

working paper

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Disability and Labor Inclusion: Experimental Evidence from Spain

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Abstract

People with intellectual and developmental disabilities (PID) show significantly lower labor force participation and employment rates compared to people without disabilities. Customized Employment (CE) has emerged as a promising approach to improve their labor market integration. This study provides the first causal evidence on CE's effectiveness relative to the traditional Supported Employment approach through a randomized controlled trial in Spain. Our findings show that CE substantially improves employability by increasing employment probability, hours worked, and the number of labor contracts. It also enhances participation in training programs and internships. Beyond employment, CE significantly fosters social inclusion and well-being, with effects varying based on severity of disability, recognition of dependency, and family involvement. These results underscore CE's potential as an effective strategy for improving both labor market outcomes and social integration of PIDs.

JEL Codes: J14, J21, I31, I38, C93.

Keywords: Customized employment, supported employment, disability, labor market inclusion, social integration, field experiment, Spain.

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1 Introduction

Customized Employment (CE) has gained traction in recent years as an innovative approach to improve the labor market integration of individuals with significant disabilities. Building upon Supported Employment (SE), CE aims to tailor job opportunities to the strengths and interests of people with intellectual and developmental disabilities (PID). However, despite its growing adoption, there is limited causal evidence on its effectiveness compared to traditional job search methodologies.

This paper presents findings from a randomized controlled trial (RCT) designed to assess the impact of CE relative to SE on PID employment outcomes, social inclusion, and well-being in Spain. Our results indicate that CE significantly increases employability, measured by the probability of being employed, the number of labor contracts secured, and total hours worked. In addition, we find that it increases participation in training and internship opportunities. Furthermore, CE leads to substantial improvements in social inclusion and well-being. We also document heterogeneous effects, showing that the impact of CE varies depending on the degree of disability, the recognition of dependence, and the level of family involvement in the PID's employment process.

CE was originally developed in 2001 by the United States Department of Labor to promote the inclusion of individuals with intellectual disabilities in the labor market. The method consists of four key phases to facilitate the creation of employment opportunities that align with both employer needs and the unique abilities of job seekers.

In Spain, PIDs show markedly worse labor market outcomes than those of the population at large, in terms of both lower labor force participation and employment rates. They are also at a disadvantage in terms of social inclusion and well-being. Therefore, it is important to improve the help received by PIDs for their labor market integration. This study aims to evaluate the effectiveness of CE compared to the traditional SE used by [Confederación Plena inclusión España](#) (PI), a non-governmental organization that supports PIDs and their families by promoting social inclusion and improving quality of life.¹

¹PI collaborated with the General Secretariat for Inclusion and a research team coordinated by CEMFI and J-PAL Europe in the design of the RCT, actively participating in the provision of the necessary information for the design, monitoring, and evaluation of the social inclusion project.

This study employs a two-arm RCT, in which the treatment group received support through CE while the control group followed SE. Participants were drawn from PIDs registered with PI, who met eligibility criteria in terms of age, degree of disability, education, and employment status. Stratified randomization ensured balanced selection into the study and assignment to treatment or control groups. The trial spanned from May 2022 to December 2023, with interventions taking place from September 2022 to July 2023.

The data for this study come from surveys conducted at four points during the RCT, supplemented by administrative records of PIDs' employment histories. We conducted a baseline survey in September 2022, two follow-up surveys in January-February 2023 ($Post_1$) and June-July 2023 ($Post_2$), and an endline survey in December 2023 ($Post_3$).

Given the direct involvement of individuals with intellectual disabilities, we collected information from three sources: the PIDs themselves and their families, and professionals supporting. These multiple perspectives allow for a comprehensive evaluation of employment, social inclusion, and well-being outcomes while also enabling an analysis of program implementation quality.

To estimate the causal impact of CE relative to SE, we use an ANCOVA specification, providing intention-to-treat (ITT) estimates for each post-baseline round while adjusting for any initial imbalances. We also examine implementation fidelity, compliance, and attrition, ensuring robustness in our findings. Attrition rates were low (2.54%), with no evidence of differential dropout rates between the treatment and control groups. Our results confirm that CE was effectively implemented and adhered to by professionals in the treatment group.

Our analysis reveals that CE significantly enhances employability. Specifically, PIDs in the treatment group were 7 percentage points (pp) more likely to be employed and worked 1.4 more hours than those in the control group at the $Post_2$ survey. Although this effect diminishes by December 2023, the number of contracts per individual remains significantly higher in the treatment group, with an increase of 0.11 contracts at $Post_2$ and 0.15 at $Post_3$. Additionally, CE leads to more participation in training and internship opportunities: those in the treatment group were 10 pp more likely to have completed training in a regular setting during the treatment period (by $Post_1$), with this effect growing to 23

pp by December 2023. Furthermore, PIDs supported through CE completed 0.43 more internships in the previous year by $Post_3$ compared to the control group. However, despite the encouraging survey-based results, administrative data do not show significant effects on employment status.

Beyond employment outcomes, we find that CE has remarkably positive impacts on social inclusion and well-being. The social inclusion indicator rises by 0.78 standard deviations in $Post_1$ and $Post_3$, reaching 0.94 in $Post_2$. The well-being indicator also improves, with increases of 0.31 and 0.21 standard deviations in $Post_2$ and $Post_3$, respectively. Additionally, the probability of engaging in volunteering activities rises by 11 pp to 20 pp across all three rounds. These effects are robust across various measures, including self-esteem and satisfaction related to having a work-life project.

Heterogeneity analyses indicate that the impact of CE varies by the degree of disability, recognition of dependency, and family involvement. Our results show that individuals with a disability degree above 65% experience a larger increase in social inclusion, while those below this threshold initially see a temporary reduction in hours worked. Additionally, CE increases the number of labor contracts primarily for those without official dependency recognition, while those with recognized dependency benefit from more unpaid internships. Lastly, PIDs with low family involvement at baseline experience stronger employment effects, suggesting that CE compensates for the lack of family support in job search and employment retention.

Our findings underscore the potential of CE as an effective strategy for improving labor market integration and social outcomes for PIDs. By tailoring employment opportunities to individual strengths and fostering deeper employer engagement, CE provides a promising alternative to traditional employment support models. The positive impacts on training, internships, and social inclusion suggest that this methodology could be a valuable tool for policymakers seeking to enhance the employability and well-being of individuals with intellectual disabilities.

This paper contributes to the literature on the effectiveness of employment support methodologies for people with disabilities by providing causal evidence on the impact of CE compared to SE. While numerous reviews and meta-analyses of individual placement and

support interventions—where employment and/or mental health specialists assist PIDs in securing competitive jobs while offering ongoing support—generally report positive outcomes (see [Modini et al. 2016](#); [Wehman et al. 2018](#); and [Weld-Blundell et al. 2021](#), among others), most of the existing causal evidence focuses on SE. In contrast, research on CE remains largely descriptive. [Riesen et al. \(2023\)](#) reviews the CE literature and concludes that, while this methodology appears to generate quality employment outcomes for people with disabilities, no study has employed an RCT to rigorously evaluate its impact. Our study fills this gap by providing the first causal evidence from an RCT, directly comparing the effectiveness of CE to SE.

The rest of the paper is organized as follows. Sections 2 and 3 describe CE and the context of our study, respectively. Then, Section 4 describes our design, Section 5 details the data used and Section 6 explains our empirical strategy. Section 7 presents the results, heterogeneity analysis, and robustness checks. Finally, Section 8 concludes.

2 Customized Employment Methodology

CE was developed in 2001 by the United States Department of Labor to facilitate the integration of individuals with intellectual disabilities into the labor market and enhance their social inclusion and well-being. The model is designed to align the strengths and interests of PIDs with labor market needs, thereby fostering mutually beneficial employment opportunities. CE comprises four distinct phases: discovery, planning, negotiation, and support ([Rehabilitation Services Administration, 2017](#)).

The methodology begins with the discovery phase, a person-centered exploration of an individual’s strengths, preferences, interests, and needs. This phase actively involves the PID’s family and immediate support network. Activities include establishing support circles, conducting family interviews, and visiting companies to develop a comprehensive work profile for the PID.

Next, the planning phase involves identifying potential employers whose needs align with the PID’s work profile. Professionals, i.e. caseworkers, draw up a list of companies that might be a good fit and engage these companies through informational interviews to refine

the match and further tailor the work profile.

The third phase, negotiation, begins when the professional identifies ways in which the PID can contribute meaningfully to a business. After selecting potential employers during the planning phase, the professional identifies, jointly with the PID, at least three companies and conducts informational interviews or guided visits to understand the workplace needs and define potential tasks. Once a suitable company is identified, an employment proposal is formulated considering the talents of the PID, the working conditions, and the potential value they bring to the employer.

Finally, the support phase begins once the PID secures employment or an internship. A structured support plan is established to facilitate workplace integration and job retention.

Main Differences with Supported Employment

CE and SE differ in intensity, approach to employability, and job creation mechanisms. CE is significantly more intensive than SE. For example, SE relies on assessments such as internships, in-house training, or volunteering to evaluate a PID's capabilities. In contrast, CE employs a more comprehensive approach, involving direct engagement with the PID's environment, support network, and prospective employers.

In terms of the approach to employability, SE focuses on equipping PIDs with skills to meet labor market demands, whereas CE emphasizes the PID's intrinsic strengths and interests, identifying workplaces that can benefit most from their capabilities. Additionally, job creation processes differ: in SE, professionals seek existing job openings and assess employer willingness to hire a PID. CE, on the other hand, collaborates with employers to design customized job positions that optimize employment conditions for PIDs. Informational interviews with companies further expand employment possibilities by providing insights into the job, the workplace needs, and other companies doing similar work. Appendix Table [A1](#) outlines the key differences between the two methodologies.

3 Context of the Study

In Spain, PIDs exhibit significantly lower labor market participation and employment rates than individuals without disabilities. In 2022, approximately 201,000 individuals aged 16 to 64 had intellectual disabilities, representing 0.7% of the working-age population and 10.4% of all individuals with disabilities in this age group ([Instituto Nacional de Estadística, 2023](#)).² Their labor market participation and employment rates stood at 36.4% and 23.8%, respectively, in stark contrast to the general population’s 78% and 68.1%. Employment is a crucial determinant of well-being, as it has been linked to higher life satisfaction, self-esteem, and self-control.

Beyond employment challenges, people with disabilities, of any type, experience social exclusion and reduced well-being. People with disabilities face a higher poverty and social exclusion rate (31%) compared to those without disabilities (22.7%) ([European Anti-Poverty Network España, 2024](#)). Social isolation is also prevalent: 43% of individuals with intellectual disabilities surveyed in the 2020 Survey on Disability, Personal Autonomy, and Dependency Situations ([Instituto Nacional de Estadística, 2022](#)) reported no social interactions with friends, neighbors, or acquaintances in the past year. Additionally, 13% reported experiencing discrimination due to their disability in social relationships, leisure activities, travel, or the workplace.³

[Confederación Plena inclusión España](#) is a confederation of Spanish NGOs that support PIDs and their families by promoting their social inclusion and improving their quality of life. In 2019, PI piloted the use of CE in Spain to assess its feasibility to improve the assistance received by PIDs to integrate into the labor market ([Plena Inclusión España, 2018](#)). However, the pilot was neither a randomized trial nor sufficiently large to yield conclusive results.

This study provides causal evidence on the effectiveness of CE compared to SE, the traditional methodology used by PI. The intervention was implemented across PI federations in twelve autonomous communities (Andalucía, Aragón, Canarias, Castilla y León, Cataluña,

²The figures correspond to people with a degree of disability of at least 33% that is officially recognized.

³These percentages correspond to the population aged 6 or older.

Comunidad de Madrid, Comunitat Valenciana, Extremadura, Galicia, La Rioja, Principado de Asturias, and Región de Murcia) and the autonomous city of Ceuta. A total of 44 entities participated, some operating in multiple locations, resulting in 58 localities (combinations of geographic areas and entities). PI maintained close contact with these entities throughout the implementation process to ensure consistent methodology and execution.

4 Study Design

Our study uses a two-arm randomized experiment, with the treatment group receiving support through CE and the control group through SE. Participants were recruited from PIDs registered with PI who met eligibility criteria, using stratified randomization for both selection into the study and group assignment. The study period extends from May 2022 to December 2023.

4.1 Experimental Design

This experiment has a straightforward design with one treatment group and one control group, using stratified randomization at the individual level. The study considered three groups of people who would be key to the project: PIDs, professionals supporting them, and PIDs' families.

The initial design targeted a sample of 502 PIDs, evenly distributed between the treatment and control groups through stratified randomization. For ethical reasons, the study does not include a pure control group. Given the high demand for assistance and the challenging circumstances faced by PIDs, it was deemed inappropriate to withhold support entirely. Consequently, the control group received the standard support services provided by PI through SE, while the treatment group received services through CE, as described in Section 2. The sample of PIDs was randomly assigned into the RCT arms, stratifying by gender and locality, where locality is a combination of location and entity.

To mitigate concerns regarding potential contamination between treatment arms, separate professionals were assigned to each group. A total of 72 professionals were designated

to support participants in the treatment group, while a different set of 62 professionals assisted participants in the control group. Professionals assigned to the treatment group received specialized training in CE and were required to pass an examination (details on the training are provided in Section 5.1).

Beyond the direct participants and professionals, the involvement of the PID’s family was integral to the project. At least one family member per selected PID was invited to participate in interviews at all stages and contribute to the support process. Participation in the study required informed consent from all three groups—PIDs, supporting professionals, and family members.

4.2 Recruitment of Participants

Project participants were randomly selected among PIDs registered in any of the PI’s implementing federations, who met some eligibility criteria. The requirements to participate in the study were four: (i) age between 21 and 50 years; (ii) disability degree between 33% and 65%; (iii) not having a higher education degree or being enrolled in higher education; and (iv) being unemployed or working less than 20 hours per week. However, due to insufficient initial sample size, some entities relaxed some of the first three requirements, with the relaxation of the maximum degree of disability being the most important in terms of additional participants.⁴ From a set of 2,696 potential beneficiaries, a sample of 1,667 was obtained with PIDs that met the criteria.

Using stratified randomization by gender and locality, a sample of 506 participants was selected as the initial sample. The remaining 1,161 PIDs formed the pool of potential reserves from which, using the same criteria, new participants were drawn to replace those who dropped out during the first few weeks of the intervention. In this process, 512 PIDs completed the initial survey, to reach the target of 502 PIDs established in the original study design. These 512 PIDs constitute the main sample in our analysis, with

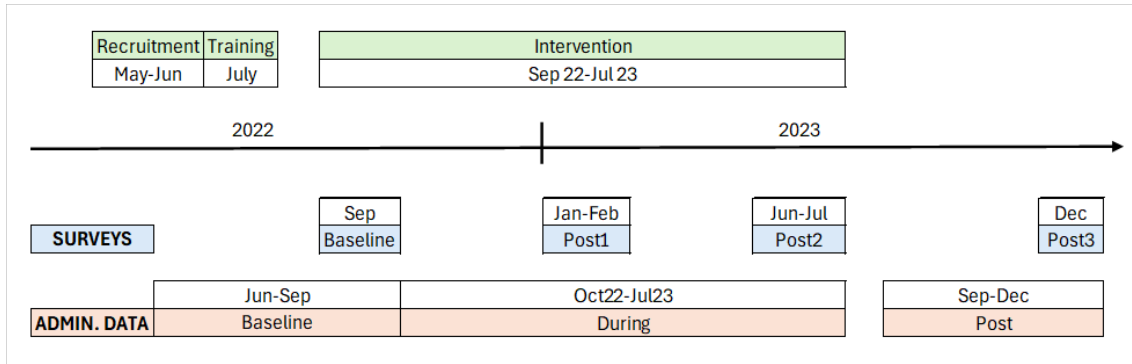
⁴There were four potential beneficiaries aged above 51, 31 with a degree of disability above 65%, and five with short higher education degrees (junior college), affecting 17 institutions. Of the final sample of 512 participants, only one was 52 years old and one was 20 years old by the time of the baseline. In terms of education, only one participant had a higher education degree. Finally, 56 participants had a disability degree above 65%, with a maximum degree of 78%.

259 corresponding to the treatment group and 253 to the control group.

4.3 Timeline

Figure 1 details the timeline in this study, which runs from May 2022 through December 2023. Recruitment of participants was done between May and June 2022, and a short survey was completed in July to determine whether they met the eligibility criteria described in Section 4.2 to identify the set of potential beneficiaries. Random assignment into the project and into treatment arms was done between July and October.⁵ In addition to this, in July, the professionals in the treatment group received training in CE, whereas the professionals assisting the control group already had experience in SE. The interventions started in mid-September 2022, going until July 2023, thus lasting eleven months. The timeline of the surveys and administrative data is described in the next section.

Figure 1: Timeline



5 Data: Surveys and Administrative Records

This paper uses data collected through surveys conducted at four different times during the RCT, as well as administrative records on PID employment histories. Given that the direct beneficiaries were individuals with intellectual and developmental disabilities, it

⁵Randomization done in September and October corresponds to the selection of PIDs among the remaining list of potential beneficiaries, to replace initial participants who dropped out of the study during the first few weeks of implementation.

was deemed important to obtain information from three informants: the PIDs themselves, the professionals supporting them, and the PID’s families. Apart from our main outcome indicators, we obtain implementation measures and demographic information from all informants, that are key to analyze balance at baseline between treatment and control groups

To assess both the implementation of the intervention and its short- and medium-term impacts, surveys were administered at four rounds. As illustrated in Figure 1, the baseline survey was conducted in September 2022. Two additional surveys were carried out while the intervention was still ongoing: the $Post_1$ survey, between January and February 2023, and the $Post_2$ survey, between June and July 2023. Finally, a follow-up survey, the $Post_3$, was administered in December 2023.

Each of these surveys included different questionnaires tailored to each group of informants: PIDs, professionals, and the PID’s families. First, PIDs answered a questionnaire about their own experiences, which was adapted by PI into an easy-to-read format suited to this population. This included questions about their employment, labor and social inclusion, and well-being. The same questions were asked to the PID’s families and to the professionals assisting them, who replied about the PID’s outcomes from their own perspective. Additionally, demographic information about the PID was collected from both professionals and family members, who also answered demographic questions about themselves. Lastly, professionals responded to questions related to training, inputs, and products to assess the implementation of the intervention.

In addition to these rich survey data, we complement our analysis with administrative data from Social Security, which provides complete employment histories for the PIDs participating in this study. Using this information, we construct a monthly panel data set at the individual level, capturing key information about their labor market performance, based on formal relationships registered with Social Security. This includes their labor market status (working or not) and, if working, the occupation, sector of activity, and province. In addition to this, we know the start date and end date of each job spell, type of contract (temporary, discontinuous open-ended, or regular open-ended), and fraction of time if part-time, which allows us to compute the days worked and their full-time equiva-

lent, as well as labor intensity, namely days worked to total days in the period. By taking advantage of the panel structure, we can compute labor experience, and monthly dynamics into different job statuses (e.g., employment to non-employment and non-employment to employment). Section 5.2, details the outcome variables computed from these data and used in our analysis.

In terms of timing of the information coming from the administrative data, we consider the period going from four months before the start of the implementation to December 2023, dividing this period into three rounds. Hence, as depicted in Figure 1, we consider June through September 2022 as the baseline round, October 2022 to July 2023 as the intervention round, and September to December 2023 as the post-intervention round.⁶

5.1 Training and Implementation Measures

The effectiveness of CE relies on the proper training of the professionals or caseworkers supporting the PIDs and on the correct implementation of the methodology. Using data provided by the professionals, we analyze key indicators related to training and CE execution throughout the following phases: discovery, planning and negotiation (described in Section 2).

For training, we assess whether the professionals received instruction in CE and general PID employment, the number of training hours completed, and their self-efficacy in implementing CE. Additionally, for those who underwent CE training, we evaluate the perceived innovativeness of CE and their satisfaction with the training.

Implementation of the discovery phase is measured in terms of the number of visits to the PID's environment, interviews with them and their families, meetings with the circle of support, and tests and activities to identify PID's talents and to design their vocational profile. We also measure if professionals identified the PID's talents and social capital, and if they designed a vocational profile.

Then, we analyze the professionals' accomplishments in the planning phase. In particular,

⁶Note that we decided not to consider August as part of the post-period to leave one month out after the end of the intervention.

we study if they prepared a list of firms based on the vocational profile, whether they listed 20 firms for each of three vocational areas (and how many they listed in each of them), and if they designed an action plan and prepared a portfolio.

Finally, we examine the negotiation phase by assessing the number of resources (i.e., organizations, firms, volunteering opportunities) contacted in total and through the PID’s family or acquaintances, as well as the number of visits to organizations with the PID. Additionally, we evaluate the extent to which organizations in the surrounding environment are familiar with CE.

5.2 Outcome Measures

In this section we describe the outcome indicators used to analyze the main questions of this study. Specifically, we analyze CE effectiveness compared to SE over three dimensions: employment, social inclusion, and well-being.

First, we compute the PID’s employment outcomes from the professional’s replies in the surveys. In particular, we consider current employment, the number of hours of paid work per week, the number of labor contracts in the last 12 months, whether the PID completed training in regular settings in the same period, and the number of unpaid internships in the last 12 months.

These employment indicators obtained from surveys are complemented with information from the administrative data. For comparability with the surveys, we first consider whether the PID is employed in the last month of the round and the number of labor contracts in the last 12 months. Additionally, we computed the probability of being employed during each round and the number of contracts during the round as a fraction of the round’s duration in months. Moreover, we compute labor intensity as total days worked over potential days worked in the round (and its full-time equivalent), the number of months in non-employment, average employment month-to-month transitions during the round, and the probability of receiving unemployment benefits and subsidies. We also consider the quality of the contracts obtained by PIDs, by focusing on the probability of working part-time and having an open-ended contract, and the number of temporary

labor contracts in the round.⁷ Finally, we analyze the sectors in which they work.

Second, to measure social inclusion and well-being, we construct synthetic indicators following [Anderson \(2008\)](#) to aggregate information from several survey questions and the three groups of informants.⁸ The variables considered in social inclusion are the number of new places and new relationships, satisfaction with the relationships, and visibility to other people without intellectual disability through some type of labor activity. Well-being, on the other hand, is captured by questions about self-esteem, satisfaction with the quality of life, happiness, helping others, contribution to society, personal development, and self-determination. Since there are no natural units of measurement, the synthetic indicators are standardized to have zero mean and unit variance. As an additional indicator of social inclusion, we analyze the probability of having done volunteering in the last 12 months, and we consider simpler well-being indicators. For this, we evaluate specific questions on whether the PID felt valued during their work-life project and if this contributed to their satisfaction with their life, and a question that directly asked if the PID is satisfied with their life. The definitions of all the indicators from the surveys and the variables used to construct them are shown in Appendix Tables [A2](#) and [A3](#).

5.3 Descriptive Statistics

In this section, we present the descriptive statistics of the 512 PIDs included in our study sample, along with information on the professionals and family members supporting them. Additionally, we provide an overview of the implementation indicators at baseline.

Table [1](#) reports the baseline demographic characteristics and the outcome indicators of the PIDs. Consistent with Section [4.2](#), 51% of the 512 PIDs in our main sample were assigned to the treatment group, while the remaining 253 were allocated to the control group. Their geographic distribution is detailed in Appendix Table [A6](#). Women constitute

⁷In Spain, so-called discontinuous open-ended contracts allow firms to activate and deactivate employees with few restrictions. In fact, they entail similar instability as temporary contracts (see [Conde-Ruiz et al., 2023](#)). We explore two alternative definitions of open-ended contracts, either considering discontinuous open-ended contracts together with temporary ones or not, with the former being our baseline definition of stable contracts.

⁸This method aggregates information from a set of variables that seek to measure a common latent variable. Intuitively, a weighted average of all the variables is calculated, where the weight assigned to each variable is greater the lower its correlation with the others.

44% of the sample, while the mean age is 32 years. Educational attainment is generally low, with only 32% having completed more than primary education. The majority (91%) were born in Spain and 96% hold Spanish nationality. The average degree of disability is high (54%), ranging from 32% to 78%, and greater than 65% in 49% of cases (see Section 7.6 for the rationale behind this threshold). Moreover, 48% of the participants had an officially recognized dependence status and 57% received a pension. However, only 9% of PIDs have a pension that exceeds the Public Indicator of Income of Multiple Effects (IPREM by its Spanish acronym), which is below the minimum wage and was at 8,106 euros per year at baseline (2022).

Table 1: Descriptive Statistics of the PID Study Sample

	Obs.	Mean	SD	Min	Max
Treatment	512	0.51	0.50	0	1
Female	512	0.44	0.50	0	1
Age	512	31.52	7.97	20	52
Education above primary school	512	0.32	0.47	0	1
Degree of disability	502	53.53	13.43	32	78
Disability greater than 65%	502	0.49	0.50	0	1
Born in Spain	512	0.91	0.28	0	1
Spanish nationality	512	0.96	0.19	0	1
# of jobs in last 12 months	500	0.39	0.67	0	5
Recognized dependence	510	0.48	0.50	0	1
Receives pension	500	0.57	0.50	0	1
Pension above IPREM	500	0.09	0.29	0	1
Work life project (PID)	510	0.63	0.48	0	1
Work life project (family)	507	0.64	0.48	0	1
Work life project (prof.)	512	0.61	0.49	0	1
Family involvement	512	6.70	2.98	1	10
Employment	512	0.15	0.36	0	1
Hours	512	2.42	7.09	0	40
Contracts	512	0.37	0.60	0	3
Training	512	0.29	0.45	0	1
Internships	512	0.43	0.70	0	5
Social inclusion index (std.)	506	0.00	1.00	-1.40	6.54
Volunteering	512	0.09	0.29	0	1
Well-being index (std.)	271	0.00	1.00	-2.76	2.40
<i>Continued on next page...</i>					

	Obs.	Mean	SD	Min	Max
Prob. of employment	501	0.16	0.32	0	1
# of months in nonemployment	501	3.36	1.29	0	4
Prob of unemp. benefit or subsidy	501	0.04	0.19	0	1
Prob of part-time contract	123	0.73	0.44	0	1
Prob of open-ended contract	123	0.40	0.48	0	1
Labor Intensity	501	0.12	0.29	0	1
Full-Time Equivalent Labor Intensity	501	0.07	0.18	0	1
Spell duration	121	470.92	826.11	1	6118
Spell duration as a fraction of round	121	0.47	0.39	0.01	1
# of contracts in the last 12 months	501	.47	1.10	0	10
# of contracts over months in the round	501	.07	.14	0	1
# of temporary contracts	501	.35	.93	0	4
Accumulated experience	501	213	373	0	1830

Notes: prof. denotes professionals and std. means standardized. Probability of unemployment benefit and subsidy considers this probability only if the PID is nonemployed. The open-ended contract excludes discontinuous fixed-term contracts. These contracts are included as temporary contracts shown in this table. Spell duration is computed only if employed and shows total duration in days. Accumulated experience is the total days worked in the last five years (from September 2017 to September 2022). Details about the questions asked in the surveys are included in Appendix Table A3.

Baseline employment statistics highlight the challenges faced by PIDs in labor integration. While 63% of the PIDs reported having a work-life project—a structured plan for social and professional inclusion—only 15% were employed.⁹ The average number of labor contracts in the 12 months preceding the survey was 0.37, ranging from zero to three. Furthermore, 29% of the PIDs had completed training in ordinary contexts and had done on average 0.43 internships over the past 12 months.

Administrative data from Social Security further confirms the PIDs’ weak labor market attachment and the necessity of support interventions. In the four months preceding the baseline survey, PIDs were, on average, in non-employment for 3.3 months.¹⁰ When

⁹Plena Inclusión defines the work-life project as a plan with objectives and actions for social and labor inclusion, including actions to get a job and to have friendships and other relationships. The information reported by the PID’s family and by professionals are close to PID replies, with shares of 64% and 61%, respectively.

¹⁰Since Social Security data only account for formal employment, non-employment periods may reflect unemployment, labor market inactivity, or informal work arrangements.

employed, PIDs had a 73% probability of holding part-time labor contracts and a 40% probability of securing open-ended contracts. Labor intensity was low, with PIDs working an average of only 12% of the total available days in the round (7% when measured in full-time equivalent terms). Over the 12 months leading up to September 2022, PIDs had on average 0.46 contracts, with a maximum of 10. At baseline, they had on average 0.07 contracts per month, while the mean spell duration, as a fraction of total round duration was 0.47.¹¹ Moreover, while the mean work experience accumulated over the previous five years is 213 days, the median PID accumulated only eight days, underscoring the limited labor exposure of most participants.

In terms of the other two main outcomes, PIDs exhibit moderate levels of social inclusion but high levels of well-being at baseline. Table 1 shows that only 9% of the PID had engaged in volunteering activities in the past 12 months. In Appendix Table A4, we present statistics for additional variables, including the components of the synthetic indicators for social inclusion and well-being. This table shows that on average PIDs visited 0.43 new locations and had 0.75 new relationships, showing high satisfaction with the relationships (8 out of 10) according to the PIDs, although professionals reported a lower satisfaction level (5.6). Visibility in the community, on the other hand, was assessed as moderate across all informants. Regarding well-being, PIDs showed high levels of self-esteem and satisfaction, although they are somewhat lower in the opinion of the professionals and family members.

¹¹These two indicators are calculated as number of contracts in the round/round duration in months and spell duration in days/round duration in days.

Table 2: Descriptive Statistics of the Professionals

	Obs.	Mean	SD	Min	Max
Female	134	.83	.38	0	1
Age	134	39.61	9.76	23	72
Lower or upper secondary education	134	.07	.25	0	1
Post-secondary or short higher education	134	.18	.38	0	1
Master or university education	134	.75	.43	0	1
Born in Spain	134	1	0	1	1
Hours CE training	131	.12	1.07	0	12
Training in CE	131	.02	.15	0	1
Training in PID employment	131	.22	.42	0	1
Innovation of PID employment training	29	6.76	1.70	2	10
Satisfaction with PID employment training	29	7.07	1.75	2	10
Self-efficacy for CE implementation	131	5.31	2.69	1	10

Notes: Only professionals who received training in PID employment were asked about the innovative nature of the training (“How innovative has the training you have received on employment for people with intellectual and developmental disabilities been so far?”) and their satisfaction with it (“How satisfied are you so far with the training you have received on employment for people with intellectual and developmental disabilities?”). As a result, the number of observations for these two questions is 29. In contrast, all professionals responded to the question: “How effective do you think you would be at implementing the customized employment methodology for people with intellectual and developmental disabilities?” (self-efficacy for CE implementation).

Moving to the professionals, they are highly educated and had minimal prior training in CE at baseline. As shown in Table 2, 75% of the 134 professionals who assisted the PIDs in both groups had completed a university degree or higher. The majority are women (83%), with an average age of 40 years. While 22% had received training related to PID employment in the past 12 months, only 2% had received specific training in CE. This is an important factor, as the lack of prior CE knowledge minimizes concerns about potential contamination in the control group. It is worth noting that three of the 134 professionals did not complete the baseline survey regarding their demographic information. However, their background details were obtained from follow-up surveys.¹²

¹²In total, 163 professionals completed the baseline survey asking about their characteristics and previous training. However, Table 2 only includes those professionals who ended up supporting PIDs in the study sample. The demographic characteristics of the full sample of 163 closely resemble those in the table, with the exception of birthplace: 98% of the full sample were born in Spain, compared to 100% of the 134.

Table 3: Descriptive Statistics of the PID’s Family

	Obs.	Mean	SD	Min	Max
Female	507	.73	.45	0	1
Age	507	56.82	12.46	21	89
Primary education or lower	507	.36	.48	0	1
Lower or upper secondary education	507	.23	.42	0	1
Post-secondary or short higher education	507	.15	.36	0	1
Master, university or PhD education	507	.27	.44	0	1
Spanish nationality	507	.96	.19	0	1
Relationship with PID					
Mother	507	.55	.50	0	1
Father	507	.17	.38	0	1
Sibling	507	.08	.27	0	1
Other relative	507	.05	.21	0	1
Legal guardian	507	.02	.13	0	1
Professional or close reference person	507	.14	.34	0	1

Notes: Respondents were asked to indicate their relationship with the PID by selecting only one of the following options: mother, father, sibling, another family member (e.g., grandparent, aunt/uncle), legal guardian without family ties, or professional/person closely connected to the PID. This professional is different from the 134 professionals described in Table 2.

Table 3 presents descriptive statistics for the PID’s family members. As outlined in Section 4.1, at least one family member per selected PID was invited to participate in interviews at all stages and contribute to the support process. However, participation was voluntary, and 14% of the PIDs were supported by a professional or close reference person. Additionally, 2% of the cases involved a legal guardian with no family ties to the PID. The remaining 84% of supporters were relatives, most commonly the mother (55%) or father (17%). Therefore, for simplicity, we refer to this group of informants and people supporting the PID as *family* throughout this paper. Among this group, 73% were women and their average age was 57 years. Educational attainment varied, with 36% having only primary education or less, while 27% had attained a university degree or higher.

Finally, Appendix Table A5 provides baseline statistics for CE implementation indicators. Notably, nearly all CE-related activities had yet to be implemented at baseline. This confirms that the support received by PIDs prior to the intervention was not structured under CE principles, highlighting the potential for improvement in their employability

outcomes through CE-based support.

5.4 Balance between Treatment and Control Groups

We assess the balance between treatment and control groups based on information provided by the three groups of informants.

Table 4 presents balance tests for PID demographic characteristics and labor market outcomes. As evidenced by the p -values of the pairwise t -tests, all socio-demographic variables are well balanced between groups. However, some employment and social inclusion outcomes exhibit statistically significant differences at baseline despite randomization. Specifically, the probability of being employed is 10 percentage points (pp) higher in the control group and PIDs in this group reported more hours worked in the past week. Additionally, PIDs in the control group were 8 pp less likely to have participated in volunteering and their social inclusion index was slightly higher (significant at the 10% level).

Administrative labor market data confirm these imbalances. PIDs in the control group had a higher probability of being employed in the baseline round, fewer months in non-employment, and greater labor intensity. Appendix Table A8 reports the balance test for additional PID variables. In line with their higher social inclusion index, PIDs in the control group had participated in more new places and had more new relationships in the 12 months before the baseline survey. These imbalances are accounted for in our empirical specification.

Table 4: Balance between Treatment and Control Groups

Variable	(1) Control		(2) Treatment		(2)-(1) Pairwise t -test	
	Obs.	Mean(Var)	Obs.	Mean(Var)	Obs.	p -value
Female	253	0.42 (1.08)	259	0.45 (1.13)	512	0.45
Age	253	31.37 (293.28)	259	31.66 (275.48)	512	0.67
Education above primary	253	0.32 (0.97)	259	0.33 (1.00)	512	0.86
Degree of disability	251	53.21	251	53.86	502	0.54
<i>Continued on next page...</i>						

Variable	Obs.	(1) Control Mean (Var)	Obs.	(2) Treatment Mean (Var)	(2)-(1) Pairwise <i>t</i> -test Obs. <i>p</i> -value	
		(787.38)		(796.90)		
Disability greater than 65%	251	0.48 (1.10)	251	0.50 (1.10)	502	0.63
Born in Spain	253	0.91 (0.37)	259	0.92 (0.34)	512	0.71
Spanish nationality	253	0.97 (0.14)	259	0.95 (0.20)	512	0.46
# of jobs in last 12 months	251	0.43 (2.13)	249	0.35 (1.74)	500	0.20
Recognized dependence	251	0.48 (1.10)	259	0.49 (1.14)	510	0.85
Receives pension	251	0.54 (1.09)	249	0.59 (1.05)	500	0.10
Pension above IPREM	251	0.08 (0.32)	249	0.10 (0.41)	500	0.26
Work life project (PID)	251	0.63 (1.03)	259	0.63 (1.06)	510	1.00
Work life project (family)	248	0.64 (1.02)	259	0.63 (1.06)	507	0.77
Work life project (prof.)	253	0.58 (1.08)	259	0.63 (1.06)	512	0.16
Family involvement	253	6.52 (41.21)	259	6.86 (38.15)	512	0.21
Employment	253	0.20 (0.70)	259	0.10 (0.42)	512	0.02**
Hours	253	3.30 (303.57)	259	1.56 (140.77)	512	0.02**
Contracts	253	0.40 (1.73)	259	0.33 (1.43)	512	0.15
Training	253	0.29 (0.92)	259	0.28 (0.91)	512	0.70
Internships	253	0.43 (2.35)	259	0.44 (2.06)	512	0.84
Social inclusion index (std.)	247	0.08 (4.67)	259	-0.07 (4.22)	506	0.08*
Volunteering	253	0.05 (0.22)	259	0.13 (0.51)	512	0.00***
Well-being index (std.)	125	0.01 (2.82)	146	-0.01 (3.37)	271	0.86
Prob. of employment	250	0.19	251	0.13	501	0.03**
<i>Continued on next page...</i>						

Variable	Obs.	(1) Control Mean (Var)	Obs.	(2) Treatment Mean (Var)	(2)-(1) Pairwise <i>t</i> -test	
		(0.51)		(0.39)	Obs.	<i>p</i> -value
# of months in nonemp.	250	3.24 (8.24)	251	3.48 (6.22)	501	0.03**
Prob unemp. benef. or subs.	250	0.04 (0.11)	251	0.05 (0.19)	501	0.26
Prob of part-time contract	71	0.70 (0.36)	52	0.76 (0.33)	123	0.40
Prob of open-ended contract	71	0.41 (0.42)	52	0.39 (0.43)	123	0.85
Labor Intensity	250	0.15 (0.41)	251	0.10 (0.30)	501	0.04**
FTE Labor Intensity	250	0.09 (0.18)	251	0.05 (0.10)	501	0.02**
Spell duration	70	550.29 (1.77e+06)	51	361.99 (415633.88)	121	0.13
Spell duration/round	70	0.49 (0.26)	51	0.45 (0.27)	121	0.56
# of contracts last 12 months	250	0.55 (7.93)	251	0.38 (2.61)	501	0.16
# of contracts/months in round	250	0.09 (0.10)	251	0.06 (0.08)	501	0.05*
# of temporary contracts	250	0.40 (4.32)	251	0.29 (3.25)	501	0.14
Accumulated experience	250	230 (654226)	251	195 (564429)	501	0.21

Notes: prof. denotes professionals and std. means standardized. Probability of unemployment benefit or subsidy considers this probability only if the PID is nonemployed. The open-ended contract excludes discontinuous fixed-term contracts. These contracts are included in the temporary contracts shown in this table. Spell duration is computed only if employed, and shows total duration in days. Accumulated experience is the total days worked in the last five years (from September 2017 until September 2022). Details about the questions asked in the surveys are included in Appendix Table [A3](#).

The characteristics of professionals and family are generally balanced between treatment and control groups. Appendix Tables [A9](#) and [A10](#), respectively, show their balance tests. The only significant differences observed are that professionals in the control group are, on average, four years older and that 5% of them reported prior CE training, compared to none in the treatment group.

Finally, Appendix Table A7 presents the balance test for the implementation indicators, confirming that all indicators are well balanced between treatment and control. The only exception is the number of organizations contacted, which remains very low in both groups but is slightly higher in the treatment group (0.06) compared to the control group (0.04), with the difference being significant at the 10 % level.

6 Empirical Strategy

We estimate the causal impact of CE compared to SE using an ANCOVA specification, obtaining the intention-to-treat (ITT) estimate in each round after the baseline while controlling for any imbalances at the beginning of the study. We adjust the specification depending on the rounds of data available for the different set of outcomes.

In the case of the main outcomes obtained from the surveys, we use the following specification:

$$Y_{it} = \alpha + \beta_1 T_i + \beta_2(T_i \times Post_2) + \beta_3(T_i \times Post_3) + \gamma_2 Post_2 + \gamma_3 Post_3 + \delta X_i + \eta Y_{i,baseline} + \varepsilon_i \quad (1)$$

where Y_{it} is the main outcome of interest measured at time $t \in \{Post_1, Post_2, Post_3\}$ (all the available surveys after baseline), and $Y_{i,baseline}$ is the dependent variable value at baseline. The vector X_i includes the stratification variables (gender and locality), as well as the two most important variables with imbalances at baseline: whether the PID was employed and if they had done volunteering in the previous 12 months.¹³ T_i is a dummy variable that is equal to one if the PID was assigned to the treatment group and zero otherwise. $Post_2$ and $Post_3$ are the survey round dummies for rounds 2 and 3, respectively, and ε_i is the error term which we cluster at the locality level.¹⁴ The

¹³Note that other variables that had significant differences between the study groups at the 5% level, such as the number of hours, the number of months in nonemployment, and labor intensity are correlated with the probability of being employed for which we directly control for in all regressions. Apart from this, by including the dependent variable at baseline we directly control for them when we analyze the causal impact on these outcomes.

¹⁴Despite the randomization being done at the individual level, we cluster at the locality level because

coefficients of interest are the β s, which correspond to ITT estimates and they measure the causal effect of being assigned to CE support instead of SE, at different points in time. Specifically, the causal impact in the $Post_1$ round is captured by β_1 , whereas $\beta_1 + \beta_2$ measures this impact in $Post_2$. It is important to note that both impacts are measured while the interventions were still ongoing. Finally, $\beta_1 + \beta_3$ is the impact in December 2023 ($Post_3$), five months after the end of the intervention.

When we estimate the causal impact of CE on outcomes calculated from the administrative data, we have two rounds after baseline instead of three (as depicted in Figure 1). Therefore, we adjust the ANCOVA specification accordingly and estimate:

$$Y_{it} = \alpha + \beta_1 T_i + \beta_3 (T_i \times Post) + \gamma_3 Post + \delta X_i + \eta Y_{i,baseline} + \varepsilon_i \quad (2)$$

where in this case Y_{it} is measured at time $t \in \{During, Post\}$. Therefore, in this case, we obtain the causal effects of CE compared to SE during the intervention through β_1 , and $\beta_1 + \beta_3$ is the ITT estimate for the round post intervention.

Similarly, we need to adjust the specification for the case of implementation indicators which were measured at the baseline, $Post_1$, and $Post_2$ surveys. In this case, we estimate:

$$Y_{it} = \alpha + \beta_1 T_i + \beta_2 (T_i \times Post_2) + \gamma_2 Post_2 + \delta X_i + \eta Y_{i,baseline} + \varepsilon_i \quad (3)$$

where $t \in \{Post_1, Post_2\}$.

7 Results

In this section, we first discuss compliance and attrition in our study. We then analyze implementation indicators and present our main results on employment, social inclusion, and well-being.

outcomes might be correlated within localities and therefore we opt for a conservative approach.

7.1 Attrition

Before discussing our main results, we analyze compliance and attrition. There were no cases of non-compliance with the design (i.e., PIDs participating in a group other than the one to which they were assigned) and we had only 2.54% overall attrition. We find a small difference in attrition rates between treatment and control groups and no evidence of selective attrition induced by the treatment. This suggests that our results may not suffer from attrition bias.

We consider as a dropout from our sample those PIDs who did not respond to the $Post_2$ or $Post_3$ surveys and we find small overall attrition. Among the initial sample of 512 PIDs who replied to the baseline survey there are only 13 dropouts (2.54%), with three of them responding to the $Post_1$ survey. In our estimation sample, there are only two respondents who replied only to $Post_2$ or $Post_3$. The remaining 497 replied to both surveys.

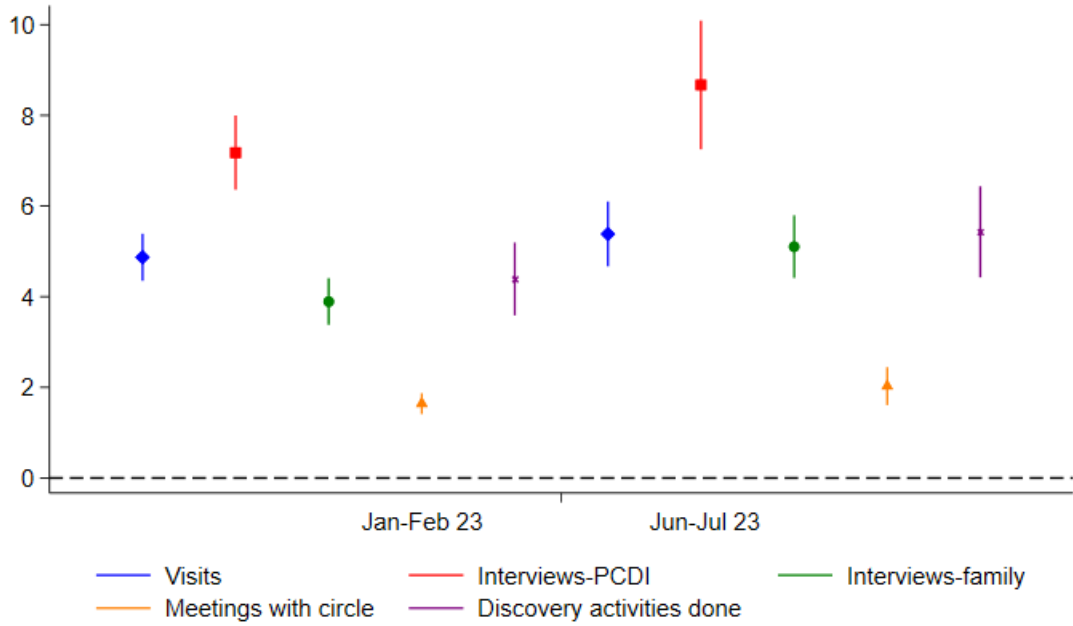
In terms of differential attrition, 10 of the 13 dropouts are from the treatment group and 3 from the control group. This difference could be due to the fact that CE requires a more intense involvement of the PID and their family. A regression of a dropout dummy variable on the treatment, including stratification variables and clustering standard errors at the locality level, indicates 2.4 pp higher attrition among those treated, significant at the 10 percent level (see Appendix Table A11).

Though overall attrition differs in terms of some observable characteristics, we find no evidence of selective attrition induced by the treatment. In the full sample, women are 2.6 pp more likely to drop out than men and those with a degree of disability equal to or above 65% are 1.7 pp more likely to abandon than those below 65% (see Appendix Table A12). However, when we compare by treatment status, we find that treatment does not affect dropping out behavior differentially by any of the observable characteristics considered (see Appendix Table A13). This suggests that even though women and people with higher disabilities were more likely to drop out, this does not differ by treatment group, which would affect our estimation. Given this result and the reduced attrition rate, we do not consider it necessary to analyze the robustness of our results to possible bias between study groups.

7.2 Implementation: Are there differences in the support received?

The effectiveness of CE hinges on its proper implementation across its various phases. The results confirm that professionals assigned to the treatment group adhered to CE guidelines and applied a more intensive methodology to support the PIDs.

Figure 2: Differences in Impact on Activities in the Discovery Phase



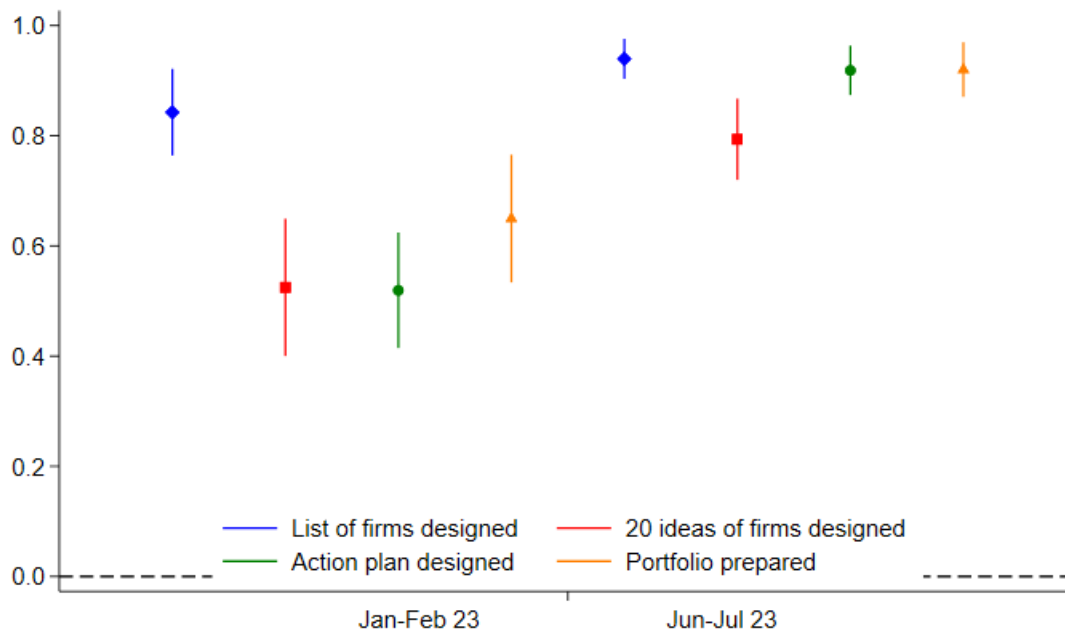
Note: The figure shows the total impact of CE compared to SE in each round using equation 3, for each of the implementation outcomes explained in Section 5.1. 90% confidence intervals included.

Figure 2 illustrates the causal impact on key activities during the discovery phase, as measured in the $Post_1$ and $Post_2$ surveys. According to the $Post_1$ survey, PIDs in the treatment group receive approximately five additional visits to their environment and have 7.2 more interviews compared to those in the control group. The professionals supporting them also conduct 1.6 more meetings with their circle of support, 3.9 more interviews with their families, and 4.4 additional discovery activities. Given that these questions refer to activities carried out in the past 12 months, it is not surprising that the impacts in the $Post_2$ round are even stronger, since they capture the full duration of the intervention.

As shown in Appendix Table A14, the intensive discovery phase results in PIDs in the

treatment group being significantly more likely to have their talents identified—95 pp higher than those in the control group—with the identification of 4.6 more talents by the end of the intervention. Additionally, the probability of identifying the PID’s social capital and designing a vocational profile increases by 93 pp and 94 pp, respectively.

Figure 3: Differences in the Planning Phase

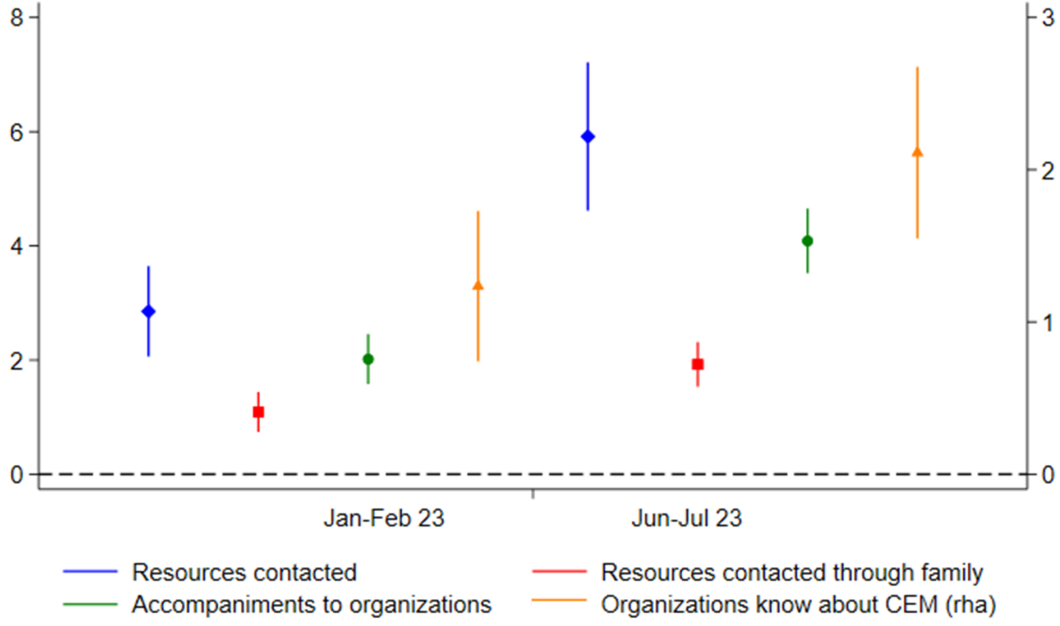


Note: The figure shows the total impact of CE compared to SE in each round using equation 3, for each of the implementation outcomes explained in Section 5.1. 90% confidence intervals included.

Significant differences in implementation are also evident in the planning phase, as shown in Figure 3. PIDs assigned to the treatment group are substantially more likely to have a list of firms designed (94 pp), an action plan formulated (92 pp), and a portfolio prepared (92 pp) compared to the control group (see also Appendix Table A15). On average, they have around 16 more firms listed across the three vocational areas, as illustrated in Appendix Figure A1.

Finally, in terms of the negotiation phase, Figure 4 reveals that PIDs in the treatment group has nearly six more resources contacted, with close to two of these obtained through their families. They also pay four more accompanied visits to organizations (e.g., firms, volunteering opportunities), and professionals are more likely to report that organizations

Figure 4: Differences in the Negotiation Phase



Note: The figure shows the total impact of CE compared to SE in each round using equation 3, for each of the implementation outcomes explained in Section 5.1. 90% confidence intervals included.

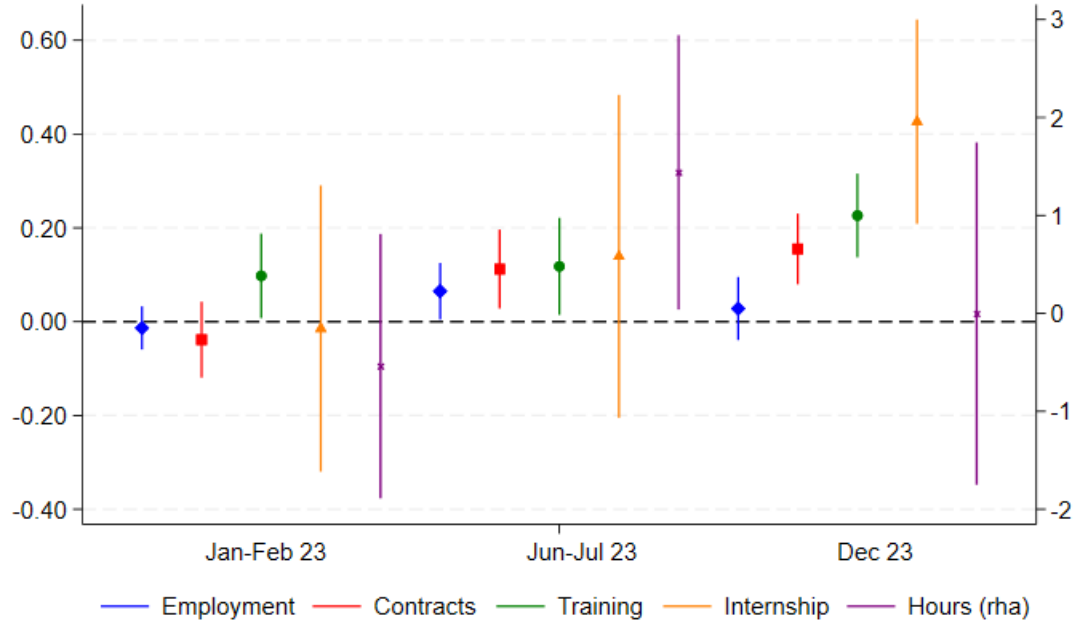
are aware of CE (see also Appendix Table A16).

7.3 Impact on Employment Outcomes

We now turn to the analysis of the causal impact of CE on employment indicators from the surveys. We find that CE improves employability of the PIDs and leads to more training and internship opportunities.

The increase in employability is especially noticeable in the number of contracts, although the number of hours and the probability of being employed also increase, though temporarily. As seen in Figure 5, PIDs in the treatment group are 7 pp more likely to be employed and work 1.4 more hours than those in the control group at the $Post_2$ survey. However, this impact becomes non-significant by December 2023—see the full estimation results in Table 5). Contracts, however, show a significant increase of 0.11 in $Post_2$ round compared to the control group, which remains significant by round $Post_3$ (0.15).

Figure 5: Impact on Employment Outcomes from Surveys



Note: The figure shows the total impact of CE compared to SE in each round using equation 1, for each of the employment outcomes explained in Section 5.2 and detailed in Appendix Table A2. 90% confidence intervals included.

CE also leads to PIDs undertaking more training activities and internships. Even at the $Post_1$ round, those being supported through CE are 10 pp more likely to have done training in regular settings in the previous 12 months. This effect remains significant in the following rounds, increasing up to 23 pp in December 2023. In the case of the number of internships done in the last year, CE significantly increases it by 0.43 at $Post_3$.

Table 5: Impact on Employment Outcomes from Surveys

	(1)	(2)	(3)	(4)	(5)
	Employment	Hours	Contracts	Training	Internships
Treatment	-0.01 (0.03)	-0.54 (0.81)	-0.04 (0.05)	0.10* (0.05)	-0.01 (0.18)
$Post_2$	0.03 (0.03)	0.10 (0.70)	-0.02 (0.07)	0.03 (0.04)	0.00 (0.05)
$Post_3$	0.06* (0.03)	1.78* (0.96)	0.07 (0.07)	-0.01 (0.06)	-0.06 (0.17)
Treatment $\times Post_2$	0.08** (0.03)	1.98** (0.93)	0.15** (0.07)	0.02 (0.06)	0.15** (0.07)
Treatment $\times Post_3$	0.04 (0.04)	0.54 (1.27)	0.19*** (0.07)	0.13* (0.07)	0.44** (0.20)
Observations	1492	1492	1492	1492	1492
R^2	0.36	0.23	0.36	0.22	0.20
Number of PIDs	499	499	499	499	499
Control group mean	0.26	5.54	0.50	0.29	0.51
$\beta_1 + \beta_2$	0.07	1.44	0.11	0.12	0.14
p -value	0.08	0.09	0.03	0.06	0.50
$\beta_1 + \beta_3$	0.03	0.00	0.15	0.23	0.43
p -value	0.49	1.00	0.00	0.00	0.00

Notes: Estimates from equation 1. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measures the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Despite these encouraging results on employment status obtained from the surveys, we do not find significant impacts on the indicators derived from administrative data. We examine the following outcomes: whether the PID is employed or not, number of labor contracts as a fraction of the round's duration in months, labor intensity (raw and full-time equivalent), number of months in non-employment, employment month-to-month transitions, probability of receiving unemployment benefits and subsidies, probability of working part-time and having an open-ended contract, number of temporary labor contracts, and sector of work.

The only notable effects are a significant decrease in spell duration and a 4 pp higher probability of working in the education sector during the intervention period. Thus, we find a consistent employment performance of PIDs across the two data sources prior to the intervention but a lack of agreement between the estimated treatment effects across sources during and after the intervention. This could be due to either mismeasurement in the survey or informality in the employment relations generated by the treatment. Pursuing the investigation of these avenues is left for further research.

7.4 Social Inclusion and Well-being

The impacts of CE on social inclusion and well-being are remarkably positive and hump shaped. Table 6 shows that the treatment leads to a substantial increase in the social inclusion indicator vis-à-vis the control group—of 0.78 standard deviations at the $Post_1$ survey, reaching 0.94 standard deviations in $Post_2$, and falling back to 0.78 standard deviations in $Post_3$. Similarly, the well-being indicator improves by 0.31 standard deviations in $Post_2$ and 0.21 in $Post_3$. Moreover, CE significantly enhances an additional measure of social inclusion: the probability of engaging in volunteering activities over the past 12 months increases by 11 pp to 20 pp across all three rounds compared to the control group.

Table 6: Impact on Social Inclusion and Well-being

	(1)	(2)	(3)
	Inclusion	Volunteering	Well-being
Treatment	0.78***	0.11***	0.09
	(0.11)	(0.04)	(0.11)
$Post_2$	-0.07	-0.01	-0.11*
	(0.07)	(0.02)	(0.06)
$Post_3$	0.01	0.02	-0.06
	(0.11)	(0.02)	(0.08)
Treatment $\times$ $Post_2$	0.16*	0.09**	0.22**
	(0.09)	(0.04)	(0.09)
Treatment $\times$ $Post_3$	-0.00	0.05	0.12
	(0.18)	(0.04)	(0.11)
Observations	1477	1492	1458
R^2	0.41	0.34	0.36
Number of PIDs	495	499	495
Control group mean	-0.36	0.08	-0.05
$\beta_1 + \beta_2$	0.94	0.20	0.31
p -value	0.00	0.00	0.00
$\beta_1 + \beta_3$	0.78	0.16	0.21
p -value	0.00	0.00	0.04

Notes: Estimates from equation 1. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measures the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

The increase in well-being is robust to using disaggregated measures capturing self-esteem and satisfaction related to having a work-life project. As illustrated in Appendix Figure A2, the two composite indexes aggregating the responses from the three informants show significantly higher values for the treatment group in all three rounds. This positive impact remains consistent when analyzed separately by informing group, as seen in Appendix Figures A3 and A4. However, the reported effects vary among informants: professionals observe the strongest impacts, while family members report the lowest, suggesting possible differences in perception across groups.

7.5 Robustness Checks

In this section, we assess the robustness of our findings by restricting the analysis to PIDs who were unemployed at baseline and by testing alternative model specifications.

Our results may vary based on initial employment status for several reasons. As described in Section 4.2, eligibility for the study required participants to be either unemployed or working fewer than 20 hours per week.

First, the expected impact of CE likely differs between initially employed and unemployed PIDs, because the purpose of CE is different even though the same methodology was applied. For unemployed PIDs, the primary goal was for them to find a job, whereas for those already working (which had to be less than 20 hours), the objective was to either increase their working hours or enhance their job fit and overall well-being. However, some PIDs deliberately limit their work hours to retain certain benefits and, for others, structural or personal constraints make surpassing this threshold unrealistic. In such cases, the intervention focused on aligning job responsibilities with their interests, improving their integration into the work team, and fostering inclusion beyond the workplace.

Second, as discussed in Section 5.3, there was a lower proportion of employed PIDs and weaker employment and inclusion outcomes in the treatment group than in the control group at baseline. However, among initially unemployed PIDs, the treatment and control groups were more balanced, with the only significant difference being participation in volunteering.

Third, those unemployed at baseline may have faced greater barriers to employment. This is reflected in their lower number of contracts in the 12 months preceding the baseline survey (0.21 vs. 0.37 in the full sample) and fewer accumulated workdays over the past five years (144 vs. 213 days on average).

Still, our findings remain robust when restricting the sample to unemployed PIDs. In fact, the estimated effects on employment outcomes derived from the surveys tend to be stronger in this subgroup. As shown in Appendix Table A17, the impact of CE on employment probability and hours worked increases to 11 pp (compared to 8 pp in the full sample) and

2.3 hours (vs. 1.4) in $Post_2$, respectively. The impact on training participation rises to 28 pp in $Post_3$ (vs. 23 pp), and the effect on the number of internships increases to 0.57 (vs. 0.43). The impact on the number of contracts remains consistent with the main findings.

Similarly, the effects on social inclusion and well-being indicators are robust—and, in some cases, even stronger—when focusing on initially unemployed PIDs. As shown in Appendix Table A18, the impact on the social inclusion index increases to 0.88 standard deviations in $Post_3$ (compared to 0.78 in the full sample).

Finally, our findings remain robust when using simpler specifications, including mean comparisons (i.e., not controlling for the dependent variable values at baseline), and models controlling only for stratification variables.

7.6 Heterogeneous Effects and Mechanisms

This section presents an analysis of the heterogeneity of treatment effects for some groups of participants using the full sample of 512 PIDs. Specifically, we analyze whether CE impacts are different by gender, degree of disability, recognized dependence, and the level of family involvement in the PID’s employment at baseline.

Gender is considered a dimension of interest per se. Unlike the other dimensions we analyze, family involvement might be endogenous to the PID’s labor integration. However, we are interested in analyzing whether lower or higher family involvement in the PID’s employment affects the impact of CE. This helps to shed some light on the mechanisms behind our results.

We study heterogeneity of CE effects depending on whether or not the degree of disability is greater than 65% for two main reasons. First, the degree of disability affects the type of benefits and aid or services to which the PID is entitled. The degree of disability is calculated according to the intensity of support required by the person for self-care, communication, and physical, functional, social and leisure activities.¹⁵ If the degree of disability is equal to or greater than 33%, the person is considered a person

¹⁵The Spanish government determines the scales to be applied in the assessment of the degree of disability, which is carried out by the regional governments.

with a disability. Below 65%, tax and economic advantages can be obtained, but not cash benefits, which require exceeding this threshold. Second, the degree of disability can reduce the probability of finding a job and there are social security tax reductions for hiring by companies, which increase with the degree of disability.

Finally, we analyze heterogeneity by recognized dependence because official recognition entails acquiring some social and economic benefits that are means-tested and may therefore affect incentives to work. This could reduce the effect of the treatment on work-related variables.

For the heterogeneity analysis, we estimate a similar specification to equation 1, adding as controls the variable for which we want to estimate the potential heterogeneous effects and interactions with treatment:

$$\begin{aligned}
Y_{it} = & \alpha + \beta_1 T_i + \beta_2 (T_i \times Post_2) + \beta_3 (T_i \times Post_3) + \lambda_1 (T_i \times G_i) + \\
& \lambda_2 (T_i \times G_i \times Post_2) + \lambda_3 (T_i \times G_i \times Post_3) + \gamma_2 Post_2 + \gamma_3 Post_3 + \\
& \tau_1 G_i + \tau_2 (Post_2 \times G_i) + \tau_3 (Post_3 \times G_i) + \delta X_i + \eta Y_{i,baseline} + \varepsilon_i \quad (4)
\end{aligned}$$

where G_i is the group dummy. Separate regressions are performed for each of the dimensions under analysis: first, G_i indicates gender and it is equal to one if the PID is female and zero otherwise; second, G_i is equal to one if the degree of disability is greater than or equal to 65% and zero otherwise; third, G_i is equal to one if the PID has an officially recognized disability and zero if not; fourth, G_i is equal to one if the level of family involvement is above the baseline median (which is 7), and zero otherwise. We will refer to those with G_i equal to one in this case as having *high family involvement*. Heterogeneity in CE impact in the $Post_1$ round is captured by λ_1 , in the $Post_2$ round by λ_2 , and in $Post_3$ by λ_3 .

By Gender

We do not find heterogeneous effects by gender in employment, social inclusion or well-being. As Appendix Tables A19 and A20 show, none of the interactions is statistically significantly different from zero. Although the impacts on employment, hours, and contracts are higher for women than for men, the differences are not statistically significant.

By Degree of Disability

Our results show that CE has heterogeneous impacts depending on whether the degree of disability is above or below the 65% threshold (see Appendix Table A22 and A23). In $Post_1$, the impact on hours is significantly lower for those below this threshold: the treatment leads to two less hours worked, whereas this negative effect is not seen for those above the threshold. In $Post_2$, CE increases hours worked for both groups in similar magnitudes. In the case of internships, the larger increase seen in $Post_2$ only takes place among the group with higher disability.

We also see that CE has a higher impact on social inclusion for those with a degree of disability above or equal to 65%. Whereas CE significantly increases social inclusion for both groups, the impact on those with a higher degree of disability is larger.

The heterogeneous effects between these two groups might be explained by differences in their characteristics and starting points. At baseline, those with a degree of disability below 65% were younger, were more likely to have a higher education level, and had higher labor market attachment than those with higher degree of disability, as reported in Appendix Table A21. Family involvement was lower for those with a higher degree of disability and they had lower visibility (although the difference is not significant in the case of PID's response). Though the social inclusion index was balanced at baseline, in $Post_1$ it was significantly lower for those with higher degree of disability (as seen in Appendix Table A23). However, the treatment led to a higher increase for them.

By Recognition of Dependency

Our results show that CE also had heterogeneous effects on the number of contracts and internships depending on whether the dependency is officially recognized or not (see Appendix Table A24). The impact on the former is significantly lower for those with dependency recognized. In this way, CE led to an increase in the number of contracts, compared to the control group, only among those without official recognition. For those with dependency recognized, instead, it increased the number of unpaid internships. These differences might be explained by how the benefits obtained from official recognition affect the incentives to work. We do not find any heterogeneous effect on social inclusion or well-being by this dimension (see Appendix Table A25).

By Family Involvement

The impact of CE shows significant differences by family involvement in employment outcomes but not in social inclusion or well-being.¹⁶ As Appendix Table A26 shows, the impact of treatment on the probability of being employed, hours worked, and training is significantly higher for PIDs with low family involvement at baseline. For them, the probability of being employed increased in *Post*₂ compared to their control group, whereas there was no significant impact of the treatment for PIDs with high family involvement compared to their corresponding control group. Similarly, those with lower family involvement worked 3.9 more hours and were 20 pp more likely to have done training than those in the control group in *Post*₂, with no significant differences between treatment and control in the group with high involvement.

These results suggest that the intensive support through CE might be more beneficial to PIDs with families who are less involved in their employment and therefore who would not receive sufficient help to find a job in the absence of professional support. The baseline statistics suggest that indeed those with lower family involvement exhibited lower labor attachment before the study, as measured by different measures (e.g., the probability of being employed was 11% vs. 21% among those with higher involvement).

8 Conclusions

In this study, we set out to evaluate whether an intensive, personalized employment support program can improve the labor market integration of people with intellectual and developmental disabilities relative to traditional methods. The main question asked is whether Customized Employment—an intervention tailored to each participant’s strengths and interests—leads to better employment and social outcomes compared to the conventional Supported Employment approach. This question is motivated by persistently low employment rates among PIDs and the need for more effective strategies to promote their integration into the workforce and their social inclusion. By examining both job-related outcomes and broader measures of social participation, we aim to provide a comprehensive assessment of CE’s effectiveness.

¹⁶See the results for social inclusion and well-being in Appendix Table A27.

To answer this question, we implemented a randomized controlled trial in Spain, randomly assigning more than 500 eligible individuals to either a treatment group receiving CE services or a control group receiving standard SE services. The experimental design ensured that any differences in outcomes between the two groups could be causally attributed to the CE method. Participants, including PIDs, their families, and professional caseworkers, were tracked through multiple follow-up surveys, and data was collected on a range of outcomes using both survey responses and administrative records.

Key outcome measures included employment status, hours worked, and number of job contracts, as well as participation in training or internships. In addition, we measure indicators of social inclusion and personal well-being to capture the program's broader impact. This empirical approach provides rigorous evidence of the causal effects of CE in a real-world setting.

Our results indicate that CE had a substantial positive impact on participants' labor market outcomes. On average, individuals offered CE support were significantly more likely to obtain employment than those in the control group. They also tended to work more hours and secured a greater number of labor contracts during the observation period, reflecting increases in job finding for CE participants. Furthermore, treated participants showed higher rates of enrollment in training and internships, indicating that the program not only helps PIDs find jobs but also engages them in skill-building activities that enhance their employability. Beyond these employment-related measures, the intervention led to notable improvements in social inclusion and self-reported well-being. CE participants generally felt more integrated into their communities and more satisfied with their personal achievements. Taken together, these findings demonstrate that a personalized, supportive approach can yield broad benefits—from concrete employment gains to improvements in quality of life.

An important insight from the analysis is that the benefits of CE are not uniform; we observed variation in impacts according to individual circumstances. In particular, the magnitude of the program's impact differed by severity of disability, recognized dependency status, and the level of family support. For example, participants who had less involved family support networks experienced especially pronounced improvements in employment

outcomes under CE. This suggests that intensive professional support can compensate for a lack of informal support at home, helping these individuals overcome barriers that might otherwise impede their job search. Those with more severe disabilities or higher dependency needs also benefited from CE, though their gains were generally somewhat smaller. These heterogeneous effects underscore that one-size-fits-all policies may be less effective, and that programs like CE should be attentive to the specific needs of different subgroups to maximize impact.

The evidence from this RCT carries several policy implications. First, it provides support for the effectiveness of Customized Employment as a tool for improving the labor market inclusion of people with intellectual disabilities. Policymakers and service providers can take note that investing in individualized employment support yields significant benefits in terms of higher employment rates and improved life outcomes for this population. Scaling up CE programs, or incorporating key elements of CE into existing disability employment services, could help address persistently low employment levels among PIDs.

Second, the findings suggest that resources may be especially impactful when directed toward individuals who lack strong family support, as these individuals stand to benefit the most from intensive professional assistance. At the same time, expanding CE requires adequate funding and training for caseworkers, since this approach is more resource-intensive than traditional services. Policymakers must weigh these costs against the estimated benefits before scaling up is undertaken.

Finally, this study points to several avenues for further research. First of all, the results on employment obtained from surveys are not validated by the analysis of several measures of employment using administrative data, which warrants further analysis. Another important direction is to examine the longer-term impacts of Customized Employment. Future follow-up studies could determine whether the employment and social gains observed persist after the program ends and whether CE participants continue to progress in their careers over time. Our study indicates that the effects from the treatment fade out after the intervention ends, which suggests that CE would need to be offered on a permanent basis. Yet another priority is to evaluate the cost-effectiveness of CE; understanding the cost per job placement or per improvement in well-being is crucial for assessing the

scalability of the program. Additionally, research could explore which components of the CE model are most essential to its success, such as the role of employer engagement or strategies for family involvement. Finally, replicating similar experimental evaluations in other regions or countries would be valuable to test the generalizability of our findings. Such work would contribute to a growing evidence base to guide the design of inclusive employment policies in diverse contexts.

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Appendix

Table A1: Main Differences between SE and CE

Supported Employment	Customized Employment
Uses assessments (internships, in-company training, volunteering) to evaluate the capabilities of the PID.	Takes employability for granted; activities based on discovery tasks to determine how best to support the PID and their best way of learning to ensure their ideal fit for the position.
Look for companies that have vacancies.	Develops a job together with the company that meets the specific conditions that are ideal for the job.
Canvasses companies to determine their willingness to hire a person with a disability to fill a job opening.	Uses the informational interview approach with companies to broaden employment possibilities by learning more about the company, the job, and other companies doing similar work.
Places the PID in a position where he or she is likely to be able to successfully complete their tasks.	Negotiates a position based on an employment proposal that takes into account the unique characteristics of the PID: skills, interests, and available support, as well as cultural and peer fit, to ensure success.
Assumes that the responsibility for developing an on-the-job training plan rests with the job specialist.	Ensures that the employment professional prepares the analysis and the on-the-job training plan, with the agreement of co-workers who have the primary responsibility for teaching and training, with the support, when necessary, of a professional.
Applies a labor market approach to job creation.	Applies an economic development approach to job creation.
Takes into account what work that can be done by the PID is available.	Takes into account the assets of the PID, what they contribute to the employment equation.

Source: Confederación Plena Inclusión España.

Table A2: Definition of Main Outcome Indicators from Surveys

Outcomes	Variable or formula	Source	Range
Current employment	RF7	Professional	0 - 1
Hours of paid work per week at present	RF12	Professional	0 - N
Number of labor contracts in the last 12 months	RF8	Professional	0 - N
Completion of training in regular settings in the last 12 months	RF9	Professional	0 - 1
Number of unpaid internships or collaborations in regular contexts in the last 12 months	RF10	Professional	0 - N
Level of social inclusion	Standardized composite index of RF1, RF2, RF3/3B, and RF4	Professional, PID, and family	N1 - N2
Volunteering in the last 12 months	RF11	Professional	0 - 1
Level of well-being	Standardized composite of RF14, RF15, RF16, RF17, RF18, RF19, RF20, RF21AU1, RF21AU2, RF21AU3, RF21AU4, RF21AU5, RF21AU6, RF21AU7, RF21AU8, RF21AU9, RF21AU10, RF22SAT1, RF22SAT2, RF22SAT3, RF22SAT4, and RF22SAT5	Professional, PID, and family	N1 - N2

Table A3: Questions from Surveys Used for Main Outcome Indicators

Name	Variable	Range	Question
Number of new locations	RF1	0 - N	Number of new locations where the PID has participated, in the last 12 months, for the purpose of employment (talent spotting, social capital, etc.).
Number of new relationships	RF2	0 - N	Number of new relationships (people you have met in the last 12 months and with whom you have contact/talk/interact at least 1 time per month since you have met them) of the PID, in the context of employment (talent spotting, social capital, etc.).
Degree of satisfaction with relationships in the work environment	RF3	1 - 10	How satisfied is the PID with the social relationships they maintain in their labor activities (actions for training, professional development, or job search in ordinary contexts)?
Degree of visibility in the community through labor activities	RF4	1 - 10	Has the PID been visible to other people without intellectual disability through any type of employment activity?
Current labor contract	RF7	0 - 1	Does the PID have a labor contract?
Number of labor contracts	RF8	0 - N	Number of labor contracts of the PID in the last 12 months.
Training activities	RF9	0 - 1	Has the PID undergone training in regular settings in the last 12 months?
Number of unpaid work experiences	RF10	0 - N	Number of unpaid work experiences (internships and/or collaborations) in regular contexts in the last 12 months.
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Name	Variable	Range	Question
Volunteering	RF11	0 - 1	As part of your employment project, have you performed volunteering in the last 12 months?
Number of hours of paid work per week	RF12	0 - N	Number of hours of paid work per week, at present, of the PID.
Work life project	RFSALTO	0 - 1	Has the PID had any kind of work life project (have a plan with employment-related actions)?
Level of self-esteem	RF14	1 - 10	Has the PID felt valued during their work life project?
Level of satisfaction with quality of life	RF15	1 - 10	Has having had some kind of work life project contributed to the PID's satisfaction with their life?
Level of happiness	RF16	1 - 10	Has having had some kind of work life project contributed to the PID being happy?
Helping others	RF17	1 - 10	Has having had some kind of work life project allowed the PID to contribute to helping other people without intellectual disability?
Contribution to society	RF18	1 - 10	Has having had some kind of work life project allowed the PID to contribute to achieving a better society?
Level of personal development	RF19	1 - 10	Has having had some kind of work life project allowed the PID to develop and grow as a person?
Level of self-determination	RF20	1 - 10	Has having had some kind of work life project allowed the PID to make more decisions and be in charge of her life?
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Name	Variable	Range	Question
Degree of self-esteem - worthy of appreciation	RF21AU1	1 - 4	The PID feels that he/she is a person worthy of appreciation at least as much as others.
Degree of self-esteem - positive qualities	RF21AU2	1 - 4	The PID feels that he/she has positive qualities.
Degree of self-esteem - failed	RF21AU3	1 - 4	The PID is inclined to think of him/herself as a failure.
Degree of self-esteem - ability to do things	RF21AU4	1 - 4	The PID feels that he/she is able to do things as well as most others.
Degree of self-esteem - pride	RF21AU5	1 - 4	The PID feels he/she does not have much to be proud of.
Degree of self-esteem - positive attitude	RF21AU6	1 - 4	The PID adopts a positive attitude toward himself/herself.
Degree of self-esteem - self-satisfaction	RF21AU7	1 - 4	The PID feels satisfied with himself/herself.
Degree of self-esteem - self-respect	RF21AU8	1 - 4	The PID would like to have more self-respect.
Degree of self-esteem - effectiveness	RF21AU9	1 - 4	Sometimes the PID feels downright useless.
Degree of self-esteem - productivity	RF21AU10	1 - 4	Sometimes the PID thinks he/she is worthless.
Degree of satisfaction with your life - aspects of your life	RF22SAT1	1 - 5	Most aspects of the PID's life are the way they want it to be.
Degree of satisfaction with your life - good circumstances	RF22SAT2	1 - 5	The PID's life circumstances are very good.
Degree of satisfaction with life - life satisfaction	RF22SAT3	1 - 5	The PID is satisfied with their life.
<i>Continued on next page...</i>			

Name	Variable	Range	Question
Degree of satisfaction with your life - achieving important things	RF22SAT4	1 - 5	So far, the PID has gotten out of life the things he/she considers important.
Degree of satisfaction with your life - changing your life	RF22SAT5	1 - 5	If the PID could live their life over again, they would change almost nothing.

Notes: Replies to RF21AU3, RF21AU5, RFAU8, RF21AU9 and RF21AU10 were transformed so that all variables have a positive meaning.

Table A4: Additional Descriptive Statistics of the PIDs in the Study Sample

	Obs.	Mean	SD	Min	Max
Num. places (prof.)	512	0.43	0.82	0	8
Num. relationship (prof.)	512	0.75	1.99	0	15
Relationship satisfaction (prof.)	512	5.60	2.75	1	10
Relationship satisfaction (PID)	161	7.96	2.24	1	10
Relationship satisfaction (family)	156	7.40	2.43	1	10
Visibility (prof.)	512	5.29	2.99	1	10
Visibility (PID)	510	5.76	3.33	1	10
Visibility (family)	507	5.67	3.10	1	10
Project-self-esteem (prof.)	310	7.65	1.84	1	10
Project-self-esteem (PID)	321	8.25	2.02	1	10
Project-self-esteem (family)	322	7.49	2.35	1	10
Project-satisfaction (prof.)	310	7.86	1.82	1	10
Project-satisfaction (PID)	321	8.31	1.91	1	10
Project-satisfaction (family)	322	7.84	2.17	1	10
Self-esteem (std.)	506	0.00	1.00	-3.31	2.83
Inclusion (std.)	506	0.00	1.00	-3.63	2.73
Project-self-esteem	271	0.00	1.00	-4.09	1.40
Project-satisfaction	271	0.00	1.00	-3.50	1.31
Life satisfaction (prof.)	512	3.38	0.96	1	5
Life satisfaction (family)	507	3.57	0.95	1	5
Life satisfaction (PID)	510	3.90	0.91	1	5
Employment to Employment Transition	501	.13	.30	0	1
Nonemployment to Nonemployment Transition	501	.81	.35	0	1
Employment to Nonemployment Transition	501	.03	.08	0	.5
Nonemployment to Employment Transition	501	.03	.09	0	.5
# of months in employment	501	0.64	1.29	0	4
Prob unemp. benefit	454	0.03	0.17	0	1
Prob unemp. subsidy	454	0.03	0.15	0	1
# of contracts in the last 12 months	501	0.45	1.06	0	10.5
Accumulated experience	501	621	1207	0	8501
Prob of open-ended contract	123	0.49	0.49	0	1
# of temp. contracts (excl. discontinuous)	501	0.30	0.87	0	4
# of Different sectors worked	501	0.28	0.49	0	2
Probability of working in:					
Agriculture	127	.01	.09	0	1
Manufacturing	127	.02	.13	0	1

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	Obs.	Mean	SD	Min	Max
Waste management	127	.01	.09	0	1
Construction	127	.01	.09	0	1
Trade and vehicles	127	.09	.29	0	1
Transport and storage	127	.02	.15	0	1
Accomodation	127	.06	.24	0	1
Inf and communication	127	.02	.15	0	1
Finance and insurance	127	.02	.12	0	1
Professional and technical	127	.02	.14	0	1
Administrative and auxiliary act.	127	.31	.45	0	1
Public administration	127	.09	.28	0	1
Education	127	.02	.15	0	1
Health and social service	127	.19	.39	0	1
Art and entertainment	127	.05	.21	0	1
Other services	127	.05	.20	0	1

Notes: prof. denotes professionals and std. means standardized. Probability of unemployment benefit and subsidy are considered only if the PID is nonemployed. The probability of working in a different sector is computed only if working. The following sectors are not included in the table because no PID is working in them according to the Social Security data: Real estate and domestic workers in households. Accumulated experience is the total days worked from January 1997 to September 2022. Details about the questions asked in the surveys are included in Appendix Table A3. Project-self-esteem corresponds to RF14 in this table, and Project-satisfaction is RF15, where the parenthesis indicates the informant. In the case of the rows without parentheses, these are the synthetic indicators for RF14 and RF15, aggregating the responses from the three informants.

Table A5: Descriptive Statistics of Implementation Indicators

	Obs.	Mean	SD	Min	Max
Visits (#)	499	0.03	0.26	0	3
Interviews-PCDI (#)	499	0.10	0.44	0	4
Interviews-family (#)	499	0.04	0.22	0	2
Meetings-circle of support (#)	499	0.01	0.16	0	3
Act. planned for profile design (#)	499	0.01	0.15	0	3
Act. identified for talent discovery (#)	499	0.02	0.21	0	4
Discovery activities done (#)	499	0.03	0.37	0	5
Talents identified	499	0.01	0.09	0	1
Talents identified (#)	499	0.03	0.47	0	8
Social capital identified	499	0.01	0.09	0	1
Vocational profile designed	499	0.01	0.09	0	1
List of firms designed	499	0.01	0.08	0	1
20 ideas of firms listed	499	0.00	0.04	0	1
Firms in vocational area 1 (#)	499	0.15	1.62	0	21
Firms in vocational area 2 (#)	499	0.08	1.24	0	20
Firms in vocational area 3 (#)	499	0.07	1.15	0	20
Action plan designed	499	0.02	0.15	0	1
Portfolio prepared	499	0.00	0.06	0	1
Resources contacted (#)	499	0.02	0.20	0	3
Resources obtained through family (#)	499	0.05	0.95	0	21
Organizations contacted (#)	499	0.04	0.28	0	3
Accompaniments to organizations (#)	499	0.02	0.18	0	3
Organizations know about CEM	499	2.34	2.09	1	10

Table A6: Geographic Distribution

Region	Full sample			Initially unemployed PIDs		
	Control	Treated	Total	Control	Treated	Total
Andalucía	26	26	52	22	26	48
Aragón	17	18	35	9	18	27
Canarias	8	9	17	5	9	14
Castilla y León	15	15	30	14	13	27
Cataluña	28	28	56	20	25	45
Ceuta	5	5	10	5	5	10
Comunidad de Madrid	43	43	86	32	33	65
Comunitat Valenciana	20	22	42	17	19	36
Extremadura	28	29	57	27	29	56
Galicia	15	16	31	14	15	29
La Rioja	12	12	24	7	8	15
Principado de Asturias	23	23	46	21	21	42
Región de Murcia	13	13	26	10	11	21
Total	253	259	512	203	232	435

Table A7: Balance between Treatment and Control - Implementation Variables

Variable	(1) Control		(2) Treatment		(2)-(1) Pairwise <i>t</i> -test	
	Obs.	Mean/(Var)	Obs.	Mean/(Var)	Obs.	<i>p</i> -value
Visits (#)	250	0.03 (0.31)	249	0.03 (0.26)	499	0.77
Interviews-PCDI (#)	250	0.08 (0.85)	249	0.12 (0.85)	499	0.56
Interviews-family (#)	250	0.04 (0.24)	249	0.05 (0.20)	499	0.70
Meetings-circle of support (#)	250	0.02 (0.17)	249	0.01 (0.05)	499	0.71
Act. planned-profile (#)	250	0.02 (0.17)	249	0.01 (0.03)	499	0.32
Act. identified-talent (#)	250	0.01 (0.09)	249	0.02 (0.30)	499	0.59
Discovery activities done (#)	250	0.04 (0.89)	249	0.02 (0.30)	499	0.27
Talents identified	250	0.01 (0.03)	249	0.01 (0.03)	499	1.00
Talents identified (#)	250	0.02 (0.63)	249	0.04 (1.27)	499	0.15
Social capital identified	250	0.00 (0.02)	249	0.01 (0.05)	499	0.16
Vocational profile designed	250	0.00 (0.02)	249	0.01 (0.05)	499	0.32
List of firms designed	250	0.00 (0.02)	249	0.01 (0.03)	499	0.32
20 ideas of firms listed	250	0.00 (0.02)	249	0.00 (0.00)	499	0.32
Firms-vocational area 1 (#)	250	0.14 (9.97)	249	0.17 (12.86)	499	0.81
Firms-vocational area 2 (#)	250	0.08 (6.99)	249	0.08 (6.37)	499	0.97
Firms-vocational area 3 (#)	250	0.08 (6.99)	249	0.07 (4.49)	499	0.91
Action plan designed	250	0.02 (0.09)	249	0.02 (0.10)	499	0.32
Portfolio prepared	250	0.01 (0.03)	249	0.00 (0.00)	499	0.16
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Variable	(1) Control		(2) Treatment		(2)-(1) Pairwise <i>t</i> -test	
	Obs.	Mean (Var)	Obs.	Mean (Var)	Obs.	<i>p</i> -value
Resources contacted (#)	250	0.02 (0.23)	249	0.02 (0.14)	499	0.75
Resources through family (#)	250	0.01 (0.16)	249	0.09 (7.72)	499	0.36
Organizations contacted (#)	250	0.02 (0.24)	249	0.06 (0.42)	499	0.09*
Accompaniments to org. (#)	250	0.02 (0.24)	249	0.01 (0.05)	499	0.33
Organizations know CE	250	2.38 (19.38)	249	2.29 (18.66)	499	0.58

Table A8: Balance between Treatment and Control - Additional Variables

Variable	Obs.	(1)	Obs.	(2)	(2)-(1)	
		Control Mean/(Var)		Treatment Mean/(Var)	Pairwise <i>t</i> -test Obs. <i>p</i> -value	
Num. places (prof.)	253	0.50 (3.07)	259	0.36 (2.84)	512	0.05**
Num. relationship (prof.)	253	1.02 (23.02)	259	0.48 (12.01)	512	0.00***
Relationship satisfaction (prof.)	253	5.66 (32.50)	259	5.53 (35.48)	512	0.59
Relationship satisfaction (PID)	85	7.80 (12.49)	76	8.14 (8.37)	161	0.29
Relationship satisfaction (family)	79	7.38 (11.91)	77	7.43 (11.92)	156	0.88
Visibility (prof.)	253	5.23 (37.00)	259	5.35 (42.89)	512	0.70
Visibility (PID)	251	5.78 (48.13)	259	5.75 (50.85)	510	0.92
Visibility (family)	248	5.63 (42.82)	259	5.72 (43.20)	507	0.76
Project-self-esteem (prof.)	146	7.79 (8.95)	164	7.53 (13.34)	310	0.27
Project-self-esteem (PID)	158	8.31 (11.06)	163	8.18 (16.99)	321	0.55
Project-self-esteem (family)	159	7.36 (16.72)	163	7.62 (18.93)	322	0.37
Project-satisfaction (prof.)	146	7.99 (8.20)	164	7.75 (13.76)	310	0.36
Project-satisfaction (PID)	158	8.36 (10.78)	163	8.26 (14.16)	321	0.66
Project-satisfaction (family)	159	7.70 (16.07)	163	7.98 (14.33)	322	0.35
Self-esteem (std.)	247	0.04 (4.03)	259	-0.03 (4.89)	506	0.41
Inclusion (std.)	247	-0.02 (4.40)	259	0.02 (4.53)	506	0.74
Project-self-esteem	125	0.05 (2.76)	146	-0.05 (3.41)	271	0.47
Project-satisfaction	125	0.07 (2.36)	146	-0.06 (3.77)	271	0.33

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Variable	Obs.	(1) Control	Obs.	(2) Treatment	(2)-(1) Pairwise <i>t</i> -test	
		Mean (Var)		Mean (Var)	Obs.	<i>p</i> -value
Life satisfaction (prof.-std.)	247	0.02 (4.39)	259	-0.02 (4.55)	506	0.70
Life satisfaction (family-std.)	248	0.01 (4.54)	259	-0.01 (4.41)	507	0.79
Life satisfaction (PID-std.)	251	0.04 (4.53)	259	-0.04 (4.38)	510	0.35
Life satisfaction (prof.)	253	3.38 (4.30)	259	3.39 (3.89)	512	0.86
Life satisfaction (family)	248	3.58 (4.11)	259	3.56 (4.00)	507	0.79
Life satisfaction (PID)	251	3.94 (3.76)	259	3.86 (3.63)	510	0.35
Emp. to Emp. Transition	250	0.15 (0.44)	251	0.10 (0.33)	501	0.04**
Nonemp. to Nonemp. Transition	250	0.78 (0.62)	251	0.85 (0.45)	501	0.03**
Emp. to Nonemp. Transition	250	0.03 (0.03)	251	0.02 (0.02)	501	0.43
Nonemp. to Emp. Transition	250	0.04 (0.04)	251	0.03 (0.03)	501	0.13
# months in employment	250	0.76 (8.24)	251	0.52 (6.22)	501	0.03**
Prob unemp. benefit	224	0.03 (0.11)	230	0.04 (0.13)	454	0.65
Prob unemp. subsidy	224	0.03 (0.09)	230	0.03 (0.10)	454	0.91
# contracts in last 12 months	250	0.53 (7.37)	251	0.37 (2.42)	501	0.21
Accumulated experience	250	670.94 (7.27e+06)	251	570.39 (5.48e+06)	501	0.33
Prob of open-ended contract	71	0.52 (0.43)	52	0.46 (0.45)	123	0.57
# temp. contracts (excl. disc.)	250	0.34 (3.72)	251	0.26 (2.99)	501	0.28
# Diff. sectors in round	250	0.32 (1.17)	251	0.23 (0.89)	501	0.01**
Agriculture	73	0.02 (0.03)	54	0.00 (0.00)	127	0.21
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Variable	(1) Control		(2) Treatment		(2)-(1) Pairwise <i>t</i> -test	
	Obs.	Mean (Var)	Obs.	Mean (Var)	Obs.	<i>p</i> -value
Manufacturing	73	0.02 (0.03)	54	0.02 (0.03)	127	0.99
Waste management	73	0.01 (0.03)	54	0.00 (0.00)	127	0.33
Construction	73	0.00 (0.00)	54	0.02 (0.03)	127	0.31
Trade and vehicles	73	0.07 (0.12)	54	0.12 (0.20)	127	0.34
Transport and storage	73	0.04 (0.07)	54	0.00 (0.00)	127	0.08*
Accommodation	73	0.04 (0.07)	54	0.09 (0.16)	127	0.26
Inf and communication	73	0.03 (0.05)	54	0.02 (0.03)	127	0.75
Finance and insurance	73	0.01 (0.03)	54	0.02 (0.03)	127	0.84
Prof. and technical	73	0.02 (0.04)	54	0.02 (0.03)	127	0.87
Administrative and auxiliary act.	73	0.35 (0.40)	54	0.27 (0.35)	127	0.33
Public administration	73	0.11 (0.17)	54	0.07 (0.11)	127	0.37
Education	73	0.03 (0.05)	54	0.02 (0.03)	127	0.55
Health and social service	73	0.17 (0.27)	54	0.22 (0.31)	127	0.62
Art and entertainment	73	0.03 (0.05)	54	0.07 (0.13)	127	0.19
Other services	73	0.05 (0.08)	54	0.04 (0.07)	127	0.86

Table A9: Balance between Treatment and Control - Information on Professionals

		(1)		(2)	(2)-(1)	
		0		1	Pairwise <i>t</i> -test	
Variable	N	Mean/(Var)	N	Mean/(Var)	N	<i>p</i> -value
Female	62	0.81 (0.16)	72	0.85 (0.13)	134	0.54
Age	62	41.92 (97.85)	72	37.62 (85.90)	134	0.01**
Lower or upper secondary education	62	0.08 (0.08)	72	0.06 (0.05)	134	0.57
Post secondary or ST higher education	62	0.16 (0.14)	72	0.19 (0.16)	134	0.62
Master or university education	62	0.76 (0.19)	72	0.75 (0.19)	134	0.91
Born in Spain	62	1.00 (0.00)	72	1.00 (0.00)	.n	.n
Hours CE training	59	0.07 (0.13)	72	0.17 (2.00)	131	0.60
Training in CE	59	0.05 (0.05)	72	0.00 (0.00)	131	0.05*
Training in PID employment	59	0.24 (0.18)	72	0.21 (0.17)	131	0.69
Innovation of PID employment training	14	7.14 (3.52)	15	6.40 (2.26)	29	0.25
Satisfaction with PID employment training	14	7.29 (3.45)	15	6.87 (2.84)	29	0.53
Self-efficacy for CE implementation	59	5.63 (7.00)	72	5.06 (7.43)	131	0.23

Notes: Only professionals who received training in PID employment were asked about the innovative nature of the training (“How innovative has the training you have received on employment for people with intellectual and developmental disabilities been so far?”) and their satisfaction with it (“How satisfied are you so far with the training you have received on employment for people with intellectual and developmental disabilities?”). As a result, the number of observations for these two questions is 29. In contrast, all professionals responded to the question: “How effective do you think you would be at implementing the customized employment methodology for people with intellectual and developmental disabilities?” (self-efficacy for CE implementation).

Table A10: Balance between Treatment and Control - Family Characteristics

		(1)		(2)	(2)-(1)	
		0		1	Pairwise <i>t</i> -test	
Variable	N	Mean/(Var)	N	Mean/(Var)	N	<i>p</i> -value
Female	248	0.74 (0.19)	259	0.71 (0.21)	507	0.43
Age	248	57.10 (139.33)	259	56.54 (171.05)	507	0.61
Primary education or lower	248	0.38 (0.24)	259	0.36 (0.23)	507	0.64
Lower or upper secondary education	248	0.24 (0.18)	259	0.21 (0.17)	507	0.43
Post secondary or ST higher education	248	0.14 (0.12)	259	0.16 (0.13)	507	0.50
Master, university or PhD education	248	0.25 (0.19)	259	0.28 (0.20)	507	0.48
Spanish nationality	248	0.97 (0.03)	259	0.95 (0.04)	507	0.28
Relationship with PID-mother	248	0.55 (0.25)	259	0.55 (0.25)	507	0.99
Relationship with PID-father	248	0.18 (0.15)	259	0.16 (0.13)	507	0.49
Relationship with PID-sibling	248	0.07 (0.07)	259	0.08 (0.08)	507	0.61
Relationship with PID-other relative	248	0.04 (0.04)	259	0.05 (0.05)	507	0.59
Relationship with PID-legal guardian	248	0.02 (0.02)	259	0.02 (0.02)	507	0.79
Relationship with PID-professional	248	0.14 (0.12)	259	0.14 (0.12)	507	0.95

Notes: Respondents were asked to indicate their relationship with the PID by selecting only one of the following options: mother, father, sibling, another family member (e.g., grandparent, aunt/uncle), legal guardian without family ties, or professional/person closely connected to the PID. This professional is different from the 134 professionals described in Table 2.

Table A11: Differential Attrition

	(1)	(2)
	Dropout	Dropout
Treatment	0.027** (0.013)	0.024* (0.013)
Observations	512	512
R^2	0.007	0.112
Controls	No	Yes

Note: Controls include stratification variables (i.e., gender and locality fixed effects). Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A12: Attrition by Observable Characteristics - Probability of Dropping Out

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	0.026*							0.007
	(0.014)							(0.007)
Education above primary school		0.002						-0.016*
		(0.021)						(0.009)
Aged 40 or older			-0.017					-0.016*
			(0.015)					(0.009)
Disability greater than 65%				0.017*				0.016*
				(0.010)				(0.009)
Spanish nationality					-0.035			0.004
					(0.050)			(0.004)
Born in Spain						-0.016		0.003
						(0.025)		(0.003)
Family involvement (baseline)							-0.004	-0.001
							(0.003)	(0.001)
Constant	0.014**	0.025***	0.029***	-0.003	0.059	0.040*	0.049***	0.006
	(0.006)	(0.007)	(0.003)	(0.005)	(0.049)	(0.023)	(0.018)	(0.006)
Observations	512	512	512	502	512	512	512	502
R^2	0.107	0.101	0.102	0.092	0.102	0.101	0.104	0.103

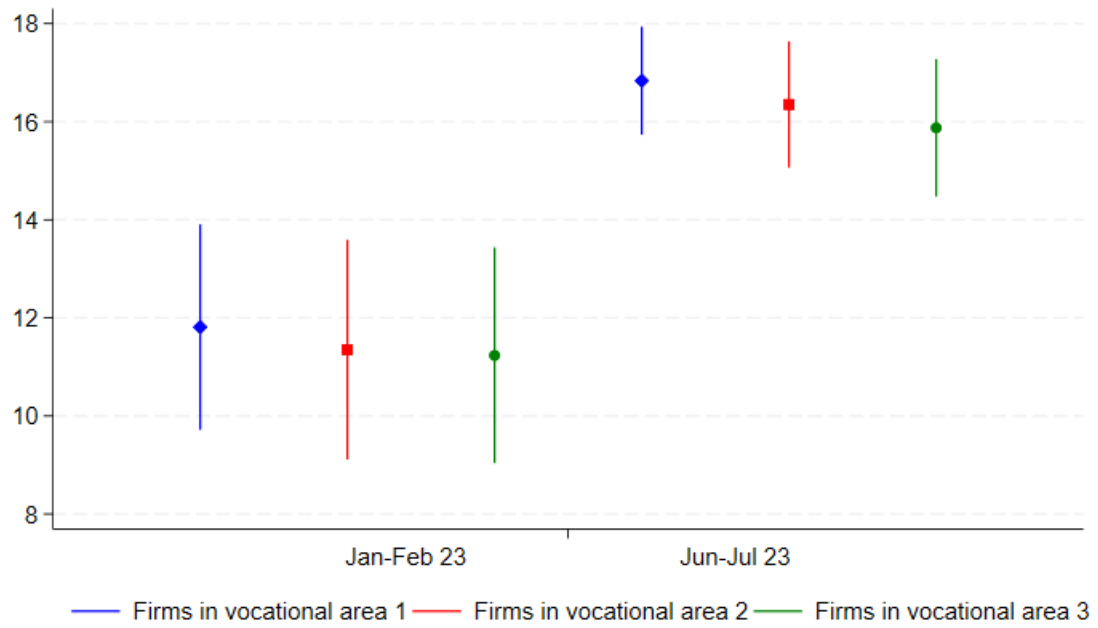
Notes: All regressions include locality fixed effects. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A13: Selective Attrition - Probability of Dropping Out

	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.010 (0.013)	0.013 (0.019)	0.033** (0.015)	0.002 (0.003)	0.100 (0.079)	0.052 (0.046)
Interaction	0.032 (0.029)	0.034 (0.035)	-0.043 (0.038)	0.003 (0.017)	-0.078 (0.081)	-0.030 (0.048)
Female	0.009 (0.014)					
Education above primary school		-0.015 (0.020)				
Aged 40 or older			0.004 (0.023)			
Disability greater than 65%				0.016 (0.013)		
Spanish nationality					0.015 (0.032)	
Born in Spain						-0.003 (0.014)
Observations	512	512	512	502	512	512
R^2	0.115	0.109	0.111	0.092	0.110	0.108

Notes: All regressions include locality fixed effects. Interaction is the interaction between the Treatment variable and the corresponding observable characteristic. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure A1: Differences in the Planning Phase



Note: The figure shows the total impact of CE compared to SE in each round using equation 3, for each of the implementation outcomes explained in Section 5.1 .

Table A14: Impact on Implementation Indicators - Discovery Phase

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Visits	Interviews	Interviews	Meetings	Activities	Activities	Discovery	Talents	Talents	Social	Vocational
	(#)	PCDI (#)	Family (#)	Support (#)	Planned (#)	Identified (#)	Done (#)	Identified	Identified (#)	Capital	Profile
T	4.87*** (0.31)	7.18*** (0.49)	3.89*** (0.31)	1.64*** (0.14)	5.41*** (0.59)	4.38*** (0.43)	4.39*** (0.48)	0.89*** (0.03)	3.80*** (0.47)	0.85*** (0.04)	0.89*** (0.03)
$Post_2$	0.11 (0.09)	0.08 (0.06)	0.06 (0.05)	0.06 (0.05)	0.07 (0.06)	0.03 (0.03)	0.09 (0.06)	0.00 (0.00)	0.01 (0.02)	0.01 (0.01)	0.02 (0.02)
$T \times Post_2$	0.51 (0.34)	1.49** (0.66)	1.21*** (0.26)	0.38** (0.19)	1.16** (0.46)	1.08*** (0.25)	1.04** (0.49)	0.06** (0.03)	0.79** (0.34)	0.08** (0.03)	0.05 (0.03)
Obs.	994	994	994	994	994	994	994	994	994	994	994
R^2	0.71	0.71	0.67	0.62	0.68	0.66	0.54	0.88	0.62	0.85	0.88
Num. PIDs	499	499	499	499	499	499	499	499	499	499	499
Control mean	0.04	0.09	0.07	0.06	0.08	0.11	0.08	0.02	0.09	0.00	0.02
$\beta_1 + \beta_2$	5.39	8.67	5.10	2.03	6.57	5.45	5.43	0.95	4.58	0.93	0.94
p -value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: Estimates from equation 3. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and below it we report the p -values to establish the significance of the total impact in this round. Dependent variables are the discovery phase indicators described in Section 5.1. Column 4 has as dependent variable the number of meetings with the circle of support. Column 5, shows regressions using the number of activities planned for profile design as the dependent variable. Column 6, shows the results for the number of activities identified for talent discovery. Column 7 uses the number of discovery activities done, whereas columns 10 and 11 have as the dependent variables whether the social capital was identified and the vocational profile was designed, respectively. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A15: Impact on Implementation Indicators - Planning Phase

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	List of firms designed	20 ideas of firms listed	Firms vocational area 1 (#)	Firms vocational area 2 (#)	Firms vocational area 3 (#)	Action plan designed	Portfolio prepared
T	0.84*** (0.05)	0.52*** (0.07)	11.81*** (1.25)	11.35*** (1.34)	11.24*** (1.31)	0.52*** (0.06)	0.65*** (0.07)
$Post_2$	0.02 (0.02)	0.01 (0.01)	0.05 (0.07)	0.04 (0.06)	0.02 (0.05)	0.02 (0.02)	0.01 (0.02)
$T \times Post_2$	0.10* (0.05)	0.27*** (0.08)	5.02*** (1.28)	5.00*** (1.32)	4.64*** (1.27)	0.40*** (0.07)	0.27*** (0.07)
Obs.	994	994	994	994	994	994	994
R^2	0.84	0.67	0.77	0.75	0.74	0.72	0.76
Num. PIDs	499	499	499	499	499	499	499
Control mean	0.01	0.00	0.11	0.10	0.12	0.02	0.02
$\beta_1 + \beta_2$	0.94	0.79	16.84	16.35	15.88	0.92	0.92
p-value	0.00	0.00	0.00	0.00	0.00	0.00	0.00

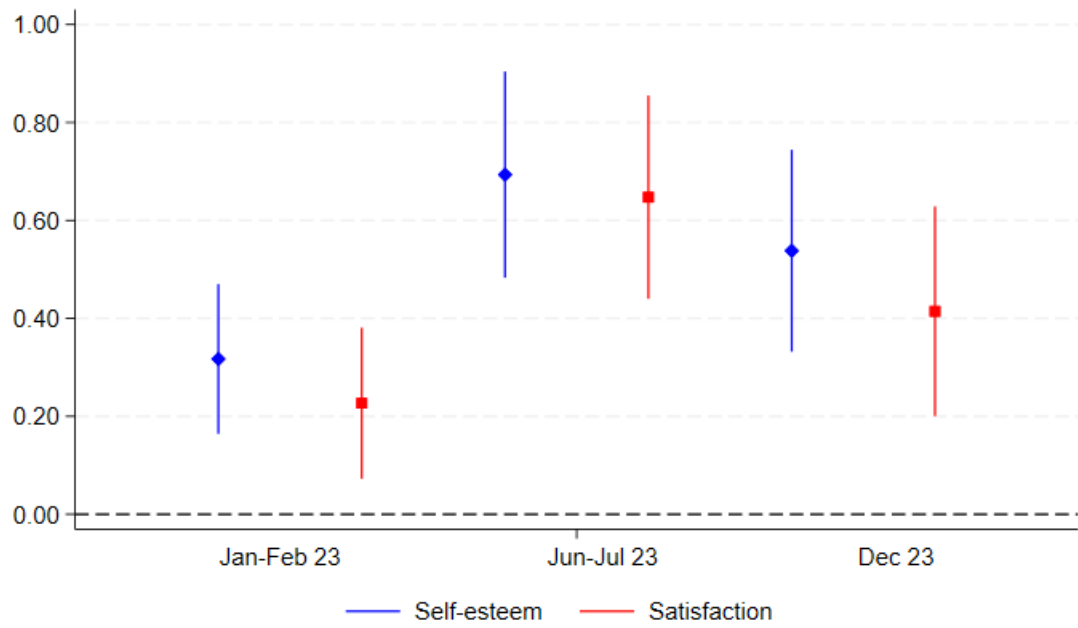
Note: Estimates from equation 3. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and below it we report the p-values to establish the significance of the total impact in this round. Dependent variables are the planning phase indicators described in Section 5.1. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A16: Impact on Implementation Indicators - Negotiation Phase

	(1)	(2)	(3)	(4)	(5)	(6)
	Resources contacted (#)	Resources obtained through family (#)	Organizations contacted (#)	Accompaniments to organizations (#)	Organizations know about CEM	Family involvement
T	2.85*** (0.47)	1.09*** (0.21)	2.60*** (0.49)	2.02*** (0.26)	1.24*** (0.30)	0.16 (0.27)
$Post_2$	0.07 (0.06)	0.03 (0.03)	0.06 (0.07)	0.05 (0.04)	0.31 (0.27)	-0.14 (0.16)
$T \times Post_2$	3.06*** (0.47)	0.83*** (0.20)	3.27*** (0.46)	2.07*** (0.26)	0.88*** (0.35)	0.30*** (0.20)
Obs.	994	994	994	994	994	994
R^2	0.52	0.35	0.54	0.58	0.46	0.44
Num. PIDs	499	499	499	499	499	499
Control mean	0.08	0.09	0.08	0.05	2.51	6.85
$\beta_1 + \beta_2$	5.92	1.92	5.87	4.09	2.11	0.46
p -value	0.00	0.00	0.00	0.00	0.00	0.10

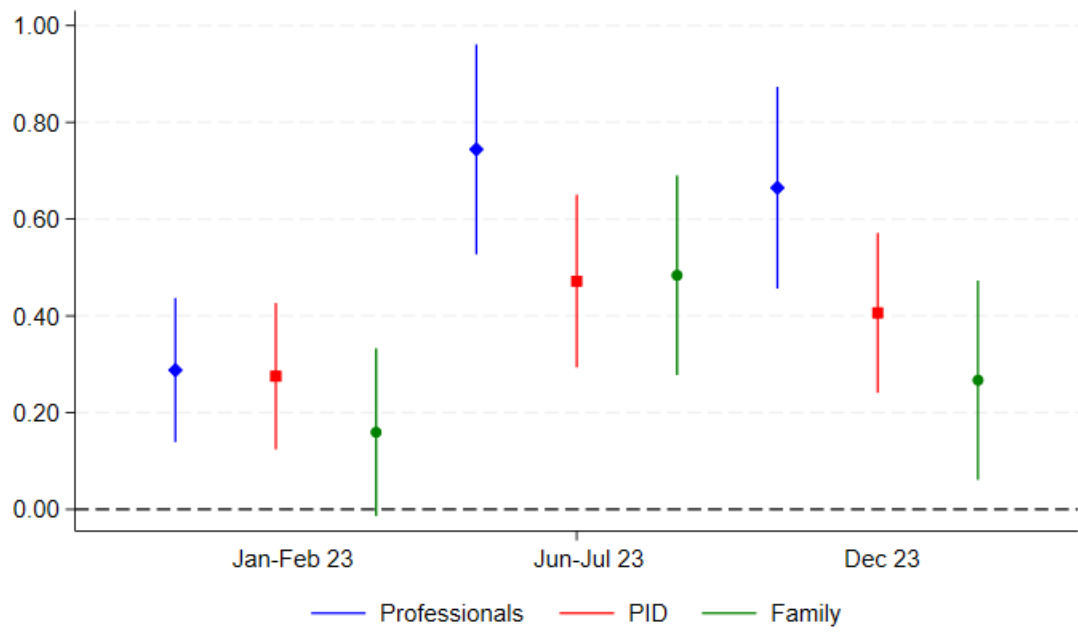
Note: Estimates from equation 3. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and below it we report the p -values to establish the significance of the total impact in this round. Dependent variables are the negotiation phase indicators described in Section 5.1. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure A2: Impact on Self-esteem and Satisfaction



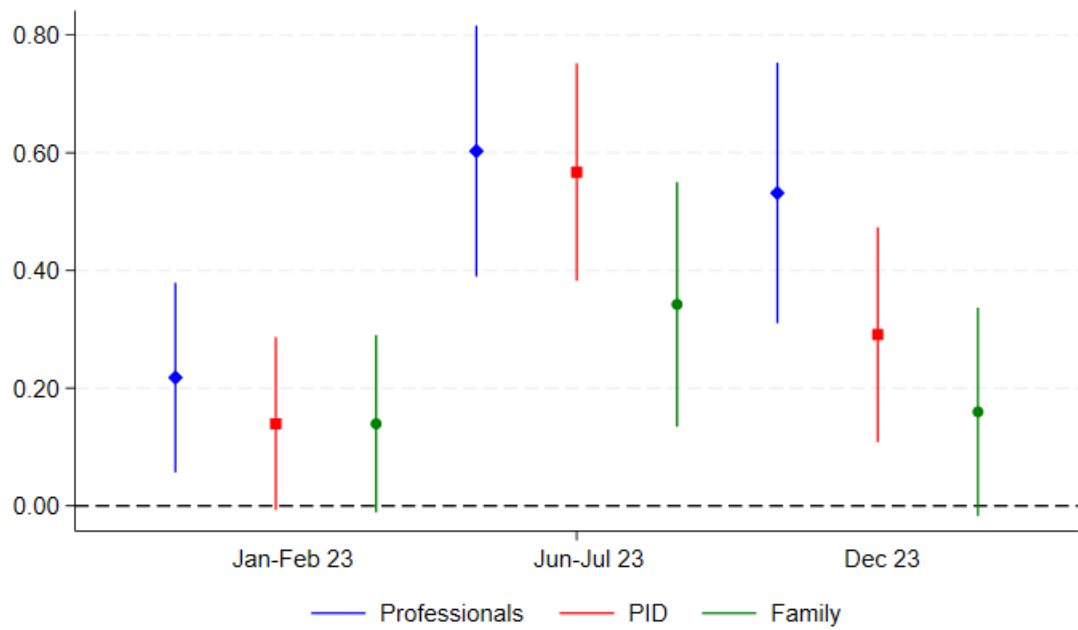
Note: The figure shows the total impact of CE compared to SE in each round using equation 1. Self-esteem and satisfaction are the synthetic indicators aggregating the replies from the three informants to questions RF14 and RF15 detailed in Appendix Table A2. 90% confidence intervals included.

Figure A3: Impact on Self-esteem



Note: The figure shows the total impact of CE compared to SE in each round using equation 1, based on each of the informants. Self-esteem corresponds to question RF14 detailed in Appendix Table A2. 90% confidence intervals included.

Figure A4: Impact on Satisfaction



Note: The figure shows the total impact of CE compared to SE in each round using equation 1, based on each of the informants. Satisfaction corresponds to question RF15 detailed in Appendix Table A2. 90% confidence intervals included.

Table A17: Employment Outcomes from Survey - Initially Unemployed Sample

	(1)	(2)	(3)	(4)	(5)
	Employment	Hours	Contracts	Training	Internships
Treatment	-0.02 (0.03)	-0.48 (0.91)	-0.01 (0.04)	0.13** (0.06)	0.04 (0.21)
$Post_2$	0.05* (0.03)	-0.13 (0.79)	0.01 (0.05)	0.04 (0.04)	0.03 (0.06)
$Post_3$	0.07** (0.03)	1.35 (0.90)	0.12** (0.05)	-0.04 (0.06)	-0.11 (0.19)
Treatment $\times$ $Post_2$	0.08** (0.03)	2.78*** (0.97)	0.14** (0.05)	0.01 (0.06)	0.14 (0.09)
Treatment $\times$ $Post_3$	0.06 (0.05)	1.44 (1.29)	0.17*** (0.06)	0.16** (0.07)	0.54** (0.23)
Observations	1267	1267	1267	1267	1267
R^2	0.18	0.15	0.32	0.24	0.21
Number of PIDs	424	424	424	424	424
Control group mean	0.13	3.21	0.30	0.30	0.51
$\beta_1 + \beta_2$	0.06	2.30	0.12	0.14	0.18
p -value	0.11	0.02	0.02	0.03	0.46
$\beta_1 + \beta_3$	0.04	0.96	0.16	0.28	0.57
p -value	0.38	0.38	0.00	0.00	0.00

Notes: Estimates from equation 1 using the sample of PIDs who were unemployed at the baseline survey. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A18: Social Inclusion and Well-being

	(1)	(2)	(3)
	Inclusion	Volunteering	Well-being
Treatment	0.82***	0.10**	0.16
	(0.12)	(0.04)	(0.13)
$Post_2$	-0.08	-0.01	-0.11
	(0.07)	(0.02)	(0.08)
$Post_3$	-0.03	0.02	-0.05
	(0.10)	(0.02)	(0.09)
Treatment $\times$ $Post_2$	0.16*	0.09**	0.20*
	(0.09)	(0.04)	(0.10)
Treatment $\times$ $Post_3$	0.07	0.05	0.08
	(0.16)	(0.04)	(0.13)
Observations	1252	1267	1236
R^2	0.45	0.34	0.34
Number of PIDs	420	424	420
Control group mean	-0.40	0.10	-0.08
$\beta_1 + \beta_2$	0.98	0.18	0.36
p -value	0.00	0.00	0.00
$\beta_1 + \beta_3$	0.88	0.15	0.24
p -value	0.00	0.00	0.03

Notes: Estimates from equation 1 using the sample of PIDs who were unemployed at the baseline survey. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A19: Heterogeneity by Gender - Employment

	(1)	(2)	(3)	(4)	(5)
	Employment	Hours	Contracts	Training	Internships
Treatment	-0.01 (0.04)	-0.55 (1.12)	-0.01 (0.04)	0.10 (0.06)	-0.12 (0.26)
Treatment $\times$ $Post_2$	0.06 (0.05)	1.59 (1.47)	0.07 (0.06)	-0.04 (0.07)	0.12 (0.11)
Treatment $\times$ $Post_3$	0.02 (0.06)	0.16 (1.74)	0.10 (0.08)	0.14* (0.08)	0.54* (0.29)
Treatment $\times$ Female	0.00 (0.06)	0.05 (1.68)	-0.06 (0.12)	0.00 (0.10)	0.25 (0.22)
Treatment $\times$ Female $\times$ $Post_2$	0.05 (0.08)	0.83 (2.25)	0.20 (0.13)	0.14 (0.11)	0.08 (0.16)
Treatment $\times$ Female $\times$ $Post_3$	0.06 (0.09)	0.86 (2.53)	0.22 (0.17)	-0.02 (0.12)	-0.23 (0.31)
$Post_2$	0.03 (0.03)	-0.19 (1.09)	0.05 (0.06)	0.04 (0.04)	0.02 (0.08)
$Post_3$	0.07 (0.05)	1.79 (1.41)	0.14** (0.06)	-0.04 (0.06)	-0.14 (0.26)
Female	-0.00 (0.05)	-0.85 (1.31)	0.17 (0.11)	-0.03 (0.08)	-0.10 (0.19)
Female $\times$ $Post_2$	0.00 (0.05)	0.70 (1.38)	-0.17 (0.12)	-0.03 (0.06)	-0.05 (0.10)
Female $\times$ $Post_3$	-0.02 (0.07)	-0.02 (1.78)	-0.16 (0.13)	0.08 (0.09)	0.19 (0.27)
Observations	1492	1492	1492	1492	1492
R^2	0.36	0.24	0.36	0.22	0.20
Number of PIDs	499	499	499	499	499
Control group mean	0.26	5.54	0.50	0.29	0.51
$\beta_1 + \beta_2$	0.04	1.04	0.05	0.06	0.00
p -value	0.38	0.38	0.42	0.43	0.99
$\beta_1 + \beta_3$	0.00	-0.39	0.09	0.23	0.41
p -value	0.97	0.79	0.26	0.00	0.00
$\beta_1 + \lambda_1$	-0.01	-0.50	-0.08	0.10	0.13
p -value	0.80	0.68	0.48	0.25	0.27
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	0.09	1.92	0.19	0.20	0.33
p -value	0.08	0.14	0.01	0.02	0.02
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	0.06	0.51	0.25	0.22	0.44
p -value	0.22	0.71	0.01	0.01	0.03

Notes: Estimates from equation 4. Controls include the dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether the PIDs were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measures the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A20: Heterogeneity by Gender - Social Inclusion and Well-being

	(1)	(2)	(3)
	Inclusion	Volunteering	Well-being
Treatment	0.67*** (0.12)	0.11** (0.05)	0.08 (0.12)
Treatment $\times$ $Post_2$	0.18 (0.11)	0.08* (0.04)	0.19* (0.11)
Treatment $\times$ $Post_3$	0.08 (0.14)	0.06 (0.05)	0.17 (0.13)
Treatment $\times$ Female	0.26 (0.16)	0.01 (0.06)	0.01 (0.13)
Treatment $\times$ Female $\times$ $Post_2$	-0.05 (0.12)	0.02 (0.05)	0.07 (0.14)
Treatment $\times$ Female $\times$ $Post_3$	-0.21 (0.20)	-0.01 (0.06)	-0.12 (0.16)
$Post_2$	-0.11 (0.08)	-0.01 (0.02)	-0.06 (0.07)
$Post_3$	-0.08 (0.09)	0.01 (0.02)	-0.10 (0.10)
Female	-0.16 (0.12)	0.02 (0.04)	-0.03 (0.08)
Female $\times$ $Post_2$	0.09 (0.09)	-0.00 (0.03)	-0.12 (0.11)
Female $\times$ $Post_3$	0.21 (0.14)	0.02 (0.03)	0.08 (0.13)
Observations	1477	1492	1458
R^2	0.41	0.34	0.37
Number of PIDs	495	499	495
Control group mean	-0.36	0.08	-0.05
$\beta_1 + \beta_2$	0.85	0.18	0.28
p -value	0.00	0.00	0.02
$\beta_1 + \beta_3$	0.76	0.16	0.26
p -value	0.00	0.00	0.04
$\beta_1 + \lambda_1$	0.93	0.12	0.09
p -value	0.00	0.03	0.53
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	1.06	0.22	0.35
p -value	0.00	0.00	0.01
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	0.81	0.16	0.14
p -value	0.00	0.01	0.24

Notes: Estimates from equation 4. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A21: Differences between Groups by Degree of Disability Above or Below 65%

Variable	(1) Low disability		(2) High disability		(2)-(1) Pairwise <i>t</i> -test	
	Obs.	Mean/(Var)	Obs.	Mean/(Var)	Obs.	<i>p</i> -value
Female	257 52	0.44 (1.24)	245 51	0.42 (1.19)	502 58	0.71
Age	257 52	29.62 (275.89)	245 51	33.53 (318.34)	502 58	0.00***
Education above primary school	257 52	0.46 (1.25)	245 51	0.17 (0.70)	502 58	0.00***
Degree of disability	257 52	41.86 (346.87)	245 51	65.78 (17.83)	502 58	0.00***
Born in Spain	257 52	0.91 (0.43)	245 51	0.92 (0.35)	502 58	0.56
Spanish nationality	257 52	0.97 (0.15)	245 51	0.96 (0.21)	502 58	0.47
# of jobs in last 12 months	256 52	0.57 (2.99)	244 51	0.20 (1.02)	500 58	0.00***
Recognized dependence	256 52	0.33 (1.11)	245 51	0.65 (1.12)	501 58	0.00***
Receives pension	256 52	0.29 (1.04)	244 51	0.86 (0.60)	500 58	0.00***
Pension above IPREM	256 52	0.04 (0.19)	244 51	0.15 (0.61)	500 58	0.00***
Work life project (PID)	257 52	0.72 (1.02)	244 51	0.55 (1.21)	501 58	0.01***
Work life project (family)	254 52	0.72 (0.99)	244 50	0.55 (1.23)	498 58	0.01***
Work life project (prof.)	257 52	0.68 (1.09)	245 51	0.53 (1.22)	502 58	0.01**
Family involvement	257 52	7.09 (38.66)	245 51	6.31 (47.82)	502 58	0.01***
Employment	257 52	0.19 (0.77)	245 51	0.11 (0.50)	502 58	0.08*
Hours	257 52	3.20 (350.06)	245 51	1.62 (143.83)	502 58	0.07*
Contracts	257 52	0.51 (2.16)	245 51	0.23 (1.19)	502 58	0.00***
Training	257 52	0.33 (1.12)	245 51	0.23 (0.86)	502 58	0.08*
Internships	257 52	0.47 (2.82)	245 51	0.39 (2.04)	502 58	0.27
Social inclusion index (std.)	254	0.09	243	-0.08	497	0.20
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Variable	(1)		(2)		(2)-(1)	
	Obs.	Low disability Mean (Var)	Obs.	High disability Mean (Var)	Pairwise <i>t</i> -test Obs. <i>p</i> -value	
	52	(3.55)	50	(6.45)	58	
Volunteering	257	0.07	245	0.12	502	0.06*
	52	(0.31)	51	(0.51)	58	
Well-being index (std.)	162	-0.04	106	0.05	268	0.51
	41	(3.95)	39	(2.81)	49	
Prob. of employment	257	0.22	244	0.09	501	0.00***
	52	(0.64)	51	(0.35)	58	
# of months in nonemployment	257	3.11	244	3.62	501	0.00***
	52	(10.19)	51	(5.59)	58	
Prob of unemp. benefit or subs.	257	0.06	244	0.03	501	0.05*
	52	(0.20)	51	(0.14)	58	
Prob of part-time contract	88	0.76	35	0.65	123	0.23
	38	(0.41)	25	(0.32)	45	
Prob of open-ended contract	88	0.36	35	0.53	123	0.07*
	38	(0.52)	25	(0.35)	45	
Labor Intensity	257	0.17	244	0.08	501	0.00***
	52	(0.50)	51	(0.28)	58	
FTE Labor Intensity	257	0.10	244	0.04	501	0.01***
	52	(0.21)	51	(0.11)	58	
Spell duration	88	352.18	33	787.57	121	0.04**
	38	(614492.74)	25	(2.28e+06)	45	
Spell duration/round	88	0.45	33	0.53	121	0.31
	38	(0.33)	25	(0.22)	45	
# of contracts last 12 months	257	0.70	244	0.21	501	0.00***
	52	(9.36)	51	(1.94)	58	
# of contracts/months in round	257	0.10	244	0.04	501	0.00***
	52	(0.14)	51	(0.06)	58	
# of temporary contracts	257	0.52	244	0.16	501	0.00***
	52	(6.08)	51	(2.14)	58	
Accum. experience	257	254.07	244	169.14	501	0.04**
	52	(687918.28)	51	(672567.27)	58	

Notes: Probability of unemployment benefit or subsidy considers this probability only if the PID is nonemployed. The open-ended contract excludes discontinuous open-ended contracts. These contracts are included with the temporary contracts shown in this table. Spell duration is computed only if employed, and shows total duration in days. Accumulated experience is the total days worked in the last five years (from September 2017 until September 2022). Details about the questions asked in the surveys are included in Appendix Table A3.

Table A22: Heterogeneity by Degree of Disability - Employment

	(1)	(2)	(3)	(4)	(5)
	Employment	Hours	Contracts	Training	Internships
Treatment	-0.03 (0.04)	-2.02* (1.12)	-0.12 (0.09)	0.06 (0.07)	-0.16 (0.27)
Treatment $\times$ $Post_2$	0.06 (0.05)	3.03** (1.44)	0.17 (0.12)	-0.02 (0.07)	-0.02 (0.07)
Treatment $\times$ $Post_3$	0.04 (0.06)	0.98 (1.92)	0.29** (0.12)	0.19** (0.09)	0.35 (0.28)
Treatment $\times$ Disability 65	0.04 (0.05)	3.09** (1.39)	0.17 (0.10)	0.08 (0.10)	0.32 (0.24)
Treatment $\times$ Disability 65 $\times$ $Post_2$	0.04 (0.06)	-2.17 (1.97)	-0.05 (0.13)	0.09 (0.08)	0.36*** (0.12)
Treatment $\times$ Disability 65 $\times$ $Post_3$	0.00 (0.08)	-0.88 (2.44)	-0.20 (0.14)	-0.12 (0.10)	0.17 (0.33)
$Post_2$	0.05 (0.04)	-0.07 (1.09)	-0.03 (0.12)	0.05 (0.05)	0.03 (0.06)
$Post_3$	0.10* (0.05)	2.70 (1.71)	0.06 (0.12)	-0.04 (0.06)	-0.22 (0.28)
Disability 65	-0.14*** (0.05)	-4.03*** (1.19)	-0.18 (0.11)	-0.13** (0.06)	-0.41 (0.29)
Disability 65 $\times$ $Post_2$	-0.05 (0.05)	0.38 (1.24)	0.02 (0.12)	-0.04 (0.05)	-0.06 (0.10)
Disability 65 $\times$ $Post_3$	-0.07 (0.06)	-1.88 (1.89)	0.03 (0.11)	0.06 (0.07)	0.35 (0.31)
Observations	1492	1492	1492	1492	1492
R^2	0.38	0.25	0.37	0.23	0.21
Number of PIDs	499	499	499	499	499
Control group mean	0.26	5.54	0.50	0.29	0.51
$\beta_1 + \beta_2$	0.03	1.01	0.05	0.04	-0.18
p -value	0.65	0.48	0.53	0.64	0.54
$\beta_1 + \beta_3$	0.01	-1.04	0.17	0.25	0.19
p -value	0.89	0.55	0.03	0.00	0.07
$\beta_1 + \lambda_1$	0.01	1.07	0.05	0.14	0.16
p -value	0.83	0.27	0.21	0.05	0.24
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	0.11	1.93	0.18	0.21	0.49
p -value	0.02	0.09	0.01	0.01	0.00
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	0.05	1.17	0.14	0.21	0.67
p -value	0.26	0.27	0.05	0.01	0.00

Notes: Estimates from equation 4. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A23: Heterogeneity by Degree of Disability - Social Inclusion and Well-being

	(1) Inclusion	(2) Volunteering	(3) Well-being
Treatment	0.57*** (0.12)	0.09* (0.05)	0.12 (0.15)
Treatment $\times$ $Post_2$	0.16 (0.13)	0.12** (0.05)	0.15* (0.09)
Treatment $\times$ $Post_3$	0.11 (0.13)	0.07 (0.05)	0.03 (0.13)
Treatment $\times$ Disability 65	0.44** (0.18)	0.06 (0.06)	-0.08 (0.17)
Treatment $\times$ Disability 65 $\times$ $Post_2$	-0.01 (0.18)	-0.06 (0.06)	0.15 (0.16)
Treatment $\times$ Disability 65 $\times$ $Post_3$	-0.23 (0.24)	-0.04 (0.06)	0.20 (0.19)
$Post_2$	-0.09 (0.10)	-0.03 (0.02)	-0.00 (0.06)
$Post_3$	-0.10 (0.09)	0.00 (0.03)	-0.02 (0.09)
Disability 65	-0.40*** (0.12)	0.01 (0.03)	0.16 (0.14)
Disability 65 $\times$ $Post_2$	0.02 (0.13)	0.05 (0.03)	-0.22 (0.13)
Disability 65 $\times$ $Post_3$	0.22 (0.21)	0.04 (0.04)	-0.09 (0.15)
Observations	1477	1492	1458
R^2	0.42	0.35	0.37
Number of PIDs	495	499	495
Control group mean	-0.36	0.08	-0.05
$\beta_1 + \beta_2$	0.73	0.20	0.28
p -value	0.00	0.00	0.03
$\beta_1 + \beta_3$	0.68	0.16	0.15
p -value	0.00	0.00	0.27
$\beta_1 + \lambda_1$	1.01	0.14	0.04
p -value	0.00	0.01	0.73
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	1.16	0.20	0.34
p -value	0.00	0.00	0.02
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	0.89	0.17	0.27
p -value	0.00	0.00	0.06

Notes: Estimates from equation 4. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A24: Heterogeneity by Recognized Dependency - Employment

	(1) Employment	(2) Hours	(3) Contracts	(4) Training	(5) Internships
Treatment	0.03 (0.04)	0.02 (1.08)	-0.02 (0.10)	0.07 (0.07)	-0.25 (0.25)
Treatment $\times$ $Post_2$	0.11** (0.05)	3.50** (1.58)	0.26** (0.12)	0.02 (0.06)	0.15 (0.11)
Treatment $\times$ $Post_3$	0.06 (0.07)	1.99 (2.00)	0.33*** (0.12)	0.18** (0.08)	0.45 (0.34)
Treatment $\times$ Dep. Rec.	-0.09 (0.05)	-1.20 (1.22)	-0.05 (0.13)	0.05 (0.10)	0.50** (0.21)
Treatment $\times$ Dep. Rec. $\times$ $Post_2$	-0.06 (0.06)	-3.16 (1.97)	-0.23* (0.13)	0.01 (0.09)	0.01 (0.15)
Treatment $\times$ Dep. Rec. $\times$ $Post_3$	-0.04 (0.08)	-3.02 (2.44)	-0.27* (0.15)	-0.11 (0.11)	-0.02 (0.36)
Dep. Rec.	-0.02 (0.04)	-1.00 (1.29)	-0.10 (0.11)	-0.19*** (0.07)	-0.39 (0.24)
$Post_2$	0.00 (0.04)	-1.30 (0.91)	-0.10 (0.12)	-0.00 (0.05)	0.04 (0.06)
$Post_3$	0.04 (0.05)	0.60 (1.46)	0.02 (0.13)	-0.06 (0.07)	-0.12 (0.32)
Dep. Rec. $\times$ $Post_2$	0.05 (0.05)	2.92** (1.28)	0.15 (0.13)	0.06 (0.07)	-0.08 (0.10)
Dep. Rec. $\times$ $Post_3$	0.04 (0.06)	2.47 (1.86)	0.10 (0.15)	0.10 (0.09)	0.13 (0.32)
Observations	1489	1489	1489	1489	1489
R^2	0.37	0.24	0.37	0.23	0.21
Number of PIDs	498	498	498	498	498
Control group mean	0.32	7.37	0.58	0.29	0.45
$\beta_1 + \beta_2$	0.13	3.52	0.25	0.09	-0.11
p -value	0.02	0.01	0.01	0.22	0.72
$\beta_1 + \beta_3$	0.09	2.01	0.31	0.25	0.20
p -value	0.15	0.21	0.00	0.00	0.31
$\beta_1 + \lambda_1$	-0.06	-1.18	-0.07	0.13	0.25
p -value	0.07	0.23	0.18	0.08	0.11
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	-0.01	-0.83	-0.03	0.15	0.41
p -value	0.80	0.40	0.46	0.11	0.01
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	-0.04	-2.21	-0.01	0.20	0.68
p -value	0.42	0.08	0.88	0.01	0.00

Notes: Estimates from equation 4. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A25: Heterogeneity by Recognized Dependency - Social Inclusion and Well-being

	(1) Inclusion	(2) Volunteering	(3) Well-being
Treatment	0.69*** (0.13)	0.07* (0.04)	0.14 (0.13)
Treatment $\times$ $Post_2$	0.18 (0.12)	0.12*** (0.04)	0.13 (0.09)
Treatment $\times$ $Post_3$	-0.03 (0.19)	0.05 (0.05)	0.05 (0.15)
Treatment $\times$ Dep. Rec.	0.21 (0.17)	0.09 (0.06)	-0.11 (0.16)
Treatment $\times$ Dep. Rec. $\times$ $Post_2$	-0.06 (0.14)	-0.06 (0.07)	0.18 (0.17)
Treatment $\times$ Dep. Rec. $\times$ $Post_3$	0.05 (0.21)	0.01 (0.07)	0.14 (0.20)
Dep. Rec.	-0.36** (0.14)	0.01 (0.04)	0.14 (0.14)
$Post_2$	-0.14 (0.09)	-0.01 (0.03)	-0.06 (0.06)
$Post_3$	-0.03 (0.16)	0.03 (0.03)	-0.02 (0.10)
Dep. Rec. $\times$ $Post_2$	0.14 (0.10)	-0.00 (0.04)	-0.08 (0.12)
Dep. Rec. $\times$ $Post_3$	0.07 (0.15)	-0.01 (0.03)	-0.09 (0.14)
Observations	1475	1489	1456
R^2	0.42	0.35	0.37
Number of PIDs	494	498	494
Mean	-0.35	0.10	-0.10
$\beta_1 + \beta_2$	0.86	0.19	0.27
p -value	0.00	0.00	0.04
$\beta_1 + \beta_3$	0.65	0.11	0.19
p -value	0.00	0.02	0.14
$\beta_1 + \lambda_1$	0.90	0.16	0.03
p -value	0.00	0.01	0.84
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	1.02	0.22	0.33
p -value	0.00	0.00	0.01
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	0.92	0.22	0.22
p -value	0.00	0.00	0.15

Notes: Estimates from equation 4. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A26: Heterogeneity by Family Involvement - Employment

	(1)	(2)	(3)	(4)	(5)
	Employment	Hours	Contracts	Training	Internships
Treatment	-0.02 (0.04)	-0.86 (1.06)	-0.05 (0.08)	0.19** (0.08)	0.19 (0.15)
Treatment $\times$ $Post_2$	0.11** (0.04)	4.74*** (1.36)	0.19* (0.09)	0.01 (0.09)	0.19 (0.12)
Treatment $\times$ $Post_3$	0.10* (0.06)	3.29* (1.89)	0.26** (0.10)	0.15 (0.09)	0.42** (0.16)
Treatment $\times$ Highly involved	0.00 (0.05)	0.47 (1.78)	0.05 (0.10)	-0.20** (0.09)	-0.45** (0.21)
Treatment $\times$ Highly involved $\times$ $Post_2$	-0.06 (0.06)	-5.58*** (1.91)	-0.09 (0.09)	0.02 (0.09)	-0.06 (0.15)
Treatment $\times$ Highly involved $\times$ $Post_3$	-0.12* (0.07)	-5.53** (2.35)	-0.15 (0.14)	-0.04 (0.12)	0.09 (0.37)
Highly involved	-0.00 (0.05)	0.50 (1.64)	-0.20** (0.10)	0.13** (0.06)	0.44* (0.24)
$Post_2$	0.00 (0.03)	-1.10 (0.82)	-0.10 (0.10)	0.02 (0.05)	0.04 (0.05)
$Post_3$	0.02 (0.04)	0.72 (1.23)	-0.02 (0.10)	-0.01 (0.07)	0.12 (0.10)
Highly involved $\times$ $Post_2$	0.06 (0.04)	2.60** (1.29)	0.17* (0.09)	0.01 (0.06)	-0.09 (0.11)
Highly involved $\times$ $Post_3$	0.09* (0.05)	2.30 (1.65)	0.19* (0.11)	-0.00 (0.09)	-0.39 (0.33)
Observations	1492	1492	1492	1492	1492
R^2	0.36	0.24	0.37	0.23	0.20
Number of PIDs	499	499	499	499	499
Control group mean	0.32	7.34	0.57	0.29	0.45
$\beta_1 + \beta_2$	0.09	3.87	0.13	0.20	0.38
p-value	0.07	0.01	0.04	0.01	0.02
$\beta_1 + \beta_3$	0.08	2.43	0.21	0.34	0.60
p-value	0.13	0.15	0.01	0.00	0.00
$\beta_1 + \lambda_1$	-0.01	-0.40	0.00	-0.01	-0.26
p-value	0.74	0.77	0.98	0.88	0.33
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	0.03	-1.24	0.10	0.02	-0.13
p-value	0.59	0.44	0.21	0.83	0.66
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	-0.03	-2.64	0.11	0.10	0.25
p-value	0.57	0.11	0.28	0.17	0.11

Notes: Estimates from equation 4. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p -values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table A27: Heterogeneity by Family Involvement - Social Inclusion and Well-being

	(1)	(2)	(3)
	Inclusion	Volunteering	Well-being
Treatment	0.91*** (0.17)	0.12** (0.06)	0.13 (0.14)
Treatment $\times$ $Post_2$	0.26** (0.11)	0.04 (0.05)	0.23* (0.13)
Treatment $\times$ $Post_3$	0.11 (0.22)	0.03 (0.06)	0.17 (0.15)
Treatment $\times$ Highly involved	-0.31 (0.20)	-0.03 (0.08)	-0.12 (0.17)
Treatment $\times$ Highly involved $\times$ $Post_2$	-0.20 (0.17)	0.09 (0.07)	-0.01 (0.17)
Treatment $\times$ Highly involved $\times$ $Post_3$	-0.21 (0.20)	0.05 (0.07)	-0.08 (0.18)
Highly involved	0.40*** (0.15)	0.05 (0.04)	0.31** (0.14)
$Post_2$	-0.08 (0.08)	0.02 (0.02)	-0.09 (0.09)
$Post_3$	0.05 (0.12)	0.03 (0.02)	-0.00 (0.10)
Highly involved $\times$ $Post_2$	0.01 (0.12)	-0.07** (0.03)	-0.04 (0.12)
Highly involved $\times$ $Post_3$	-0.09 (0.14)	-0.02 (0.04)	-0.12 (0.14)
Observations	1477	1492	1458
R^2	0.43	0.35	0.37
Number of PIDs	495	499	495
Control group mean	-0.36	0.10	-0.10
$\beta_1 + \beta_2$	1.17	0.17	0.35
p-value	0.00	0.00	0.02
$\beta_1 + \beta_3$	1.02	0.15	0.30
p-value	0.00	0.01	0.02
$\beta_1 + \lambda_1$	0.60	0.10	0.01
p-value	0.00	0.09	0.95
$\beta_1 + \lambda_1 + \beta_2 + \lambda_2$	0.66	0.23	0.23
p-value	0.00	0.00	0.12
$\beta_1 + \lambda_1 + \beta_3 + \lambda_3$	0.51	0.17	0.10
p-value	0.01	0.01	0.47

Notes: Estimates from equation 1. Controls include dependent variable at baseline, stratification variables (i.e., gender and locality fixed effects), volunteering at baseline, and whether they were employed at baseline. We report the mean of the dependent variable in the control group in the round $Post_1$. For men, $\beta_1 + \beta_2$ measure the total causal impact in round $Post_2$, and $\beta_1 + \beta_3$ is the corresponding estimate for round $Post_3$. For women, we report the causal impact in $Post_1$ ($\beta_1 + \lambda_1$), in $Post_2$ ($\beta_1 + \lambda_1 + \beta_2 + \lambda_2$), and in $Post_3$ ($\beta_1 + \lambda_1 + \beta_3 + \lambda_3$). Below each of them, we report the p-values to establish the significance of the total impact in each round. Standard errors in parentheses, clustered at the locality level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$