to directly identify the underlying channels, the combination of sustained-employment effects, post-program mobility across firms, and heterogeneous impacts across groups provides suggestive evidence on how the program may operate and where its mechanisms may be weaker.

The first mechanism relates to the reduction of informational frictions in the labor market. As discussed above, a large share of post-program employment occurs in firms other than the initial internship host, indicating that the program does not primarily operate by formalizing preexisting relationships. Instead, subsidized internships appear to facilitate the formation of matches that reveal information about worker productivity, reliability, and workplace interactions, which then become transferable to future employment opportunities. This interpretation is consistent with prior evidence for the non-PwD track of the program (Berniell and de la Mata, 2017) and with documented spillovers to nearby applicants (Berniell et al., 2024), both of which emphasize the role of updated expectations, improved job-search strategies, and learning about returns to formal employment.

The heterogeneous effects across types of disability shed additional light on the scope of this mechanism. Information-based channels are likely to be more effective when job performance and productivity are relatively observable once access barriers are overcome. This may help explain why sustained-employment effects are stronger for individuals with motor and sensory disabilities, for whom barriers are often physical or instrumental and can be addressed through relatively simple adaptations. In these cases, the internship may quickly generate credible signals that reduce employer uncertainty in subsequent matches.

By contrast, smaller effects for individuals with mental or psychosocial disabilities suggest potential limits to information-based mechanisms operating in isolation. For this group, employment barriers tend to be less visible, more context dependent, and more sensitive to organizational environment. Employer concerns may relate not only to productivity, but also to perceived risks such as instability or workplace conflict, which might

not be fully resolved through a single, time-limited employment spell. In the absence of ongoing supports or explicit mediation, the informational content of an internship may therefore be insufficient to substantially alter employer beliefs or sustain employment gains.

The second mechanism concerns the interaction between program impacts and local labor market conditions. The stronger effects observed in the capital city suggest that reduced informational frictions and improved signaling translate more effectively into sustained employment in larger and more diversified labor markets. Such markets may offer a greater number of potential matches and be better able to accommodate nonlinear employment trajectories following the internship period. This feature may amplify the effectiveness of the program's mechanisms, particularly for individuals whose employment prospects depend critically on post-internship mobility across firms.

Taken together, these patterns suggest that the PPP operates primarily by improving information and expectations on both sides of the labor market, thereby facilitating transitions into formal employment beyond the initial internship. At the same time, the heterogeneous effects point to the potential absence or weakness of these mechanisms for groups facing constraints that require more continuous, individualized support. This highlights the importance of considering how generalist internship programs might be complemented with additional interventions to better address the diverse barriers faced by PwD.

8 Conclusion

This paper evaluates the impact of an internship program—Argentina's PPP—on the formal employment outcomes of PwD. Using rich administrative data from the province of Córdoba, we find that participation in the program significantly increases the likelihood of formal employment along the extensive margin and improves sustained employment over time. The probability of being formally employed for at least 1 month in a given year increases over time, reaching 11 percentage points by year three relative to baseline levels. The program also fosters sustained employment: After three years, the probability of working at least 6 months increases by nearly 10 percentage points, while the likelihood of 12 consecutive months of formal employment rises by about 7 percentage points. In addition, beneficiaries work on average almost one extra month per year, with this effect also growing.

These gains are particularly meaningful in a context where baseline employment levels among PwD are extremely low and where few programs show sustained impacts. Importantly, we find that a substantial share of employment gains occur outside the original internship firm, suggesting that the program not only provides temporary opportunities but also facilitates broader labor market integration. The magnitudes of the effects in absolute terms are stronger for particular groups: men, individuals with motor and sensory disabilities or classified as having "other" disabilities, and those residing in the provincial

capital. However, differences in absolute terms sometimes only emerge over the medium term and should be interpreted in light of baseline differences in formal employment levels.

While some beneficiaries participate in the program across multiple rounds, formal employment gains persist even after they exit, indicating that the results are not merely driven by continued program involvement. This extended participation may provide individuals with the time and experience needed to transition from subsidized internships to unsubsidized, stable jobs in the formal sector. Furthermore, we find that these gains are not confined to the original internship firm: More than two-thirds of beneficiaries are subsequently employed by other formal firms, pointing to broader improvements in employability and labor market access.

We also examine potential longer-term effects on participating firms and find no evidence of changes in their hiring behavior toward PwD after hosting a PPP intern with a disability. This result is consistent with the fact that altering firms' hiring practices was not an explicit objective of the program.

Taken together, our findings suggest that well-designed internship programs can serve as an effective tool for improving the formal labor market inclusion of PwD. The PPP not only provides a short-term entry point into the world of work but also appears to enhance employability and open pathways to unsubsidized formal jobs. Future research should continue to explore the mechanisms through which such programs operate, particularly the role of repeated exposure, employer incentives, and complementary services. It is also crucial to investigate how programs can be adapted to address the heterogeneous needs of people differing in type of disability, stage of the life cycle, gender, and place of residence, ensuring that interventions are effective and inclusive across diverse populations.

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A Appendix

Table A.1: Beneficiaries of Employment Programs by Type of Disability (2012-2018)

	Only Motor	**Only Mental**	**Only Sensory**	**Only Other**	**More than 1 disability**
Demographics					
Female	0.426	0.391	0.454	0.433	0.424
Age	28.502	24.078	26.275	24.791	26.325
Single	0.934	0.989	0.967	0.936	0.991
Has children	0.097	0.033	0.064	0.097	0.033
High school	0.647	0.395	0.615	0.616	0.427
College	0.252	0.024	0.187	0.151	0.104
Application					
Manual application	0.861	0.907	0.835	0.931	0.931
Firm size					
1 to 5 employees	0.433	0.396	0.370	0.428	0.456
6 to 40 employees	0.332	0.336	0.345	0.323	0.310
41 to 100 employees	0.078	0.129	0.103	0.094	0.109
More than 100 employees	0.156	0.139	0.182	0.154	0.126
Sector					
Primary activities	0.004	0.004	0.008	0.006	0.004
Manufacturing	0.099	0.176	0.124	0.130	0.162
Electricity, gas and water	0.073	0.067	0.096	0.064	0.076
Construction	0.024	0.014	0.011	0.015	0.004
Wholesale and retail	0.302	0.302	0.254	0.345	0.227
Transport and communication	0.123	0.128	0.107	0.133	0.112
Accommodation and food services	0.055	0.062	0.116	0.063	0.072
Finances and professional activities	0.117	0.043	0.090	0.085	0.119
Education, human health and social work	0.097	0.076	0.054	0.062	0.094
Art, entertainment and other services	0.105	0.128	0.130	0.097	0.133
N	**606**	**1,403**	**423**	**1,301**	**335**

Table A.2: Fraction of the Population Aged 16 to 49 with Permanent Difficulties or Limitations by Province, 2010

Province	
La Rioja	0.129
Salta	0.123
Jujuy	0.111
Santiago del Estero	0.118
Chaco	0.116
Catamarca	0.114
San Juan	0.110
Neuquén	0.110
Misiones	0.109
Formosa	0.104
Río Negro	0.103
Tucumán	0.099
Corrientes	0.093
Chubut	0.092
Santa Cruz	0.090
San Luis	0.088
Mendoza	0.084
Argentina	0.083
Santa Fe	0.077
Tierra del Fuego	0.076
Córdoba	0.075
Buenos Aires	0.074
La Pampa	0.072
Entre Ríos	0.071
CABA	0.058

Source: 2010 Argentina Population and Housing Census developed by the National Institute of Census and Statistics (INDEC).

Table A.3: Type and Number of Difficulties Among the Population Aged 16 to 49 with Permanent Difficulties or Limitations

	Argentina		**Córdoba province**	
	Total	**Informal, self-employed, unemployed, or family worker**	**Total**	**Informal, self-employed, unemployed, or family worker**
	(1)	(2)	(3)	(4)
Visual only	0.518	0.526	0.580	0.592
Hearing only	0.060	0.065	0.061	0.068
Motor only	0.158	0.165	0.131	0.135
Cognitive only	0.084	0.073	0.073	0.058
Two difficulties	0.128	0.124	0.111	0.109
Three difficulties or more	0.052	0.047	0.045	0.038
N	1,609,490	580,935	118,217	46,116

Source: 2010 Argentina Population and Housing Census developed by the National Institute of Census and Statistics (INDEC).

Table A.4: Characteristics of the Population Aged 16–49 by Presence of Permanent Difficulties or Limitations, Córdoba Province, 2010

	Total			Informal, self-employed, unemployed, or family worker		
	With difficulties	**Without difficulties**	**Diff.**	**With difficulties**	**Without difficulties**	**Diff.**
Gender						
Female	0.537	0.505	0.032**	0.504	0.460	0.044**
Relationship to household head						
Head	0.384	0.328	0.056**	0.427	0.333	0.094**
Marital status						
Single	0.590	0.634	-0.044**	0.596	0.674	-0.078**
Children (females only)						
Has children	0.671	0.620	0.051**	0.710	0.624	0.086**
Highest education level completed						
Primary incomplete	0.121	0.057	0.064**	0.130	0.073	0.057**
Primary complete	0.212	0.147	0.065**	0.227	0.177	0.050**
Secondary incomplete	0.249	0.264	-0.016**	0.256	0.280	-0.024**
Secondary complete	0.178	0.202	-0.024**	0.185	0.195	-0.010**
Higher education incomplete	0.139	0.188	-0.049**	0.121	0.155	-0.034**
Higher education complete	0.102	0.142	-0.041**	0.080	0.120	-0.040**
School attendance						
Attends school	0.161	0.209	-0.047**	0.126	0.159	-0.033**
Type of school						
(only those who attend or attended)						
Special	0.044	0.001	0.043**	0.022	0.001	0.021**
Region						
Córdoba (capital)	0.547	0.491	0.056**	0.555	0.470	0.085**
Northwest Córdoba (*)	0.145	0.128	0.016**	0.146	0.143	0.003
Rest	0.308	0.380	-0.072**	0.299	0.387	-0.088**
Country of birth						
Foreign-born	0.018	0.017	0.001	0.025	0.023	0.002
Health coverage						
No health coverage	0.431	0.366	0.065**	0.621	0.569	0.052**
Pension or retirement benefits						
Receives benefits	0.131	0.025	0.106**	0.085	0.022	0.064**
Type of benefits						
(only those who receive benefits)						
Retirement only	0.166	0.195	-0.029**	0.130	0.135	-0.005
Pension only	0.093	0.160	-0.068**	0.110	0.168	-0.057**
Both	0.022	0.021	0.001	0.012	0.018	-0.006
Non-contributory pension only	0.720	0.624	0.096**	0.749	0.679	0.069**
Observations	118,217	1,464,636		46,116	553,810	

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

Source: 2010 Argentina Population and Housing Census developed by the National Institute of Census and Statistics (INDEC).

Note: (*) The northwest of Córdoba province includes the departments of Cruz del Eje, Ischilín, Minas, Pocho, Punilla, Río Seco, San Alberto, San Javier, Sobremonte, and Tulumba.

Table A.5: Labor Outcomes of the Population Aged 16–49 by Presence of Permanent Difficulties or Limitations, Córdoba Province, 2010

	Total			Informal, self-employed, unemployed, or family worker		
	With difficulties	**Without difficulties**	**Diff.**	**With difficulties**	**Without difficulties**	**Diff.**
Employment relationship						
Employer	0.037	0.049	-0.012***	-	-	-
Self-employed	0.143	0.130	0.012***	-	-	-
Formal employee	0.260	0.329	-0.069***	-	-	-
Informal employee	0.167	0.175	-0.008***	-	-	-
Family worker	0.023	0.024	-0.002	-	-	-
Unemployed	0.058	0.049	0.009***	-	-	-
Inactive	0.311	0.243	0.069***	-	-	-
Sector (employees only)						
Public	0.227	0.218	0.009**	0.092	0.068	0.024**
Firm size (employed only)						
1 to 5 employees	0.549	0.499	0.050**	0.758	0.744	0.014**
6 to 25 employees	0.204	0.225	-0.021**	0.153	0.173	-0.019**
26 to 100 employees	0.108	0.121	-0.012**	0.047	0.046	0.001
More than 100 employees	0.138	0.154	-0.016**	0.042	0.037	0.004
Industry (employed only)						
Agriculture, forestry and fishing	0.053	0.064	-0.010**	0.054	0.072	-0.018**
Mining	0.002	0.001	0.000	0.001	0.001	-0.000
Manufacturing	0.142	0.133	0.009**	0.153	0.142	0.011**
Electricity, gas and steam	0.004	0.004	0.001	0.003	0.002	0.001
Water supply, sewerage and waste	0.009	0.007	0.002**	0.007	0.004	0.003**
Construction	0.073	0.075	-0.002	0.088	0.106	-0.018**
Wholesale, retail trade and vehicle repair	0.178	0.183	-0.005	0.203	0.197	0.006
Transport and storage	0.058	0.063	-0.006**	0.049	0.056	-0.007**
Accommodation and food service	0.028	0.030	-0.002	0.032	0.037	-0.005**
Information and communication	0.015	0.018	-0.004**	0.013	0.016	-0.003*
Financial and insurance	0.009	0.012	-0.003**	0.007	0.011	-0.004**
Real estate	0.007	0.006	0.001	0.005	0.004	0.001
Professional, scientific and technical	0.021	0.023	-0.002*	0.021	0.021	0.001
Administrative and support	0.061	0.064	-0.003	0.058	0.058	0.000
Public administration	0.066	0.066	0.000	0.017	0.013	0.004**
Teaching	0.071	0.086	-0.015**	0.032	0.039	-0.007**
Human health and social work	0.053	0.051	0.003	0.044	0.050	-0.006**
Art, entertainment and recreation	0.007	0.008	-0.001	0.009	0.010	-0.001
Other services	0.031	0.027	0.004**	0.038	0.037	0.001
Household domestic work	0.088	0.060	0.028**	0.135	0.105	0.030**
International organizations	0.024	0.019	0.006**	0.031	0.020	0.010**
Observations	118,217	1,464,636		46,116	553,810	

*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$

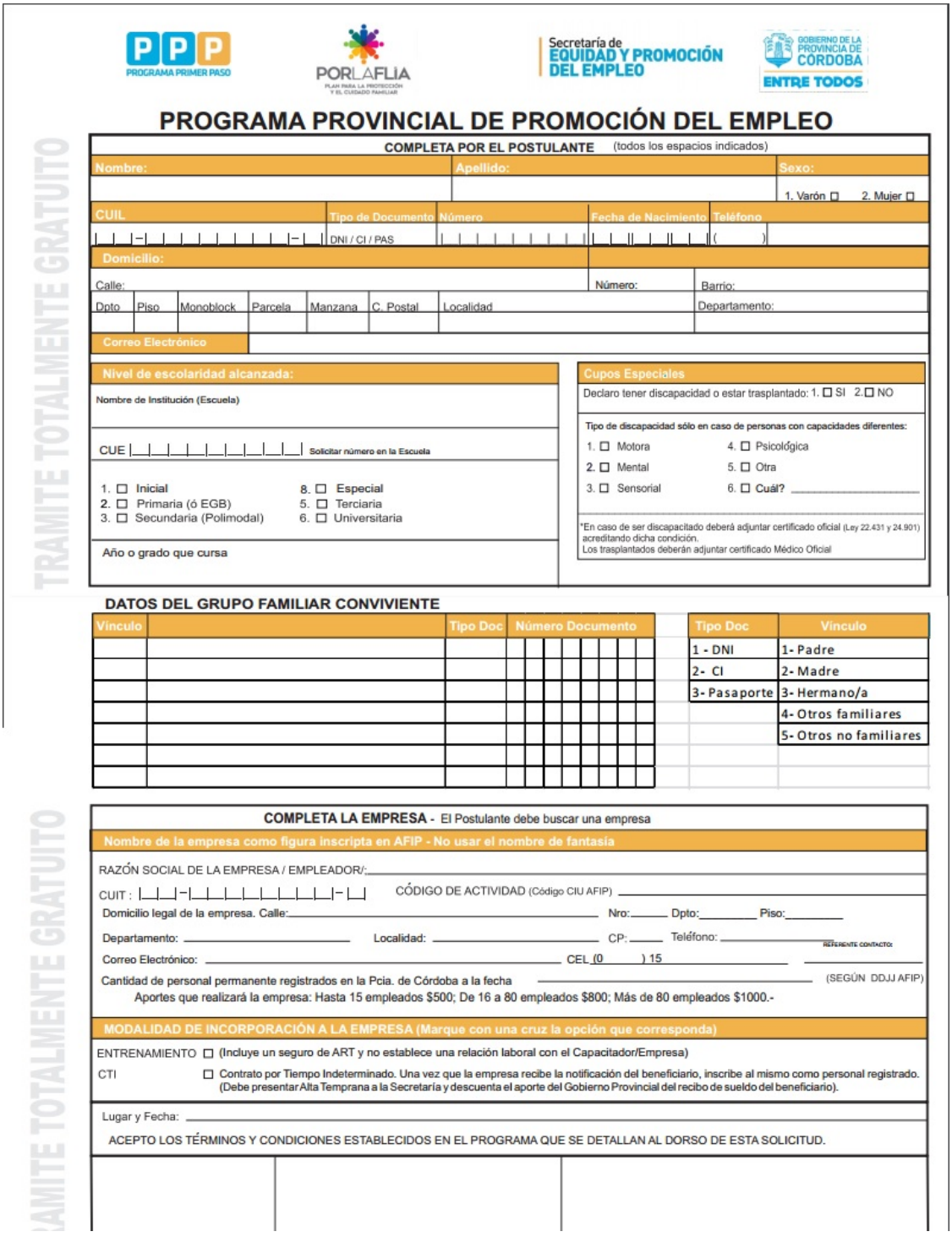
Source: 2010 Argentina Population and Housing Census developed by the National Institute of Census and Statistics (INDEC).

Table A.6: Transitions Across Sectors

	t = 3														
t = 0	Primary activities	Mining	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail	Accommodation and food services	Transport and communication	Finance	Professional activities	Public Administration	Education	Health and social services	Art, entertainment and other services	Total
Primary activities	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	1.000
Mining															
Manufacturing	0.041	0.014	0.438	0.014	0.082	0.096	0.041	0.000	0.000	0.151	0.096	0.000	0.000	0.027	1.000
Electricity, gas and water	0.000	0.000	0.229	0.343	0.114	0.000	0.000	0.029	0.057	0.029	0.200	0.000	0.000	0.000	1.000
Construction	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	1.000
Wholesale and retail	0.024	0.000	0.128	0.008	0.096	0.344	0.056	0.008	0.016	0.152	0.136	0.000	0.008	0.024	1.000
Accommodation and food services	0.000	0.000	0.033	0.000	0.033	0.233	0.467	0.000	0.000	0.133	0.033	0.000	0.000	0.067	1.000
Transport and communication	0.017	0.000	0.083	0.017	0.033	0.283	0.100	0.050	0.017	0.133	0.150	0.033	0.017	0.067	1.000
Finance	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.571	0.143	0.000	0.000	0.000	0.286	1.000
Professional activities	0.000	0.000	0.000	0.000	0.000	0.276	0.000	0.069	0.069	0.207	0.379	0.00	0.000	0.000	1.000
Public Administration	///	///	///	///	///	///	///	///	///	///	///	///	///	///	///
Education	0.000	0.000	0.091	0.000	0.000	0.091	0.091	0.000	0.000	0.091	0.364	0.000	0.182	0.091	1.000
Health and social services	0.000	0.000	0.000	0.000	0.100	0.100	0.100	0.000	0.000	0.050	0.250	0.100	0.300	0.000	1.000
Art, entertainment and other services	0.000	0.000	0.096	0.000	0.058	0.038	0.077	0.058	0.000	0.135	0.327	0.058	0.019	0.135	1.000
Total	0.016	0.002	0.152	0.034	0.074	0.197	0.083	0.025	0.025	0.132	0.174	0.016	0.025	0.047	1.000

A.1 Characteristics of People with Disabilities in the 2010 Argentina Population and Housing Census

Figure A.1: Application Form for the Primer Paso Program



PROGRAMA PRIMER PASO

PORLAFLIA
PLAN PARA LA PROTECCIÓN Y EL CUIDADO FAMILIAR

Secretaría de EQUIDAD Y PROMOCIÓN DEL EMPLEO

GOBIERNO DE LA PROVINCIA DE CÓRDOBA
ENTRE TODOS

TRAMITE TOTALMENTE GRATUITO

PROGRAMA PROVINCIAL DE PROMOCIÓN DEL EMPLEO

COMPLETA POR EL POSTULANTE (todos los espacios indicados)

Nombre: | Apellido: | Sexo: 1. Varón ☐ 2. Mujer ☐

CUIL |__|__|-|__|__|__|__|__|__|__|__|-|__| | Tipo de Documento: DNI / CI / PAS | Número: |__|__|__|__|__|__|__|__| | Fecha de Nacimiento: |__|__|/|__|__|/|__|__| | Teléfono: ( )

Domicilio:

Calle: | Número: | Barrio:

Dpto | Piso | Monoblock | Parcela | Manzana | C. Postal | Localidad | Departamento:

Correo Electrónico

Nivel de escolaridad alcanzada:

Nombre de Institución (Escuela)

CUE |__|__|__|__|__|__|__|__|__|__| Solicitar número en la Escuela

1. ☐ Inicial
2. ☐ Primaria (ó EGB)
3. ☐ Secundaria (Polimodal)
8. ☐ Especial
5. ☐ Terciaria
6. ☐ Universitaria

Año o grado que cursa

Cupos Especiales

Declaro tener discapacidad o estar trasplantado: 1. ☐ SI 2. ☐ NO

Tipo de discapacidad sólo en caso de personas con capacidades diferentes:

1. ☐ Motora
2. ☐ Mental
3. ☐ Sensorial
4. ☐ Psicológica
5. ☐ Otra
6. ☐ Cuál? _____

*En caso de ser discapacitado deberá adjuntar certificado oficial (Ley 22.431 y 24.901) acreditando dicha condición.
Los trasplantados deberán adjuntar certificado Médico Oficial

DATOS DEL GRUPO FAMILIAR CONVIVIENTE

Vínculo		Tipo Doc	Número Documento

Tipo Doc	Vínculo
1 - DNI	1- Padre
2- CI	2- Madre
3- Pasaporte	3- Hermano/a
	4- Otros familiares
	5- Otros no familiares

TRAMITE TOTALMENTE GRATUITO

COMPLETA LA EMPRESA - El Postulante debe buscar una empresa

Nombre de la empresa como figura inscripta en AFIP - No usar el nombre de fantasía

RAZÓN SOCIAL DE LA EMPRESA / EMPLEADOR/: _____

CUIT : |__|__|-|__|__|__|__|__|__|__|__|-|__| CÓDIGO DE ACTIVIDAD (Código CIU AFIP) _____

Domicilio legal de la empresa. Calle: _____ Nro: ____ Dpto: ____ Piso: ____

Departamento: _____ Localidad: _____ CP: ____ Teléfono: _____ REFERENTE CONTACTO:

Correo Electrónico: _____ CEL (0) 15 _____

Cantidad de personal permanente registrados en la Pcia. de Córdoba a la fecha _____ (SEGÚN DDJJ AFIP)

Aportes que realizará la empresa: Hasta 15 empleados $500; De 16 a 80 empleados $800; Más de 80 empleados $1000.-

MODALIDAD DE INCORPORACIÓN A LA EMPRESA (Marque con una cruz la opción que corresponda)

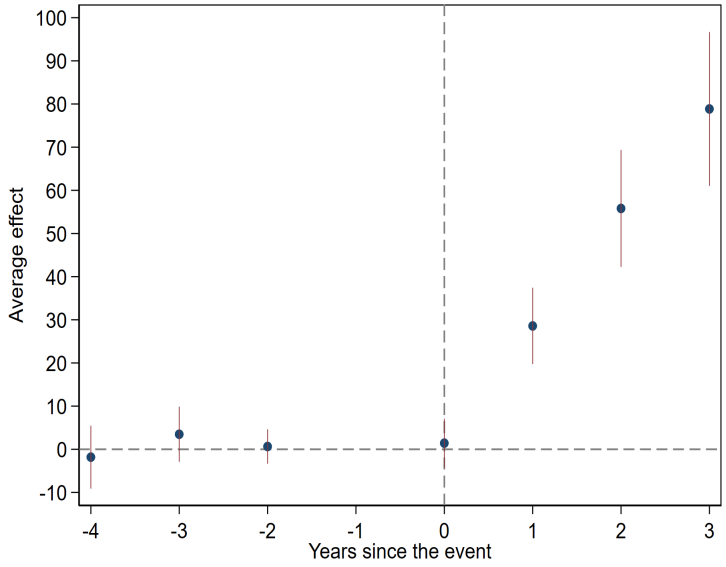
ENTRENAMIENTO ☐ (Incluye un seguro de ART y no establece una relación laboral con el Capacitador/Empresa)

CTI ☐ Contrato por Tiempo Indeterminado. Una vez que la empresa recibe la notificación del beneficiario, inscribe al mismo como personal registrado. (Debe presentar Alta Temprana a la Secretaría y descuenta el aporte del Gobierno Provincial del recibo de sueldo del beneficiario).

Lugar y Fecha: _____

ACEPTO LOS TÉRMINOS Y CONDICIONES ESTABLECIDOS EN EL PROGRAMA QUE SE DETALLAN AL DORSO DE ESTA SOLICITUD.

Figure A.2: Estimated Effect on Monthly Labor Earnings



Note: The outcome variable is the gross monthly wage, expressed in constant 1995 pesos, which at that time were pegged one-to-one to the U.S. dollars. It is coded as zero for individuals who are not employed. Circles show point estimates from the regression adjustment estimator proposed by Callaway and Sant'Anna (2021), with red vertical lines indicating the corresponding 95% confidence intervals. This event study is estimated using not-yet-treated units as the comparison group (i.e., individuals with disabilities who had not yet been exposed to the treatment by a specific year). The regression includes year and age fixed effects. Standard errors are clustered at the individual level.