Inclusion Policy Lab: Evaluation results

Plena Inclusión - Personalized Employment Project for the Social Inclusion of Persons with Intellectual Disabilities

April 2024

Financiado por la Unión Europea NextGenerationEU
MINISTERIO DE INCLUSIÓN, SEGURIDAD SOCIAL Y MIGRACIONES
Plan de Recuperación, Transformación y Resiliencia
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This report has been prepared by the General Secretariat for Inclusion of the Ministry of Inclusion, Social Security, and Migration within the framework of the Inclusion Policy Lab, as part of the Recovery, Transformation, and Resilience Plan (RTRP), with funding from the Next Generation EU funds. As the agency in charge of carrying out the project, the Confederación Plena Inclusión has participated in the writing of this report. This collaborating organization is of the implementers of the pilot projects and has collaborated with the SGI for the design of the RCT methodology, actively participating in the provision of the necessary information for the design, monitoring, and evaluation of the social inclusion itinerary. Likewise, their collaboration has been essential to gathering informed consent, ensuring that the participants in the itinerary were adequately informed and that their participation was voluntary.

A research team coordinated by CEMFI (Center for Monetary and Financial Studies) has substantially contributed to this study. Specifically, Yanina Domenella (CEMFI) has participated under the coordination of Mónica Martínez-Bravo (until January 8th, 2024) and Samuel Bentolila, professors at CEMFI. The researchers have actively participated in all phases of the project, including the adaptation of the initial proposal to the needs of the evaluation through randomized experiments, the evaluation design, the design of measurement instruments, data processing, and the performance of econometric estimations that lead to quantitative results.

The partnership with J-PAL Europe has been a vital role in the efforts of the General Secretariat of Inclusion to improve social inclusion in Spain. Their team has provided technical support and shared international experience, assisting the General Secretariat in the comprehensive evaluation of pilot programs. Throughout this partnership, J-PAL Europe has consistently demonstrated a commitment to fostering evidence-based policy adoption and facilitating the integration of empirical data into strategies that seek to promote inclusion and progress within our society.

This evaluation report has been produced using the data available at the time of its writing and it is based on the knowledge acquired about the project up to that date. The researchers reserve the right to clarify, modify, or delve into the results presented in this report in future publications. These potential variations could be based on the availability of additional data, advances in evaluation methodologies, or the emergence of new information related to the project that may affect the interpretation of the results. The researcher is committed to continuing exploring and providing more accurate and updated results for the benefit of the scientific community and society in general.

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Index

Executive Summary

- The **Minimum Income Scheme,** established in May 2020, is a minimum income policy that aims to guarantee a minimum income to vulnerable groups and provide ways to promote their social and labor integration.
- Within the framework of this policy, the Ministry of Inclusion, Social Security, and Migration (MISSM) fosters a strategy to promote inclusion through pilot projects of social innovation, which are conducted in the **Inclusion Policy Lab**. These projects are evaluated according to the standards of scientific rigor and using the methodology of Randomized Controlled Trials.
- This document presents the evaluation results and main findings of the "Personalized Employment Project for the Social Inclusion of persons with Intellectual Disabilities" which has been performed in **cooperation between the Ministry of Inclusion, Social Security and Migration (MISSM) and Confederación Plena Inclusión.**
- This study evaluates a new **model of personalized labor insertion support** for people with intellectual and/or developmental disabilities, compared to **the traditional support model of Plena Inclusión.** While the **treatment group** is part of the new "Personalized Employment Program" model of labor insertion support, the **control group** receives only the traditional labor insertion support used by Plena Inclusión.
- The project took place in **twelve autonomous communities** (Andalusia, Aragon, Canary Islands, Castilla y León, Catalonia, Community of Madrid, Valencian Community, Extremadura, Galicia, La Rioja, Principality of Asturias and Region of Murcia) and **in one autonomous city** (Ceuta). Up to a total of 512 participated in the project, to reach the target number of 502 people with intellectual and/or developmental disabilities originally planned in the design (251 in the treatment group and 251 in the control group). Subsequently, the study focuses on people from this group without previous work, 435 people (232 in the treatment group and 203 in the control group).
- In relation to the main socio-demographic characteristics of the participants: 43% are women and the average age is 32 years. The educational level of the participants is low, being higher than primary education in only 32% of the cases. 92% were born in Spain and 97% have Spanish nationality. The average degree of disability of the participants is high, at 54%, ranging from 33% to 78%, and greater than 65% in 51% of cases. 48% of the participants have officially recognized dependency and 58% receive a pension.
- The degree of participation throughout the intervention is high. On the one hand, 96.1% of the people assigned to the treatment group answered the final survey of the itinerary having participated consistently in the "Personalized Employment Program". On the other hand, 98.5% of the people assigned to the control group responded to the final survey of the project, having consistently participated in the traditional support model for labor insertion.

- The main results of the evaluation are as follows:
    - **Increase in working hours and number of employment contracts:** Although the "Personalized Employment Program" does not have an impact on the employment rate of participants, it induces more working hours and more employment contracts for people in the treatment group. This disparity in results between the employment rate, working hours and employment contracts may be due to the high level of temporary employment in the Spanish labor market. While the increase in contracts indicates an increase in the employability of people with intellectual disabilities, job instability and temporary employment could have caused these people to lose their jobs before completing full treatment.
    - **Improvement in social inclusion and well-being:** the "Personalized Employment Program" generates higher levels of social inclusion and well-being. Specifically, the intervention in the treatment group increases the indicator of social inclusion, volunteering activities and well-being by 0.95 standard deviations, 20 percentage points and 0.38 standard deviations, respectively.

1 Introduction

General Regulatory Framework

The Minimum Income Scheme (MIS), regulated by Law 19/2021[1], is an economic benefit whose main objective is to prevent the risk of poverty and social exclusion of people in situations of economic vulnerability. Thus, it is part of the protective action of the Social Security system in its non-contributory modality and responds to the recommendations of various international organizations to address the problem of inequality and poverty in Spain.

The provision of the MIS has a double objective: to provide economic support to those who need it most and to promote social inclusion and employability in the labor market. This is one of the social inclusion policies designed by the General State Administration, together with the support of Autonomous Communities, the Third Sector of Social Action and local corporations[2]. It is a central policy of the Welfare State that aims to provide minimum economic resources to all individuals in Spain, regardless of where they live.

Within the framework of the National Recovery, Transformation, and Resilience Plan (RTRP),[3] the General Secretariat of Inclusion (onwards, SGI by its acronym in Spanish) of the Ministry of Inclusion, Social Security, and Migration (MISSM) participates significantly in Component 23 "New public policies for a dynamic, resilient, and inclusive labor market", framed in Policy Area VIII: "New care economy and employment policies".

Investment 7: "Promotion of Inclusive Growth by linking socio-labor inclusion policies to the Minimum Income Scheme" is among the reforms and investments proposed in this Component 23. Investment 7 promotes the implementation of a new model of inclusion based on the MIS which reduces income inequality and poverty rates. Therefore, the MIS goes beyond being a mere economic benefit and supports the development of a series of complementary programs that promote socio-labor inclusion. However, the range of possible inclusion programs is very wide, and the government decides to pilot different programs and interventions to evaluate them and generate knowledge that allows prioritizing certain actions. With the support of investment 7 under component 23, the MISSM establishes a new framework for pilot inclusion projects constituted in two phases through two royal decrees covering a set of pilot projects based on experimentation and evaluation:

[1] Law 19/2021, of December 20, establishing the Minimum Income Scheme (BOE-A-2021-21007).

[2] Article 31.1 of Law 19/2021, of December 20, 2021, establishing the Minimum Income Scheme.

[3] The Recovery, Transformation, and Resilience Plan refers to the Recovery Plan for Europe, which was designed by the European Union in response to the economic and social crisis triggered by the COVID-19 pandemic. This plan, also known as Next Generation EU, sets out a framework for the allocation of recovery funds and for boosting the transformation and resilience of member countries' economies.

- **Phase I: Royal Decree 938/2021**[4], through which the MISSM grants subsidies for the execution of 16 pilot projects of inclusion pathways corresponding to autonomous communities, local organizations, and the Third Sector of Social Action organizations. This royal decree contributed to the fulfillment of milestone number 350[5] and monitoring indicator 351.1[6] of the RTRP.
- **Phase II: Royal Decree 378/2022**[7], which grants subsidies for a total of 18 pilot projects of inclusion pathways executed by autonomous communities, local organizations, and the Third Sector of Social Action organizations. Along with the preceding Royal Decree, this one helped the RTRP's monitoring indicator number 351.1 to be fulfilled.

To support the implementation of evidence-based public and social policies, the Government of Spain decided to evaluate the social inclusion pilot projects using the Randomized Controlled Trial (RCT) methodology. This methodology, which has gained relevance in recent years, represents one of the most rigorous tools to measure the causal impact of a public policy intervention or a social program on indicators of interest, such as social and labor insertion or the well-being of beneficiaries.

Specifically, RCT is an experimental method of impact evaluation in which a representative sample of the population potentially benefiting from a public program or policy is randomly assigned either to a group receiving the intervention or to a comparison group that does not receive the intervention for the duration of the evaluation. Thanks to the random allocation of the program, this methodology can statistically identify the causal impact of an intervention on a series of variables of interest. This methodology enables us to analyze the effect of this measure, which helps determine whether the policy is adequate to achieve the planned public policy objectives. Experimental evaluations enable us to obtain rigorous results of the intervention effect, i.e., what changes the participants have experienced in their lives due to the intervention. In addition, these evaluations provide an exhaustive analysis of the program and its effects, providing insights into why the program was effective, who has benefited most from the interventions, whether there were indirect or unexpected effects, and which components of the intervention worked, and which did not.

[4] Royal Decree 938/2021, of October 26, 2021, which regulates the direct granting of subsidies from the Ministry of Inclusion, Social Security, and Migration in the field of social inclusion, for an amount of €109,787,404, within the framework of the Recovery, Transformation, and Resilience Plan (BOE-A-2021-17464).

[5] Milestone 350 of the RTRP: "Improve the rate of access to the Minimum Income Scheme and increase the effectiveness of the MIS through inclusion policies, which, according to its description, will translate into supporting the socio-economic inclusion of the beneficiaries of the MIS through itineraries: eight collaboration agreements signed with subnational public administrations, social partners and social action entities of the third sector to conduct the itineraries. The objectives of these partnership agreements are: (i) to improve the MVI access rate; ii) increase the effectiveness of the MVI through inclusion policies."

[6] Monitoring indicator 351.1 of the RTRP: "at least 10 additional collaboration agreements signed with subnational public administrations, social partners and social action entities of the third sector to conduct pilot projects to support the socio-economic inclusion of MVI beneficiaries through itineraries".

[7] Royal Decree 378/2022, of May 17, 2022, regulating the direct granting of subsidies from the Ministry of Inclusion, Social Security, and Migration in the field of social inclusion, for an amount of €102,036,066, within the framework of the Recovery, Transformation and Resilience Plan (BOE-A-2022-8124).

These evaluations have focused on the promotion of social and labor inclusion among MIS beneficiaries, recipients of regional minimum incomes, and other vulnerable groups. In this way, the MISSM establishes a design and impact evaluation of results-oriented inclusion policies, which offers evidence for decision-making and its potential application in the rest of the territories. The promotion and coordination of 32 pilot projects by the Government of Spain has led to the establishment of a laboratory for innovation in public policies of global reference named the Inclusion Policy Lab.

For the implementation and development of the Inclusion Policy Lab, the General Secretariat of Inclusion has established a governance framework that has made it possible to establish a clear and potentially scalable methodology for the design of future evaluations and promoting of decision-making based on empirical evidence. The General State Administration has had a triple role as promoter, evaluator and executive of the different programs. Different regional and local administrations and the Third Sector of Social Action organizations have implemented the programs, collaborating closely in all their facets, including evaluation and monitoring. In addition, the Ministry has had the academic and scientific support of the Abdul Latif Jameel Poverty Action Lab (J-PAL) Europe and the Centre for Monetary and Financial Studies (CEMFI), as strategic partners to ensure scientific rigor in the assessments. Likewise, the Inclusion Policy Lab has an Ethics Committee[8], which has ensured the strictest compliance with the protection of the rights of the people participating in the social inclusion itineraries.

This report refers to “Personalized Employment Project for the Social Inclusion of persons with Intellectual Disabilities", executed within the framework of Royal Decree 938/2021[9] by Confederación Plena Inclusión. This report contributes to the fulfillment of milestone 351 of the RTRP: "Following the completion of at least 18 pilot projects, the publication of an evaluation on the coverage, effectiveness and success of the MIS, including recommendations to increase the level of application and improve the effectiveness of social inclusion policies".

Context of the project

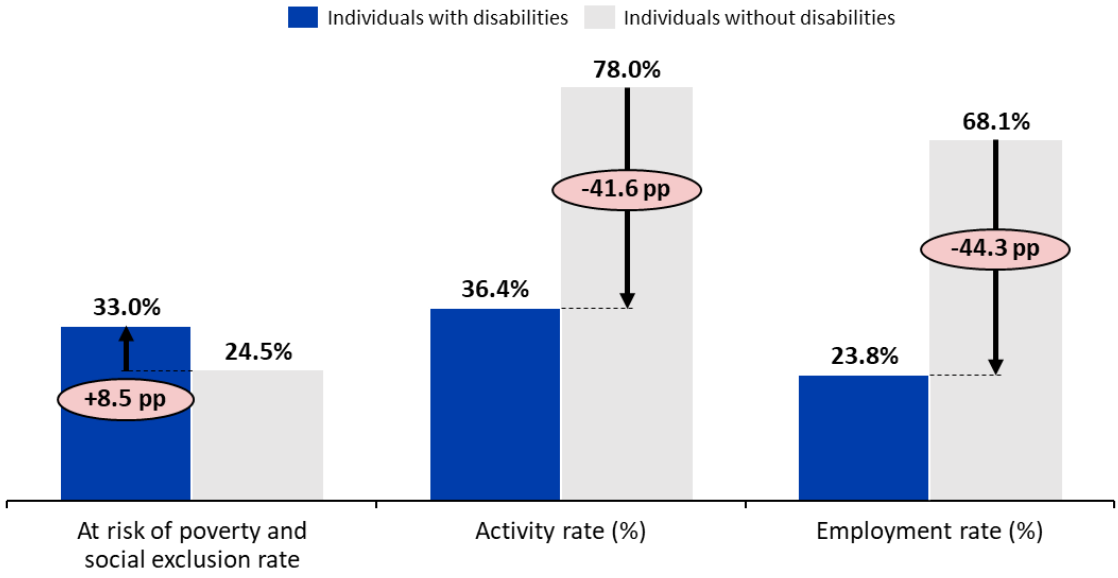
In 2022, Spain had 201,000 persons with intellectual disabilities, representing 12.6% of the total number of people with disabilities (INE, 2023). These persons face significant difficulties in accessing the labor market, as indicated by their low activity rates (36.4%) and employment rates (23.8%), compared to 78% and 68.1% for the general population. Employment has been associated with a higher level of life satisfaction, being a source of self-esteem, and self-control for these people.

[8] Regulated by Order ISM/208/2022, of March 10, 2022, which creates the Ethics Committee linked to social inclusion itineraries, on 22/07/2022 it issued a favorable report for the realization of the project that is the subject of the report.

[9] On the 2nd of December 2021, an agreement was signed between the General State Administration, through the SGOPIPS, and Confederación Plena Inclusion España for the implementation of a project for social inclusion within the framework of the Recovery, Transformation, and Resilience Plan, which was published in the "Official State Gazette" on the 2nd of February 2022 (BOE no. 28).

People with disabilities, regardless of type, also experience higher rates of poverty and risk of social exclusion. In 2021, the AROPE rate[10] for persons with disabilities aged 16 and over was 33%, compared to 24.5% for people without disabilities, according to calculations based on microdata from the Living Conditions Survey (EAPN, 2022).

Figure 1: Gap between people with and without disabilities in Spain



Fuente: EAPN (2022) and INE

In terms of social inclusion and well-being, 43% of people with intellectual and/or developmental disabilities who participated in the 2020 Survey on Disability, Personal Autonomy and Dependency Situations (INE, 2022), responded that they did not interact with any friend, neighbor, or acquaintance in the last 12 months. In addition, 13% felt discriminated against because of their disability in their social relationships, leisure time and travel, and in the company or workplace.

On the other hand, a review of the available data on the employment situation of people with intellectual disabilities, collected by the Observatory on Disability and the Labor Market in Spain (ODISMET), highlights the employment opportunities for these people. Thus, for example, during the 2020 lockdown, 70.9%[11] of people with disabilities who were working were unable to do so.

In addition, there are differences between socio-demographic characteristics that condition the way in which they participate in the labor market, such as being a woman, being between 16 and 24 years

[10] The at-risk-of-poverty or social exclusion rate (AROPE) was modified in 2021 in line with the new objectives of the Europe 2030 strategy. It is defined as the population that is in at least one of these three situations: risk of poverty, severe material and social deprivation, and low employment intensity.

[11] INICO: Navas, P. Verdugo, M.A. Crespo, M. Martínez, S. (2020) "COVID y discapacidades intelectuales y del desarrollo". Plena inclusión. Available at: https://www.plenainclusion.org/publicaciones/buscador/informe-covid-19-y-discapacidades-intelectuales-y-del-desarrollo-2020/

old, having greater support needs and not having had access to qualified training (due to the barriers encountered in training). The unemployment rate is slightly higher among women (than the unemployment rate of men with disabilities) and much higher among young people with disabilities than in the rest of the over-25 age groups. On the other hand, activity and employment rates are significantly reduced in people with a degree of disability greater than 65%.

Finally, it is important to emphasize that in 2019, the average salary for persons with intellectual disabilities was €11,563.00. They face greater barriers when competing for employment unless necessary accommodations and reasonable adjustments are made during the selection and hiring process.

General and regulatory framework associated with the project and the governance structure

This pilot project is in line with the framework established in the 2030 Agenda and the Sustainable Development Goals (SDGs). In particular, the project is aligned with European and national strategies related to social and labor inclusion of people with intellectual disabilities, as well as with the 2030 Agenda for Sustainable Development, specifically contributing to SDGs numbered 1, 8 and 10.

In relation to the acquis of international organizations, the Convention on the Rights of Persons with Disabilities stands out, aiming to "promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity".

On the other hand, at the European level, within the framework of the European Pillar of Social Rights, the Strategy on the Rights of Persons with Disabilities for the period 2021-2030, in accordance with the objectives of the Convention on the Rights of Persons with Disabilities, stands out.

In Spain, the recent reform of article 49 of the Spanish Constitution, of 15 February 2024, in relation to people with disabilities, as well as all its implementing regulations, highlights. Royal Legislative Decree 1/2013, of November 29, 2013, approving the Revised Text of the General Law on the Rights of Persons with Disabilities and their Social Inclusion. On the other hand, there is abundant specific and sectoral legislation in areas such as accessibility, culture, right to life, education, emergencies, employment and social responsibility, forced sterilization, childhood, justice, tax and financial legislation, political participation, social protection, and health. Regarding strategic documents, the Spanish Disability Strategy 2022-2030 stands out, which is deployed through six lines of action. This strategy, in its Axis 1, Objective 2, includes among the lines of action and measures at the national level that of "... promoting effective formulas for inclusion in regular employment, such as supported employment and personalized employment".

The scientific objective of the project is to evaluate the effectiveness and efficiency of the support model for access to employment defined within personalized employment in relation to other traditional models of intervention in this area. In addition, it is intended to promote the transfer of knowledge to the process of public policy development and to be accountable for the results of the project.

The governance framework establish for the correct execution and evaluation of the project includes the following actors:

- **Confederación Plena Inclusión España** is the entity responsible for the execution of the project. Founded in 1964, it is a Third Sector entity whose mission is to help people with intellectual and/or developmental disabilities and their families develop their quality-of-life project and promote their inclusion as citizens. It involves 17 regional federations, three state entities and two entities in Ceuta and Melilla, totaling 950 member entities. They serve 150,000 people with intellectual and/or developmental disabilities through various projects.

  The outstanding experience of Plena Inclusión España in the care of people with intellectual and/or developmental disabilities and its extensive collaboration with public institutions, private companies and entities of the Third Sector of Social Action, endorse its suitability as a partner for the execution of this project.

  Within the framework of the project, 12 of the Autonomous Federations of Plena Inclusión and the association of the Autonomous City of Ceuta are involved, as member entities and beneficiaries of the project. In addition, 44 third-level entities, which implement the project together with the applicant entity and have a series of specific tasks and commitments, as well as an assigned budget. Their form of collaboration will be done through subcontracting.

  The project has the support of the Institute for Research in the Psychology of Human Resources, Organizational Development and Quality of Work Life, of the University of Valencia (IDOCAL), a statewide collaborating entity, as technical assistance to Plena Inclusión in follow-up issues and tasks related to the RCT evaluation.

- The **Ministry of Inclusion, Social Security and Migration** (MISSM) is the funding source of the project and responsible for the RCT evaluation process. Thus, the **General Secretariat of Inclusion** (in Spanish, SGI) assumes the following commitments to Plena Inclusión:
  - Providing support to the beneficiary organization in the design of actions to be conducted for the execution and monitoring of the grant object, as well as profiling potential participants in the pilot project.
  - Designing the randomized controlled trial (RCT) methodology of the pilot project in coordination with the beneficiary organization and scientific collaborators. Additionally, conducting the project evaluation.
  - Ensuring strict compliance with ethical considerations by obtaining approval from the Ethics Committee.

- **CEMFI and J-PAL Europe** are scientific and academic institutions that support MISSM in the design and RCT evaluation of the project.

In view of the above, this report follows the following structure: **section 2** provides a project description, detailing the issues to address, the target audience for the intervention, and the specific interventions associated with improving levels of social inclusion. Next, **Section 3** contains information

related to the **evaluation design**, defining the theory of change linked to the project, hypotheses, sources of information, and indicators used. **Section 4** describes the implementation of the intervention, the analysis of the sample, the results of random allocation, and the level of participation and attrition in the intervention. This section is followed by **section** ¡Error! No se encuentra el origen de la referencia. where **the results of the evaluation** are presented, along with a detailed analysis of the econometric analysis conducted and the results for each of the indicators used. Finally, the **Conclusions** of the project evaluation are described in **section** ¡Error! No se encuentra el origen de la referencia.. Besides, in the **appendix** ¡Error! No se encuentra el origen de la referencia.**,** additional information is provided on the management tools and governance of the pilot project.

Ethics Committee linked to Social Inclusion Itineraries

During research involving human subjects in the field of biology or the social sciences, researchers and workers associated with the program often face ethical or moral dilemmas in the development of the project or its implementation. For this reason, in many countries it is a common practice to create ethics committees that verify the ethical viability of a project as well as its compliance with current legislation on research involving human beings. The Belmont Report (1979) and its three fundamental ethical principles – respect for individuals, profit and justice – constitute the most common frame of reference in which ethics committees operate, in addition to the corresponding legislation in each country.

With the aim of protecting the rights of participants in the development of social inclusion itineraries and ensuring that their dignity and respect for their autonomy and privacy are guaranteed, Order ISM/208/2022 dated March 10 creates the Ethics Committee linked to the Social Inclusion Itineraries. The Ethics Committee, attached to the General Secretariat of Inclusion and Social Welfare Objectives and Policies, is composed of a president – with an outstanding professional career in defense of ethical values, a social scientific profile of recognized prestige and experience in evaluation processes – and two experts appointed as members.

The Ethics Committee has conducted analysis and advice on the ethical issues that have arisen in the execution, development, and evaluation of the itineraries, formulated proposals in those cases that present conflicts of values and approved the evaluation plans of all the itineraries. In particular, the Ethics Committee issued its approval for the development of this evaluation on October 4th, 2022.

12

[12] While this project has also had the participation of IDOCAL, it was also ruled favorably by the Human Research Ethics Committee of the Experimental Research Ethics Committee of the University of Valencia on May 5, 2022.

2 Description of the program and its context

This section describes the program that Plena Inclusión implemented in the framework of the pilot project. Furthermore, it defines the target population, the territorial scope, and provides a detailed description of the intervention.

2.1 Introduction

This pilot project explores the benefits of using the personalized employment methodology, developed in 2001 by the U.S. Department of Labor, to help people with intellectual and/or developmental disabilities integrate into the labor market and improve their social inclusion and well-being. This study evaluates the effectiveness of this methodology in relation to the traditionally used model of accompaniment, based on itineraries of labor insertion, training and education in socio-labor skills, training itineraries, orientation, and intermediation for employment or employment with support. In addition, this project intends to promote the transfer of knowledge to the process of public policy development.

The project has four main objectives that have to do with improving social inclusion, labor insertion, and the well-being of people with intellectual and/or developmental disabilities, as well as the mechanisms that lead to these changes. The implementation of the personalized employment methodology is associated with the satisfaction of basic needs of autonomy, competence and belonging. This project investigates these effects, as well as the mechanisms that lead to them.

Several reviews and meta-analyses of interventions of the person-based placement and support personalized employment methodology (in which employment and/or mental health care specialists help people with intellectual and/or developmental disabilities obtain competitive employment while providing mental health support) generally find positive results (see, e.g., Wehman et al., 2018). As in the latter case, the control group usually consists of people who are provided with standard employment support that is not personalized.

Thus, for example, Nelson et al. (2015) analyzes the causal effect of autonomous prosocial behavior on well-being, showing a positive relationship between the two. In addition, studies show that improvements in well-being are derived by feelings of autonomy, competence and relatedness, as well as the psychological mechanism (i.e., satisfaction of needs) that explains this effect.

On the other hand, Modini et al. (2016) analyzes whether the *Individual Placement and Support* (IPS) methodology, developed in the United States to improve the employment outcomes of people with severe mental illness, is generalizable to other countries and to different economic conditions. To do so, they conducted a systematic review and meta-analysis of 17 RCTs that compared this methodology with traditional approaches. They show that it was significantly more effective than the traditional methodology in a variety of settings and economic conditions, more than twice as likely to lead to employment and a lasting effect over time. IPS is based on the methodology of supported employment

applied to people with mental illness problems, and is one of the benchmarks of personalized employment, although it cannot be classified as personalized employment.

Personalized employment is also inspired by supported employment by applying strategies that complement and are more effective when people have greater difficulties accessing competitive work.

Another recent meta-evaluation (Weld-Blundell, 2021), reviewed RCT interventions aimed at improving the labor participation of people with psychosocial disabilities, autism, and intellectual disability. There was evidence of a beneficial effect of individual placement and support compared to control conditions in 10/11 of the 26 studies. In any case, they highlight the problem of the lack of availability of high-quality evidence, which does not allow adequate comparability and, therefore, investment decision-making in this type of intervention. They point the need to improve the quality and measurement of such interventions.

The personalized employment methodology was developed in the United States, so most studies refer to this country, while no empirical evidence available for Spain. To improve the assistance that persons with intellectual and/or developmental disabilities receive for entering the labor market, Plena Inclusión conducted several pilots between 2016 and 2019, to explore the feasibility of using and adapting the personalized employment methodology in Spain (Plena Inclusión España, 2018). Different entities and regions participated each year. However, the initiative did not involve a randomized trial, and the number of participants was too small to draw firm conclusions.

2.2 Target population and territorial scope

The target population comprises people with intellectual disabilities, autism spectrum disorder, and cerebral palsy[13].

In particular, the project observes the following requirements in the determination of the participating group:

- **Age** between 21 and 50 years old (both included).
- **Degree of disability** from 33% to 65%.
- **Employment status:** unemployed, employed for less than 20 hours per week and prison work.
- **Reported training** different from short-cycle higher education, bachelor's degree level or equivalent, and master's level or equivalent.

The project was developed by the federations of twelve autonomous communities (Andalusia, Aragon, the Canary Islands, Castilla y León, Catalonia, the Community of Madrid, the Valencian Community, Extremadura, Galicia, La Rioja, the Principality of Asturias, and the Region of Murcia), and the

[13] The original draft mentions different groups, thus including people who are part of families that receive the child benefit, who receive the non-contributory disability benefit or with greater support needs, the population that comes from rural areas, and other situations of intersectionality: migrants, ethnic minorities or sexual identity, among others. It considers these aspects, but not in a specific way. The sample does not represent these situations of intersectionality. In addition, the project had a smaller prison or ex-prisoner population.

autonomous city of Ceuta. A total of 44 entities of the associative movement participated, some of which operated in different cities[14]. Plena Inclusión held initial meetings and was in contact with all entities throughout the implementation of the intervention to achieve a homogeneous implementation.

Section 3.5 provides more details on the recruitment process as part of the evaluation design.

2.3 Description of the intervention

The objective of the project is to evaluate the personalized employment model against the traditional model of support of Plena Inclusión in the labor insertion of people with intellectual disabilities.

The personalized employment methodology focuses on discovering what each person with intellectual and/or developmental disabilities can offer to the labor market and what potential employers need, to shape and negotiate mutually beneficial employment opportunities.

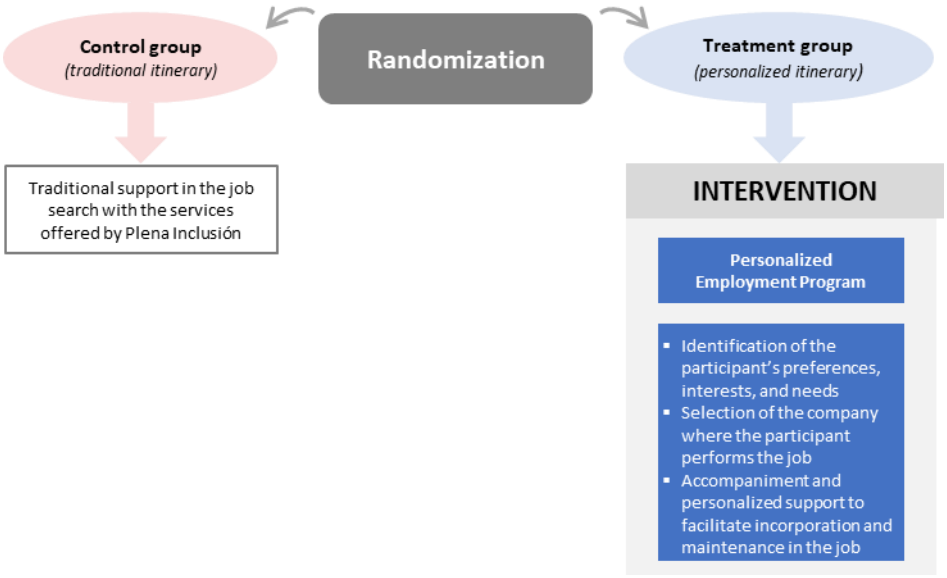
The personalized employment program has four phases, plus a preliminary training of the professionals who implement the program:

- **Discovery phase.** It is a process of listening, knowledge, and deep inquiry about the person and their environment. A person-centered exploration identifies their strengths, preferences, interests, and needs. It involves the person with intellectual disability, his or her family, and other people in his or her closest circle. This process includes creating support circles, conducting visits and interviews with the family, accompanying the person in activities in which he or she successfully participates and visits to companies, to develop a professional profile of the person with intellectual and/or developmental disabilities.
- **Planning phase.** It prepares an employment plan that includes a list of 20 businesses in the area related to each identified vocational area. From this list, companies are chosen to visit. The objective is to expand employment possibilities by learning more about the employer, knowing the jobs and tasks that are performed, and obtaining information about other employers who do similar work. In addition, it proposes actions to enhance the development of vocational areas and inclusion in the environment.
- **Negotiation phase.** Once the company that best matches the talents of the person with intellectual disability has been selected, an offer is made to the company, considering the talents, working conditions, and value that the person with intellectual and/or developmental disability could bring to the company.
- **Support phase.** This phase begins when the person with an intellectual and/or developmental disability finds a job or internship. It consists of creating a support plan to facilitate incorporation and retention in the workplace.

[14] The federations that operated in different cities were those of Castilla y León, Andalusia, Galicia, and Asturias.

Participants in the control group will continue with their usual activities in the Plena Inclusión services.

Figure 2: Intervention scheme



In general, the personalized employment methodology is significantly more intensive than the traditional supported employment methodology. For example, in the latter it is not possible to talk about the discovery phase[15] as such, so that the professional gets to know the person and define his or her professional profile. It is usual to do so through interviews and evaluations. Internships, training, or volunteering can be activities that focus on improving the person's skills and can help redefine that profile. The personalized employment methodology performs discovery activities to determine the best way to support the person with intellectual and/or developmental disabilities, and to ensure their adaptation to the position, based on the person's own talent, their role in the process, the use of social capital and their daily environment. Another difference lies in how job offers are generated. In supported employment, the prospector looks for companies that have openings and tests them to determine their willingness to hire a person with a disability. In the methodology of personalized employment, the professional and the person with intellectual and/or developmental disabilities develop, together with the company, a job that meets the specific ideal conditions for employment. She also conducts informational interviews with companies to get to know the business before offering a customized job position. These interviews serve to broaden the possibilities of employment by learning more about the company, the job, the tasks, the skills needed, and other companies that do similar work.

Plena Inclusion provides several services that can be part of the traditional service itinerary, including: general employment inclusion service, programs with inmates, social exclusion initiatives,

[15] http://www.empleoconapoyo.org/aese/Caja%20de%20Herramientas%20para%20la%20diversidad.pdf

occupational centers, residences, art schools, day centers, special education schools, autonomy flats (promotion of personal autonomy)[16].

3 Evaluation design

This section describes the design of the impact assessment of the projects outlined in the preceding section. The section describes the Theory of Change, which identifies the mechanisms and aspects to measure, the hypotheses to test in the evaluation, the sources of information to build the indicators, the indicators, and the design of the experiment.

3.1 Theory of Change

This report, with the aim of designing an evaluation that enables understanding the causal relationship between the intervention and its final objective, develops a Theory of Change. The Theory of Change makes it possible to schematize the relationship between the needs identified in the target population, the benefits, or services that the intervention provides, and the immediate and medium-long term results sought by the intervention, to understand the relationships between them, the assumptions on which they are based, and to outline measures or outcome indicators.

[16] Although the resource of art schools is indicated, it is only possible to observe an art school that is really an occupational center whose workshops are oriented to the field of art specifically in this project. Likewise, regarding special education educational centers, nobody who is in a special education educational center has participated in this project.

Theory of Change

A Theory of Change begins with the correct identification of the needs or problems to be addressed and their underlying causes. This situational analysis should guide the design of the intervention, i.e., the activities or products that are provided to alleviate or resolve the needs, as well as the processes necessary to properly implement the treatment. Next, we identify the expected effect(s) based on the initial hypothesis, i.e., what changes – in behavior, expectations, or knowledge – are expected to be obtained in the short term with the actions conducted. Finally, the process concludes with the definition of the medium- to long-term results that the intervention aims to achieve. Sometimes, the effects directly obtained with the actions are identified as intermediate results, and one identifies the indirect effects in the results.

The development of a Theory of Change is a fundamental element of impact evaluation. At the design stage, the Theory of Change helps to formulate hypotheses and identify the indicators needed for the measurement of results. Once the results are achieve, the Theory of Change makes it easier, if results are not as expected, to detect which part of the hypothetical causal chain failed, as well as to identify, in case of positive results, the mechanisms through which the program works. Likewise, the identification of the mechanisms that made the expected change possible allows

The theory of change of this project is based on the identification of the low social inclusion and lack of opportunities to access the labor market for people with intellectual disabilities. This conclusion is reached from the analysis of various contextual indicators that make it possible to detect this need: the activity, employment, and unemployment rates of the group of people with intellectual and/or developmental disabilities and those of the population without disabilities; and the average salary of people with intellectual and/or developmental disabilities compared to the general average salary.

To address the comparatively worse situation of persons with disabilities in the labor market, the project proposes a series of actions (inputs or activities) within its environment. These activities constitute the resources and actions required to generate the program's outputs (i.e., for the implementation of the personalized employment methodology). In particular, the training of professionals in the personalized employment methodology; the creation of a context map of each beneficiary, showing their most significant resources and contacts; the design of a specific itinerary for each beneficiary; support through the beneficiary's family and friends; and the search for and reconciliation of the needs of institutions that can be fulfilled and adapted to people with intellectual disabilities. The project collects metrics for each of these inputs or activities: for example, the number of attendees at the training centers and the number of hours invested in training with respect to the first of them, or the number of contacts with the institutions in the environment with respect to the latter.

As a result of the actions described above, a series of products will be obtained. In other words, as a direct result of the programmed activities, there will be more detailed records of the implementation

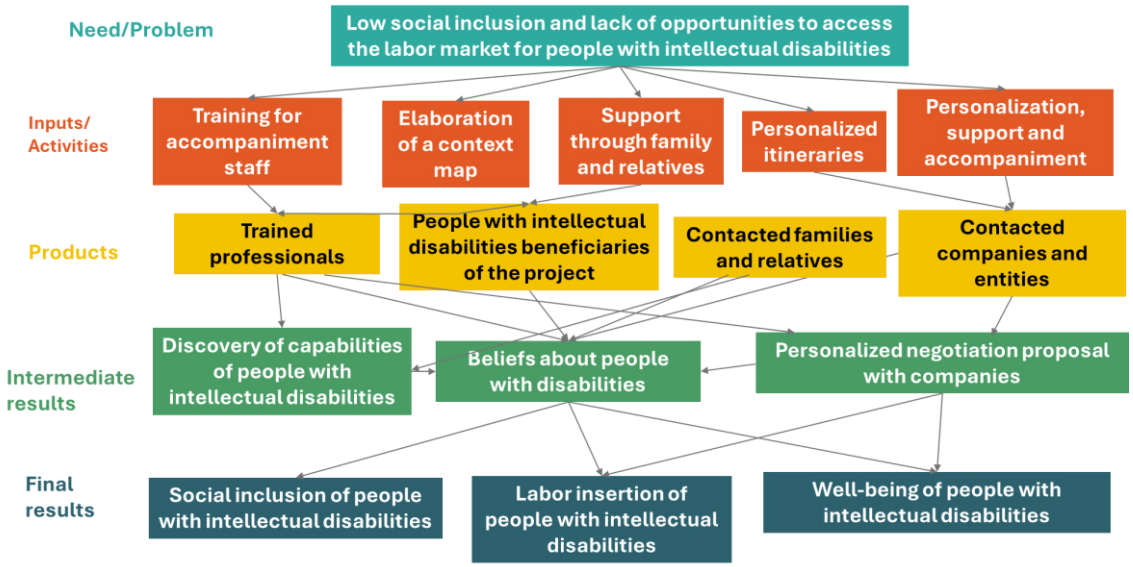
of the methodology: trained professionals, beneficiaries and family members served, and institutions contacted. As with inputs or activities, outputs also have specific quantitative metrics.

The entire development of the project leads to a series of intermediate results (mechanisms or changes that act as precursors) that make it possible to achieve final results. Intermediate results are the discovery of specific capabilities of people with intellectual disabilities; improved access to the labor market for people with intellectual disabilities; and the discovery of the potential of people with disabilities in the specific needs of companies.

In this way, it is expected to obtain final results (final changes to be achieved) in terms of social inclusion, labor insertion (improvement of employability), and well-being of people with intellectual disabilities, achieving their full emancipation.

Figure 3 illustrates this causal sequence of actions, beginning with identified needs or issues, and the necessary activities and resources required to achieve the anticipated changes in participants. To this end, each phase encompasses a series of components that make these changes possible and that are determined by the actions carried out in the previous phase.

Figure 3: Theory of Change of the Personalized Employment Pathway[17]



3.2 Hypotheses

The starting hypothesis of the project is that direct, intensive, and personalized interventions using a customized employment methodology with people with disabilities achieve higher levels of inclusion levels, compared to those receiving traditional treatment.

[17] The presence of families and friends within the products is justified to the extent that there is support through family and close friends of the PWDI.

This report presents below the hypotheses to test for each of the different analysis axes.

1. Increase in employment

The main hypothesis regarding labor outcomes postulates that the personalized employment methodology is more effective than the traditional methodology performed by Plena Inclusión for the insertion of people with intellectual and/or developmental disabilities into the labor market.

2. Improvement in social inclusion

This report tests whether the personalized employment methodology is more effective than the traditional methodology by Plena Inclusión, for the social insertion of people with intellectual and/or developmental disabilities.

3. Improvement in well-being

In relation to the traditional methodology, this study postulates that the personalized employment program is more effective in increasing the level of satisfaction of people with intellectual and/or developmental disabilities.

3.3 Sources of information

To gather the necessary information to construct the outcome indicators, this project conducted specific questionnaires designed ad hoc to target participants the. Up to four types of measurements are collected to record the evolution in the implementation of the methodology, and its influence on the expected results (social inclusion, labor insertion, and well-being).

The survey is available at four different times: one **pre-intervention or baseline** measurement, two **post-intervention or end-line** measurements, and one postponed measurement in the fourth quarter of the project. Two measurements were performed with the aim of observing the impact results on the variables considered at two points in time and understanding the possible effects in the short and medium term. All the questionnaires are answered by people with intellectual and/or developmental disabilities and their family and friends, as well as by the professionals who accomplished the personalized accompaniment. The family member who responds to the questionnaire is the person who accompanies the person with intellectual and/or developmental disabilities in the day-to-day running of the project. This person volunteers and is always the same person in all surveys.

In each survey, the following questionnaires are conducted, classified according to the persons who answers them:

- **People with intellectual and/or developmental disabilities who participate in the itinerary:**
    - **Questionnaire on employment, social inclusion, employability, and well-being**: includes questions related to employment and certain final results in terms of social inclusion, employability, and well-being. When answered by people with intellectual and/or developmental disabilities, these surveys refer to their self-report and self-

perception of well-being, including the degree of agreement or disagreement with certain statements related to self-perception and satisfaction with one's own life.

- **Family member or close friend of the participant in the itinerary:**
  - **Questionnaire on employment, social inclusion, labor insertion, and well-being of the person with intellectual and/or developmental disability:** this questionnaire is designed to be answered by persons with disabilities and their families. It covers topics such as employment, social inclusion outcomes, job placement, and well-being of people with intellectual and/or developmental disabilities. Similar to the previous questionnaire, it includes statements to incorporate the person's perception and satisfaction with their life.
  - **General questionnaire:** it includes descriptive data of the person interviewed (gender, age, level of education, nationality, and relationship with the reference person, etc.), as well as contextual information about the person with intellectual and/or developmental disabilities and their family (degree of dependency, participation in Plena Inclusión employment programs, etc.).
- **Professionals working with the participant on the itinerary:**
  - **General questionnaire on participating persons with intellectual and/or developmental disabilities:** must be answered with the person with intellectual and/or developmental disabilities in mind with whom they are working. It collects information on the different elements of the Theory of Change: inputs (visits, interviews and meetings), outputs (tests and activities, resources, talent, organizations contacted, etc.), results (activities, talents, skills, interests detected, etc.), and final results. It also collects certain assessments of the perception of the reference person and the perception of the satisfaction that he or she has with life. Finally, this report-obtains general sociodemographic information on the person with intellectual and/or developmental disabilities with whom they work.
  - **Questionnaire on training and socio-demographic data:** this set of questions collects information about professionals, including questions related to the training process (with special emphasis on the personalized employment methodology), the effectiveness of implementing the personalized employment methodology, as well as certain socio-demographic data (gender, age, level of education, qualifications, nationality or experience in the intellectual, and developmental disability sector).

In addition to the questionnaires, individualized administrative records are used for the participants, although they are not linked to any of the indicators used to measure the intervention hypotheses. Specifically, these records contain detailed information on the participants' working life.

3.4 Indicators

This section describes the indicators that this study uses to evaluate the impact of the itinerary, divided by themes related to the hypotheses described above. All these indicators come from the information of the questionnaires implemented in the project, additionally for the labor indicators

there is also the information from the administrative sources, so it is possible to formulate them based on that source in these cases.

1. Employment

The project uses several indicators to test the labor market insertion hypothesis.

Binary employment indicator. Indicator equal to 1 if the person with intellectual and/or developmental disability is currently employed and 0 if he or she is not working (regardless of previous work history).

Hours of paid work. Hours worked weekly by the person with intellectual and/or developmental disability in the last month.

Days worked. The actual days worked are measured using two variables. Gross labor intensity, which is the ratio of days worked to days in the period, and full-time employment labor intensity (FTE), which is the ratio of FTE days worked to the total days in the period. The pre-treatment reference period runs from January 1, 2020, to August 31, 2022 (32 months). Three alternative definitions are used for the subsequent period: (a) during treatment, from September 1, 2022, to July 31, 2023, (b) post-treatment, from September 1 to December 31, 2023, and (c) overall, adding the two previous periods. In the latter case, labor intensity is a weighted average of the values during and after treatment, with weights of 11/15 and 4/15, respectively.

Binary job retention indicator. It is measured by a binary variable that takes the value 1 if the person with intellectual and/or developmental disability has an open-ended employment contract and 0 in another case, referring to the last employment contract of the period and only for salaried employees. This project also explores an alternative definition, which includes discontinuous open-ended contracts together with temporary contracts, given that the former present greater instability on the days worked than ordinary open-ended contracts. For the overall period, the variable takes the value 1 if an open-ended contract is observed during or after the treatment period.

Number of contracts. Number of contracts the person with intellectual and/or developmental disabilities has had in the previous 12 months.

Binary indicator of training. Indicator equal to 1 if the person with intellectual and/or developmental disability took any training course in standard settings during the previous 12 months and 0 if he or she did not take any.

Internship indicator. Number of internships and/or collaborations the person with intellectual and/or developmental disabilities did in the previous 12 months.

In the case of information from administrative registries, this project contemplates the following:

Work intensity. The ratio between the days worked and the days of the period[18].

Full-time equivalent work intensity (FTE). The ratio between the FTE days worked and the days of the period.

Job stability. Measured by a binary variable equal to 1 if the person with intellectual and/or developmental disability has an open-ended employment contract and equal to 0 otherwise. It refers to the last employment contract of the period and only for employees[19].

2. Social inclusion

The verification of the hypothesis about social inclusion is based on two indicators.

Social inclusion indicator. To measure the degree of social inclusion, a synthetic indicator is constructed from four variables referring to the last twelve months: the number of new places where the people with intellectual and/or developmental disabilities (PIDD) has participated with the purpose of finding employment, the number of new relationships in the context of a job (people you have met with whom you have contact at least once a month since you have met them), the degree of satisfaction with the social relationships you maintain in your employment activities and whether you have been visible to other people without disabilities intellectual through some type of employment activities. The first two variables are asked only of professionals and the last two of the three groups. The third variable is only asked for PIDD with a working life project and is available for a much smaller number of PIDD. For this reason, the main results shown are based on a synthetic indicator based on the other three variables.

Volunteer activities in the last 12 months. Indicator equal to 1 if the person with intellectual and/or developmental disabilities performed any volunteer service during the previous 12 months and 0 if they did not.

3. Well-being

An indicator is composed of several questions from the questionnaires.

Well-being indicator. To measure the well-being of the PIDD, a synthetic indicator is constructed based on two questions, one about the degree of self-esteem, that is, whether the person has felt valued, and another about satisfaction with their life.

[18] The reference periods are those indicated for the days worked indicator.

[19] An alternative definition is also contemplated, which includes discontinuous open-ended contracts together with temporary contracts, given that the former present a significantly greater instability in the days worked than ordinary indefinite contracts.

3.5 Design of the experiment

To assess the effect of the treatment on each of the previously mentioned indicators, this study uses an experimental evaluation (RCT), in which participants are randomly assigned to either the treatment or the control group. The recruitment and selection process of the beneficiary families for the intervention, as well as the random allocation and the temporal framework of the experiment, are detailed below.

Recruitment of the beneficiaries of the intervention

The original randomized trial design set the goal of reaching a sample size of 502 people, of whom 251 would be randomly assigned to the treatment group and the other 251 to the control group. In addition, the project invites at least one family member or close friend of each person with intellectual and/or developmental disability to participate in the interviews and collaborate in supporting the person with intellectual and/or developmental disability. To obtain the sample of suitable people, the project performs a first filtering according to the variables agreed as necessary for participation in the project:

- **Age.** Between 21 and 50 years old (both included).
- **Degree of disability.** From 33% to 65%.
- **Employment situation.** Unemployed, employed for less than 20 hours per week, and prison work.
- **Reported training.** Different from short-cycle higher education, bachelor's level or equivalent, and master's level or equivalent.

Depending on the project's recruitment process agreements, the first step is the extraction of a first sample of beneficiaries who are contacted by Plena Inclusión. The objective is to ask them for their intention to be part of the project, sign the informed consent form, and respond to a brief questionnaire with sociodemographic and administrative information (degree of disability, if the person receives a pension...). Then, this information is used to perform the randomization to the treatment and control groups.

Those interested in participating sign the informed consent with which they approve their participation in the program. Thus, the signatory group defines the sample of the study.

Informed consent

One of the fundamental ethical principles of research involving human beings (respect for persons) requires study participants to be informed about the research and consent to be included in the study. Informed consent is usually part of the initial interview and has two essential parts: the explanation of the experiment to the subject, and the request and registration of their consent to participate. Consent should begin with a comprehensible presentation of key information that will help the subject make an informed decision, i.e., understand the research, what is expected of it, and the potential risks and benefits. Documentation is required as a record that the process has taken place and as proof of informed consent, if so.

Informed consent is required in most research and may be oral or written, depending on different factors such as the literacy of the population or the risks posed by consent. Only under very specific circumstances, such as when the potential risks to participants are minimal and the informed consent is very complex to obtain or would harms the validity of the experiment, informed consent may be avoided, or partial information may be given to participants with the approval of the ethics committee.

Random assignment of participants

After signing the consent, participants in the experiment are randomly assigned to either the treatment or the control group. Random assignment is the cornerstone of RCTs for identifying a causal relationship between treatment and outcomes. When executed properly, this process ensures that the treatment and control groups are statistically comparable, encompassing both observable and unobservable variables. This homogeneity provides the necessary framework for accurately measuring potential effects resulting from the intervention.

The experimental design does not have a pure control group for ethical reasons: Plena Inclusión entities receive many requests for help and, given the difficult situation faced by people with intellectual disabilities, the entity decided not to deny them assistance. As a result, the control group received the usual accompaniment activities provided by Plena Inclusión, while the treatment group received more personalized services.

Once the set of suitable people who met all the agreed criteria has been obtained, the project estimates the treatment and control groups, considering the gender of each participant and the third sector entity that will be responsible for the intervention in the different geographical areas[20]. Following the initial recruitment efforts, some entities did not have enough candidates due to institutional constraints. Thus, the study softened different criteria, such as the degree of disability (it was extended above 66% of the degree of disability), the level of education (allowing the inclusion of

[20] Plena Inclusión is a confederation that has territorial federations and has also developed specific collaborations with other entities in the same field of action for the development of this project.

people with declared short-cycle higher education training), or age (the age of the participants was extended)[21].

The Ministry of Inclusion, Social Security and Migration conducted the stratified randomization by gender and entity of the study sample, based on data provided by Plena Inclusión. In addition, the project creates a reserve list to make substitutions in case of withdrawals or disinterest in the program.

Table 1: Random allocation results

	Control	Treatment	Total
Andalucía	26	26	52
Aragón	17	17	34
Asturias	22	22	44
Canarias	8	8	16
Cataluña	28	28	56
Ceuta	4	4	8
C. Valenciana	20	20	40
Castilla y León	15	15	30
Extremadura	28	28	56
Galicia	15	15	30
La Rioja	12	12	24
Madrid	43	43	86
Murcia	13	13	26
TOTAL	**251**	**251**	**502**

[21] Limited to 4 people over 50 years of age, 31 people with a degree of disability above 66%, and 5 people with short-cycle higher education, affecting 17 institutions

Figure 4: Sample design

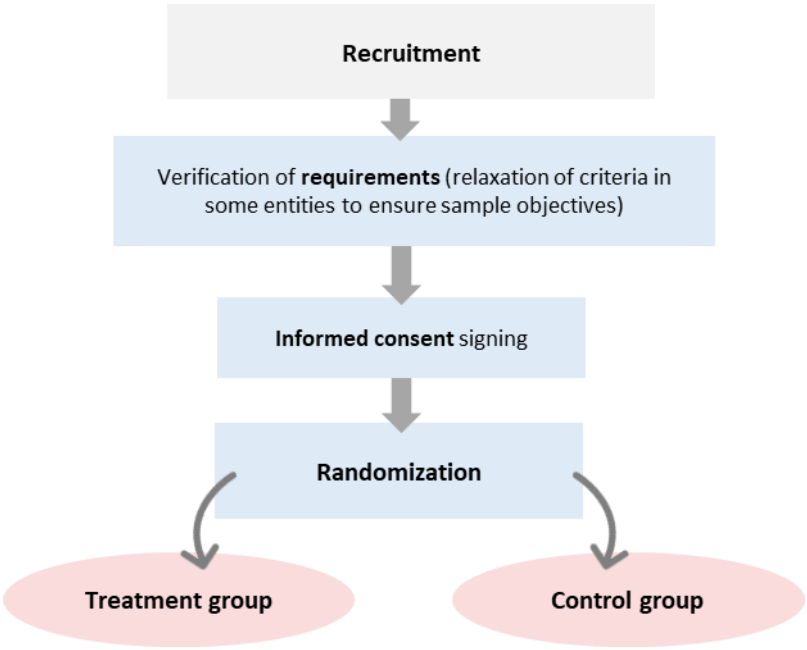
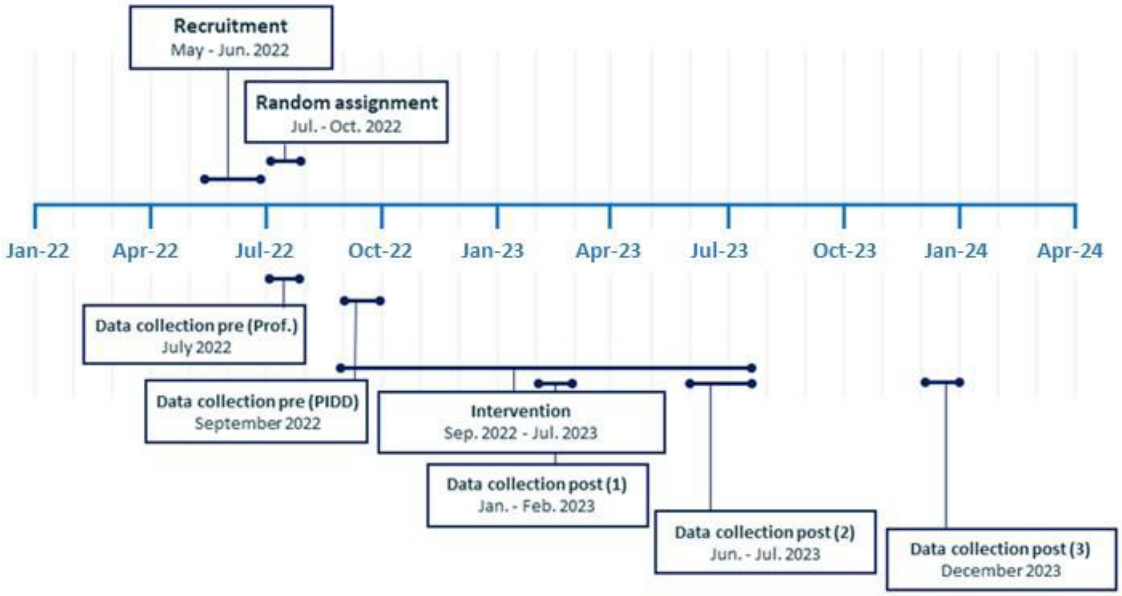


Figure 5 illustrates the timeline for the implementation and evaluation of the itinerary. Once the design of the experimental evaluation is concluded, the process of recruiting participants by Plena Inclusión (in which potential participants are recruited and whether they meet the participation criteria is analyzed) occurs until October 2022. As mentioned above, at the time of recruitment, the informed consent is also signed and the participants who meet the criteria and who are interested in participating are randomly assigned. The project typically conducts the baseline survey at the same time as recruitment or at the first subsequent contacts. The development of the itinerary occurs later and covers a large part of the project period. Finally, the study schedules several post- surveys.

Regarding the time sequence, the training of professionals occurs in July 2022, the pre-intervention survey was collected in September and October 2022, and the intervention began in mid-September 2022, lasting eleven months. An interim survey was collected in January and February 2023, and the final survey took place in June and July 2023. Additionally, a more medium-term measurement was conducted in December 2023.

Figure 5: Evaluation timeline



4 Description of the implementation of the intervention

This section describes the practical aspects of how the intervention was implemented as part of the evaluation design. It describes the results of the participant recruitment process and other relevant logistical aspects to contextualize the results of the evaluation.

4.1 Sample description

The original design of the randomized trial aimed to achieve a sample size of 502 persons, with 251 randomly assigned to the treatment group and the remaining 251 to the control group. In addition, at least one family member of each person with intellectual and/or developmental disabilities was invited to participate in the interviews and collaborate in supporting the interviews. Eligibility criteria for study inclusion were age between 21 and 50 years, degree of disability between 33% and 65%, not having a higher education degree or being enrolled in it and being unemployed or working less than 20 hours per week. However, due to an insufficient initial sample size, some entities included people over 50 years of age, raised the maximum degree of disability, and included people with short-cycle higher education, as indicated above.

The project assigns a set of professionals to provide support to participants in the treatment group (72) and a different set of professionals to participants in the control group (62). The former received

specific training in the methodology of personalized employment and had to pass an exam in this regard.

From the set of potential beneficiaries (2,696), the project obtains a sample with the group of people with intellectual and/or developmental disabilities who met the criteria indicated above (1,667). Then, it estimates a size for each stratum of locality and gender that would guarantee a percentage of men and women equal to that of the initial sample, and with capacity restrictions in each of the localities. Note that the term "locality" denotes combinations of location and entity, since the implementation of the personalized employment methodology may be slightly different between them.

From the sample of 1,667 persons with intellectual and/or developmental disabilities, the study randomly selects participants (506) from each locality stratum[22]. Finally, 1,161 persons with intellectual and/or developmental disabilities (the complement up to 1,667) formed the group of potential reserves. From this group, the project extracted (with the same criteria) new participants to replace those who abandoned the intervention in the first weeks. In this process, the number of people who completed the initial survey was eventually raised to 512, to reach the target figure of 502 people with intellectual and/or developmental disabilities.

Characteristics of the final evaluation sample

Given that the intervention was focused on the labor integration of people with intellectual and/or developmental disabilities, the analysis focused on the subsample of unemployed people, which allows to identify the effect on the population of interest. In this sense, as will be indicated later, the descriptive statistics of the complete sample of 512 persons with intellectual and/or developmental disabilities present evidence of unbalanced variables. This also supports the decision to focus the analysis on the group of people with intellectual and/or developmental disabilities without previous employment.

Therefore, the sample presented in the following sections consists of 435 persons and not 512. The study decided to analyze the effects of the intervention exclusively for the group of people with intellectual and/or developmental disabilities who are unemployed (435), representing 85% of the initial sample. Therefore, all the results presented in this report are only relevant to this population group. Additionally, the sample of people with intellectual and/or developmental disabilities initially employed is much smaller, with 75 observations (only 26 in the treatment group and 49 in the control group). There are 42 localities with at least one person with intellectual and/or developmental disabilities in the treatment group and one in the control group, from which the project estimates the effect of the treatment. Therefore, performing the estimation with this subgroup is discarded.

[22] In 13 entities, the project had to make an additional adjustment because the number of participants of a given gender was less than the size of the stratum.

Table 2 presents the descriptive statistics for the final sample of analysis, i.e., people with intellectual and/or developmental disabilities initially unemployed[23]. Thus, the analysis sample consists of 435 people, 232 assigned to the treatment group and 203 to the control group. **Table 2** displays the variables related to the evaluation in the pre-intervention survey (baseline). It shows the number of observations, mean, standard deviation, minimum, and maximum of each variable. The first panel includes the socio-demographic characteristics of the people with intellectual and/or developmental disabilities. The second panel includes the result indicators analyzed. And the third panel includes some of the variables used to construct the indicators of social inclusion and well-being whose information is provided by each of the groups involved in the intervention (i.e. the person with intellectual and/or developmental disabilities, his family, and the professional, although referring to it). For example, self-esteem indicators refer in all cases to the self-esteem of the person with intellectual disability and/or developmental and shows in parentheses who the informant is.

The project randomly assigns 53% (232) of the 435 people with intellectual and/or developmental disabilities to the treatment group, and 47% (203) to the control group. 43% of these people are women and the median age was 32 years. The level of education is low, being higher than primary education in only 32% of cases. 92% were born in Spain and 97% had Spanish nationality. The average degree of disability was high, at 54%, ranging from 33% to 78%, and greater than 65% in 51% of cases (the **Hypotheses** section explains why this threshold is used). 48% had officially recognized dependency and 58% received a pension, although only in 10% of cases was this higher than the Public Indicator of Income of Multiple Effects (in Spanish, IPREM), then located at €8,106 per year (in 14 payments).

60% of people stated that they have a work life project, defined by Plena Inclusión 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. In the 12 months prior to the survey, the average number of contracts was 0.21, ranging from zero to two, 29% had completed training in ordinary contexts, and 42% had completed internships.

For 426 of these 435 people with intellectual and/or developmental disabilities, the Social Security keeps their administrative records. The table shows several indicators of job outcomes. First, it presents work intensity, which is the ratio between days worked and days in the period, and full-time equivalent work intensity (FTE), which is the ratio between FTE worked and days in the period. The reference period runs from 1 January 2020 to 31 August 2022 (32 months). Second, job stability, measured by a binary variable equal to 1 if the person with intellectual and/or developmental disability has an open-ended employment contract and equal to 0 in another case. It refers to the last employment contract of the period and is only for employees. It also shows an alternative definition, which includes discontinuous open-ended contracts together with temporary contracts, given that the former present a significantly greater instability in the days worked than ordinary open-ended contracts. Finally, it also includes the proportion of employees with part-time contracts, whether

[23] **Table 8** in the Appendix shows descriptive statistics for the full sample.

permanent or temporary. It should be noted that the variables of job stability and part-time work are only observed for 134 people with intellectual and/or developmental disabilities.

The table shows that people with intellectual and/or developmental disabilities only work 8% of the period, which drops to 6% when work intensity is measured in FTE. Their job stability is also very low, with only 16% of people with intellectual and/or developmental disabilities having an open-ended contract and 13% having a non-discontinuous open-ended contract. Finally, its part-time job is very high, reaching 63%.

These figures indicate a weak link to the labor market and highlight the need for these people to be supported in their job search.

Table 2: Descriptive statistics of the sample

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Treatment	435	0.53	0.50	0	1
Sociodemographic indicators					
Female	435	0.43	0.50	0	1
Age	435	31.66	8.02	20	52
Education higher than Primary	435	0.32	0.47	0	1
Disability	426	54.11	13.45	33	78
Disability over 65%	435	0.52	0.50	0	1
Born in Spain	435	0.92	0.27	0	1
Spanish nationality	435	0.97	0.18	0	1
Number of employments last 12 months	424	0.27	0.59	0	5
Disability recognized	433	0.48	0.50	0	1
Receives pension	424	0.58	0.49	0	1
Receives pension greater than IPREM	424	0.10	0.30	0	1
Work life project (PIDD)	433	0.60	0.49	0	1
Work life project (familiar)	432	0.61	0.49	0	1
Work life project (professional)	435	0.58	0.49	0	1
Outcome indicators					
Contracts	435	0.21	0.46	0	2
Training	435	0.29	0.46	0	1
Internship	435	0.42	0.71	0	5
Social inclusion [a]	431	0.00	1.00	-1.30	6.66
Volunteering	435	0.09	0.29	0	1
Well-being [a]	220	0.00	1.00	-2.65	2.57
Labor intensity	426	0.08	0.19	0	1
Labor intensity FTE	426	0.06	0.15	0	1

Labor stability	134	0.16	0.37	0	1
Labor stability (definition 2)	134	0.13	0.33	0	1
Part-time contract	134	0.63	0.49	0	1
Indicators by collectives					
New places (professional)	435	0.40	0.82	0	8
New relations (professional)	435	0.67	1.95	0	15
Satisfaction with relations (professional)	435	5.33	2.73	1	10
Satisfaction with relations (PIDD)	87	7.59	2.29	1	10
Satisfaction with relations (familiar)	85	7.11	2.59	1	10
Visibility (professional)	435	4.97	2.98	1	10
Visibility (PIDD)	433	5.40	3.35	1	10
Visibility (familiar)	432	5.43	3.14	1	10
Self-esteem (professional)	253	7.46	1.89	1	10
Self-esteem (PIDD)	261	8.19	2.10	1	10
Self-esteem (familiar)	262	7.32	2.39	1	10
Satisfaction (professional)	253	7.68	1.88	1	10
Satisfaction (PIDD)	261	8.25	1.96	1	10
Satisfaction (familiar)	262	7.69	2.24	1	10

Note: persons with intellectual and/or developmental disabilities initially unemployed. All variables are measured before the start of treatment. Indicators of social inclusion and well-being are constructed according to Anderson's (2008) method.

The study constructs the degree of social inclusion using a synthetic indicator based on four variables that refer to the last twelve months, as indicated in the **indicators** section. One of the variables is only asked to the people with intellectual and/or developmental disabilities with a work-life project (having a plan with actions for employment) and is available for a much lower number of people with intellectual and/or developmental disabilities. For this reason, the main results shown are based on a synthetic indicator based on the other three variables, which is the one that appears in **Table 2**. These indicators are normalized to have zero mean and unit variance. A second variable of social inclusion is having participated in volunteer activities in the last twelve months, which only 9% had done.

Table 2 shows the mean values of 0.40 new places and 0.67 new relationships, as well as a high level of satisfaction with the social relationships maintained by the person with intellectual and/or developmental disabilities (a 7.6 out of 10 for the person with intellectual disability, although the average according to professionals is 5.3), and an average level of visibility (5.4 out of 10 for the person with intellectual disability).

Finally, to measure the well-being of persons with intellectual and/or developmental disabilities, the study conducts questions assessing self-esteem, specifically whether they feel valued, and their satisfaction with life. **Table 2** shows a high degree of self-esteem and satisfaction (8.2 and 8.3, respectively), although somewhat less in the opinion of professionals and family members. **Table 2** also presents the value of a synthetic indicator of well-being constructed from these two variables, which has been explained in **section 3.4.**

4.2 Random assignment results

Once the sample is defined, the project randomly assigns participants to either the treatment or the control group, as explained in **Section 3.5**, and it conducts a balance test to ensure that, on average, the observable characteristics of the participants in both groups are equal. Balance between experimental groups is crucial for estimating the causal effect of the program by comparing their outcomes.

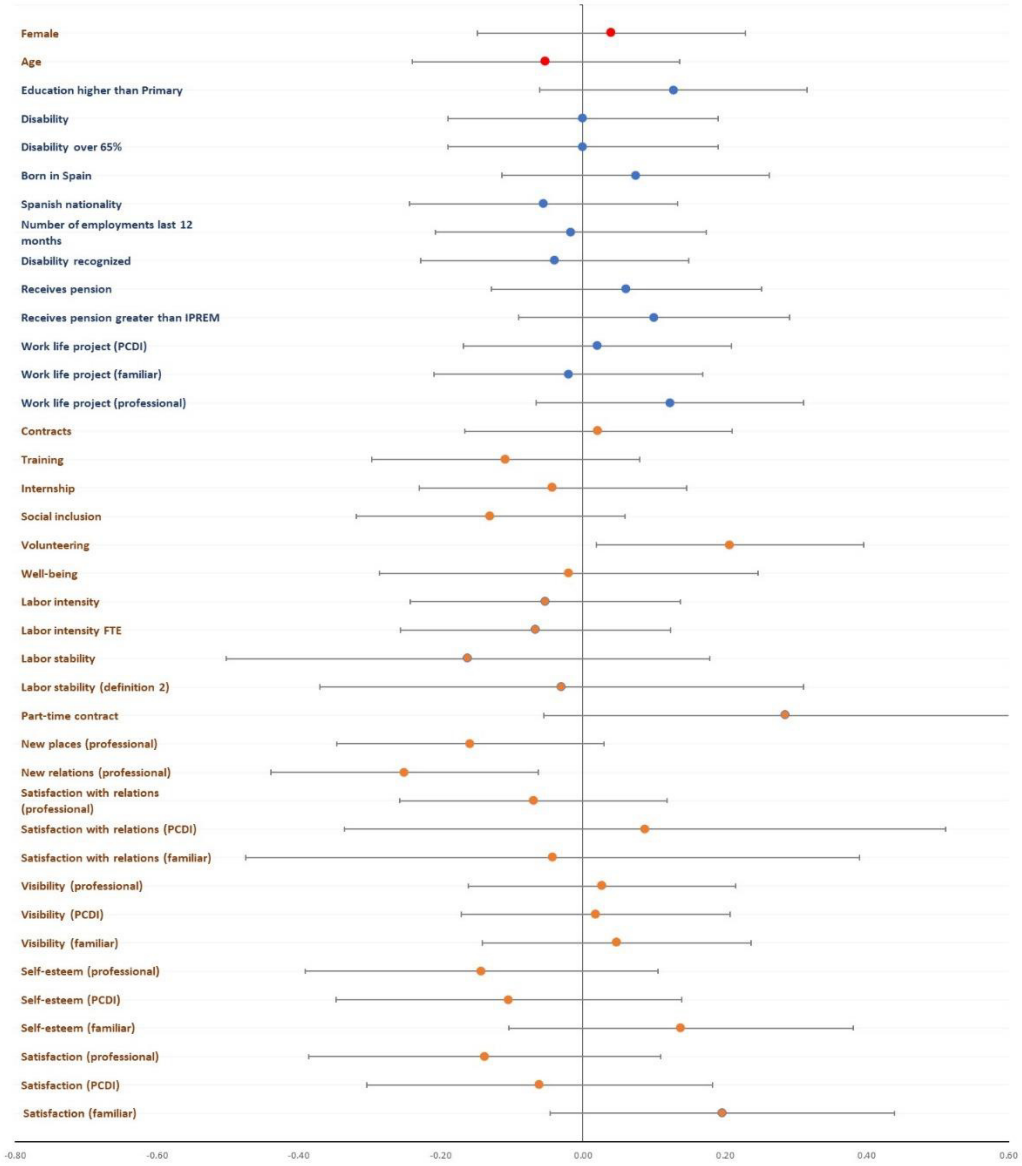
The full sample consists of 512 people with intellectual disabilities, of which 259 are in the treatment group and 253 in the control group. **Table 8** and **Table 10** in the appendix present these results. As noted above, there is a 10-percentage point lower proportion of persons with intellectual and/or developmental disabilities in employment the treatment group than in the control group. There are also significant differences between the two groups in working hours, level of social inclusion, and participation in volunteering. Therefore, randomization worked well for sociodemographic characteristics, but not for the employment status of persons with intellectual disabilities. Therefore, this study conducts the evaluation of persons with intellectual and/or developmental disabilities who are not employed.

Figure 6 shows the results of the balance test between the control group and the treatment group[24]. All data presented in this figure refer to the survey conducted prior to the intervention (baseline). For each observable variable, the difference between the mean of that variable in the treatment and control group is represented by a dot and focused on it, the 95%[25] confidence interval of that difference. A confidence interval containing zero, i.e., the vertical axis, will indicate that the mean difference between groups is not statistically significant or, in other words, is not statistically different from zero, meaning that the intervention groups are balanced. In case the confidence interval of the mean difference does not contain zero, the difference is statistically significant meaning the groups are unbalanced in this characteristic.

[24] See **Table 9** in the Appendix for the details of the results of the balance tests.

[25] In the 95% interval, only volunteering and new relationships appear as significant, the rest of those indicated as significant are at 90%.

Figure 6: Difference between standardized means between treatment and control group (confidence interval at 95%)[26]



Note: in red, the variables used for sample stratification; in blue, the remaining sociodemographic variables, and in orange, the specific indicators used for project evaluation; and in orange, the outcome indicators and some of the variables used to construct the indicators of social inclusion and well-being (always referring to persons with intellectual disabilities).

Figure 6 shows that all sociodemographic variables are balanced between groups. There are only four variables that show significant differences: participation in volunteer activities, which is 6 percentage points higher in the treatment group; the partiality rate, which is 14 points higher in the treatment

[26] For more precise information, consult the tables in the Appendix

group; and two components of the social inclusion indicator, the number of new places and new relationships.

4.3 Degree of participation and attrition by groups

First, it should be noted that there were no cases of non-compliance with the design, i.e., persons with intellectual and/or developmental disabilities that participated in a different group than the one assigned, and the sample attrition rate is very low. The initial sample of unemployed consisted of 435 people with intellectual disabilities. Of those, there are 12 people who did not respond to the final survey, of which 9 only responded to the initial survey and 3 also responded to the intermediate survey[27]. All persons with intellectual and/or developmental disabilities who completed treatment responded to the final survey. Finally, there are 2 people who in the initial survey appear without a contract but with positive working hours (1 and 12 hours). It has been decided to keep these two ppeople in the sample, accepting the contract variable as good and setting the hours to zero[28]. Therefore, the final sample refers to 423 persons with intellectual disabilities. **Table 3** exhibits that the low overall attrition rate of 2.8% is 2.4 percentage points higher in the treatment group than in the control group. This difference could be because the personalized employment methodology requires a more intense involvement of the person with intellectual and/or developmental disabilities and his or her family.

Table 3: Sample attrition by experimental group[29]

Group	Assigned	Baseline survey	Endline survey
Control	203	202	200
	100%	99,5%	98,5%
Treatment	232	230	223
	100%	99,1%	96,1%
Observations	**435**	**432**	**423**

Note: persons with intellectual and/or developmental disabilities initially unemployed

The regression of a binary variable of attrition on the treatment, including fixed effects of locality and grouping the standard errors at that level, indicates 1.9 percentage points more attrition among the treated, but the coefficient is not significant (p-value equal to 0.11). Due to this result and the low attrition rate, the study does not consider it necessary to analyze possible biases between intervention groups.

[27] In the total sample, including unemployed and employed IDWPs, there were 14 IDWPs (10 in the treatment group and 4 in the control group) who did not respond to the final survey.

[28] The alternative procedure in which these two people are excluded from the sample yields estimated treatment effects very similar to those presented here.

[29] The concept of attrition is the percentage that does not complete the project, so it would be the inverse of the people who are indicated to finish the project (100% - percentage that completes it)

5 Results of the evaluation

The random assignment of the experimental sample to the control and treatment groups ensures that, with a sufficiently large sample, the groups are statistically comparable, and therefore any difference observed after the intervention can be causally associated with the treatment. Econometric analysis essentially provides this comparison. However, it has the advantages of allowing the inclusion of other variables to gain precision in the estimates and of providing confidence intervals for the estimates. This section presents the econometric analysis conducted, the estimated regressions, and the analysis of the results obtained.

5.1 Description of the econometric analysis: estimated regressions

The regression model specified to estimate the causal effect in a randomized experiment is typically just the difference in the variable of interest between the treatment group and the control group, since these groups are statistically comparable thanks to randomization. However, **Figure 6** presents significant imbalances in three variables: participation in volunteering activities and two components of the social inclusion indicator, the numbers of new places and new relationships, although this indicator does not show significant differences between the two groups. Therefore, the main empirical specification only includes the pre-treatment volunteering indicator as a control variable, in order to account for the differences between the pre-intervention treatment and control groups. This ensures that the analysis considers differences between the pre-intervention treatment and control groups and increases the accuracy of the estimates. On the other hand, the estimation does not include the incidence of part-time work as a control variable since this information is only available for those who had a contract during the intervention period.

Specifically, the specification of the regressions presented below is as follows:

$$Y_i = \alpha + \beta T_i + \delta V_i + \mu X_i + \varepsilon_i$$

where Y_i is the dependent variable of interest observed after the intervention for person *i*, T_i indicates whether the person has been assigned to the treatment group (equal to 1) or control group (equal to 0), V_i is a binary variable that captures whether the person with intellectual and/or developmental disability participated in volunteering activities prior to the intervention (equal to 1) or not (equal to 0), X_i is a vector of binary variables (0 or 1) for each locality where the intervention was conducted (58 locations), and ε_i is the error term. The inclusion of locality fixed effects is because it is the randomization stratum. Standard errors are always grouped at the locality level.

After investigating the effects of treatment for persons with intellectual and/or developmental disabilities initially stopped, the study performs three heterogeneity analyses, estimating the following specification:

$$Y_i = \alpha + \beta T_i + \gamma W_i T_i + \eta W_i + \delta V_i + \mu X_i + \varepsilon_i$$

where W_i denotes indicators for groups in which treatment might have a different impact. The project conducts three separate regressions: in the first one, W_i indicates gender (0 if the person with intellectual and/or developmental disabilities is a man and 1 if he or she is a woman); in the second, it is equal to 1 if the degree of disability exceeds 65% and 0 otherwise; and in the third, it is equal to 1 if the person has his or her disability officially recognized and 0 if it is not.

Gender is considered a dimension of interest per se. The degree of disability is calculated based on the intensity of support that the person requires for self-care, communication, physical, functional, social, and leisure activities. The Spanish government determines the scales to be applied in the valuation, which are implemented by the regional governments.

The degree of disability affects the type of benefits and aids or services to which persons with intellectual disabilities are entitled. A person with a disability is one who has a recognized degree equal to or greater than 33%. Below 65%, tax and economic benefits can be obtained, but not economic benefits, which require exceeding this threshold. Finally, the degree of disability may lower the likelihood of employment, which may increase with the degree of disability. For these reasons, the possible heterogeneous effect of the treatment is contrasted depending on whether the degree of disability is greater than 65%.

Finally, the official recognition of dependency entails the right to some social and economic benefits that are incompatible with having a full-time job, which could reduce the effect of the treatment on work-related variables. This might justify an investigation into the possible heterogeneous effect of the treatment for these persons.

5.2 Analysis of the results

5.2.1 Main and secondary outcomes

This section presents the results of the hypotheses tested. Measures of employment, training, and volunteering are binary variables that indicate the presence (equal to 1) or absence (equal to 0) of the variable in question. Hours, numbers of contracts, and internships are measured in their natural units. Finally, indicators of social inclusion and well-being are standardized to have mean zero and unit standard deviation. The measurement of the regression coefficients in standard deviations facilitates comparisons of effect sizes across different contexts.

Due to the limited number of observations in the analysis sample of initially unemployed persons with intellectual and/or developmental disabilities, a significance level of 10% is used as the threshold to interpret a coefficient as statistically significant. Additionally, the tables present the mean values of the variables for the control group to provide context for assessing the magnitude of the treatment effect.

Employment

Table 4 shows the results of the intervention on the five labor variables: employment, paid hours worked, number of contracts, training, and internships. For each variable, it presents two

specifications: panel A yields the estimate when only the binary locality variables are included as controls, and panel B when the previous volunteering variable is added. The results without including any control variables are very similar.

Since there is only one additional control variable, the results are very similar on both panels. Focusing on panel B, the employment coefficient is equal to 6 percentage points, but there is no significant effect of treatment. This leads to increases of 2.3 hours worked (73% compared to the control group), 0.14 employment contracts (45%), and 13 percentage points (38%) in the proportion of persons with intellectual and/or developmental disabilities who participate in training activities. Therefore, increases in hours and contracts indicate a clear positive effect of very high proportional magnitude on the employment intensity of persons with intellectual disabilities.

It may seem inconsistent that, even though there is no significant effect on employment at the end of the treatment, there is an effect on hours and contracts. However, this result could be because of the high rate of temporary employment observed, of 84%, or 87% if permanent discontinuous workers are excluded from permanent contracts. Specifically, persons with intellectual and/or developmental disabilities could have lost their jobs before the end of the period, because of the instability associated with these contracts. This hypothesis is tested below, in **Table 5**, with administrative data. Finally, no significant effect was found on the performance of unpaid internships or collaborations.

Table 4: Effects on employment

	Employment	Hours	Contracts	Training	Internship
	(1)	(2)	(3)	(4)	(5)
A. Locality controls					
Treatment	0.06	2.37**	0.14**	0.14**	0.19
	(0.04)	(0.95)	(0.07)	(0.07)	(0.24)
B. Additional controls					
Treatment	0.06	2.27**	0.14**	0.13**	0.13
	(0.04)	(0.99)	(0.07)	(0.07)	(0.28)
Observations	423	423	423	423	423
Dependent control variable mean	0.17	3.12	0.31	0.34	0.54

Note: persons with intellectual and/or developmental disabilities initially unemployed. Panel A includes binary variables of locality and panel B adds the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * $p < 0.1$, ** $p < 0.05$ and *** $p < 0.01$.

The results on job intensity and stability, presented in **Table 5**, go in the same direction as the absence of an effect on employment at the end of treatment shown in **Table 4**. There is no significant effect on labor intensity, regardless of the period considered, whether measured on a gross basis or FTE. Therefore, these results do not allow to solve the lack of consistency with the positive effect on hours worked indicated by the surveys, which is explored later in the heterogeneity analysis. Nor is there a significant effect on job stability, a variable for which there are far fewer observations, regardless of the definition used.

Table 5: Effects on employment (administrative sources)

	Labor intensity (During)	Labor intensity (After)	Labor intensity (Overall)	Labor intensity FTE (During)	Labor intensity FTE (After)	Labor intensity FTE (Overall)
	(1)	(2)	(3)	(4)	(5)	(6)
A. Locality controls						
Treatment	-0.01	0.02	0.00	-0.01	0.01	-0.00
	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.02)
B. Additional controls						
Treatment	-0.00	0.02	0.00	-0.01	0.01	-0.00
	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.02)
Observations	423	423	423	423	423	423
Dependent control variable mean	0.13	0.17	0.14	0.09	0.11	0.10
	Stability (During)	Stability (After)	Stability (Overall)	Stability (alt.) (During)	Stability (alt.) (After)	Stability (alt.) (Overall)
	(7)	(8)	(9)	(10)	(11)	(12)
A. Locality controls						
Treatment	-0.03	0.03	0.02	0.02	0.05	0.04
	(0.10)	(0.11)	(0.07)	(0.09)	(0.09)	(0.07)
B. Additional controls						
Treatment	-0.03	0.03	0.03	0.02	0.05	0.05
	(0.10)	(0.11)	(0.07)	(0.09)	(0.10)	(0.07)
Observations	138	119	169	138	119	169
Dependent control variable mean	0.37	0.43	0.36	0.25	0.31	0.24

Note: persons with intellectual and/or developmental disabilities initially unemployed. Panel A includes binary variables of locality and panel B adds the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * $p < 0.1$, ** $p < 0.05$ and *** $p < 0.01$.

Social inclusion and well-being

Table 6 presents the effects of treatment on social inclusion, volunteering, and well-being. Again, focusing on panel B, the treatment increases the social inclusion indicator by 0.94 standard deviations, and volunteer activities, in 19 percentage points, i.e., it doubles with respect to the control group. In the case of the well-being indicator, there is a positive effect of 0.36 standard deviations. Summarizing, it can be concluded that treatment increases social inclusion, voluntary activities, and the well-being of persons with intellectual and/or developmental disabilities in very high magnitudes.

Table 6: Effects on social inclusion and well-being

	Inclusion	Volunteering	Well-being
	(1)	(2)	(3)
A. Locality controls			
Treatment	0.95***	0.20***	0.38***
	(0.13)	(0.04)	(0.12)
B. Additional controls			
Treatment	0.94***	0.19***	0.36***
	(0.13)	(0.03)	(0.13)
Observations	418	423	418
Dependent control variable mean	-0.48	0.09	-0.19

Note: persons with intellectual and/or developmental disabilities initially unemployed. Panel A includes binary variables of locality and panel B adds the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * $p < 0.1$, ** $p < 0.05$ and *** $p < 0.01$.

Source: Authors' own creation

The results on the social inclusion of **Table 6** are based on a measure that excludes one of the four components proposed, related to satisfaction with relationships in the workplace, due to the lower number of observations, as indicated in the section on the description of indicators (**3.4**).

5.2.2 Heterogeneity analysis

This section discusses the analysis of heterogeneity of treatment effects for some groups of participants. Specifically, it analyzes whether the effects are different by gender, degree of disability, or recognized dependency. To do this, the study estimates regressions with the same controls as in the previous section, adding in each case as a control variable the one for which the possible heterogeneous effects and their interaction with the treatment are to be estimated.

Employment

Table 7 shows that the treatment does not have different effects on the variables of employment, hours, and number of contracts by gender and degree of disability (panels A and B). Interactions are generally positive, but not significant. However, the effect of the treatment itself is no longer significant. The results of **Table 7** suggest, therefore, that the possible difference in the effect of treatment between women and men, and between persons with intellectual and/or developmental disabilities with varying degrees of disability cannot be accurately estimated.

In the case of training and internships, the same is true as for the first three employment variables, although there are more positive effects of treatment for persons with intellectual and/or developmental disabilities with a higher degree of disability, of 23 percentage points (100% of the initial value) and 47 (134% of the initial value).

Panel C of **Table 7** reveals that the treatment does not have a heterogeneous effect on the persons with intellectual and/or developmental disabilities with recognized dependency, except in two cases.

On the one hand, it has a negative effect on their working hours, which completely cancels the impact of the treatment on this group, which is effective only for women. Persons with intellectual and/or developmental disabilities who do not have the recognized dependency equal to 4.35 hours. On the other hand, the treatment induces an increase in the participation of this group in internships by 36 percentage points (78%).

Table 7: Heterogeneous effects on employment by gender, degree of disability and dependency

	Employment	Hours	Contracts	Training	Internship
	(1)	(2)	(3)	(4)	(5)
A. By gender					
Treatment	0.06	1.57	0.07	0.07	-0.01
	(0.05)	(1.24)	(0.09)	(0.08)	(0.38)
Treatment x Female	0.00	1.63	0.15	0.14	0.33
	(0.08)	(1.99)	(0.14)	(0.09)	(0.28)
Female	0.03	-0.27	0.01	-0.02	-0.15
	(0.06)	(1.30)	(0.09)	(0.08)	(0.25)
Observations	423	423	423	423	423
Dependent control variable mean	0.17	3.12	0.31	0.34	0.54
B. By degree of disability					
Treatment	0.02	2.56	0.07	0.04	-0.20
	(0.07)	(1.71)	(0.13)	(0.09)	(0.40)
Treatment x (Disability over 65%)	0.08	-0.55	0.13	0.19*	0.67**
	(0.10)	(2.27)	(0.16)	(0.11)	(0.28)
Disability over 65%	-0.23***	-3.91**	-0.30***	-0.23***	-0.49
	(0.06)	(1.64)	(0.11)	(0.08)	(0.39)
Observations	423	423	423	423	423
Dependent control variable mean	0.17	3.12	0.31	0.34	0.54
C. By disability recognized					
Treatment	0.12*	4.35***	0.27*	0.12	-0.08
	(0.06)	(1.27)	(0.14)	(0.08)	(0.31)
Treatment x (Disability recognized)	-0.12	-4.38***	-0.28	0.04	0.44**
	(0.08)	(1.61)	(0.17)	(0.13)	(0.22)
Disability recognized	-0.00	2.05	-0.08	-0.14*	-0.58*
	(0.06)	(1.53)	(0,12)	(0.08)	(0.31)
Observations	422	422	422	422	422
Dependent control variable mean	0.18	3.13	0,31	0.34	0,54

Note: persons with intellectual and/or developmental disabilities initially unemployed. All regressions include binary variables of locality and the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * p < 0.1, ** p < 0.05 and *** p < 0.01.

Table 11 in the **Appendix** shows the same heterogeneity analyses for work intensity. As was already the case in **Table 7**, there is no gender heterogeneity in the effects on these two variables. On the other hand, there is an increase in the FTE labor intensity, although not in the gross labor intensity, for the persons with intellectual and/or developmental disabilities with a degree of disability greater than 65% of 3.8 percentage points (102%) during treatment. This effect remains at a similar value in the combined period, equal to 3.7 percentage points (98%). It should be recalled that this group represents 51% of the sample of people with intellectual and/or developmental disabilities initially unemployed.

There is also a negative effect of treatment on work intensity for persons with intellectual and/or developmental disabilities with recognized dependency. In gross intensity, the effect is -4.2 percentage points (59%) during treatment and -5.2 (73%) in the post-treatment period, while in FTE intensity the effect is -4.3 percentage points (77%) during treatment and -5.9 (107%) in the post-treatment period. In contrast, for persons with intellectual and/or developmental disabilities without recognized dependency, who account for 52% of the sample, the treatment increased gross work intensity by 9 percentage points (93%) and CTE intensity by 7.8 (126%) in the subsequent period, although not during the intervention.

The significant effects present in this table are consistent with those shown in the previous table for employment and the number of contracts, although they are not statistically significant, except for the positive effect on employment of persons with intellectual and/or developmental disabilities without recognized dependency. On the other hand, the greater proportional effect on FTE work intensity than on gross intensity in persons with intellectual and/or developmental disabilities without recognized disability is also consistent with the positive effect on hours in the table above, while the similar effect on both definitions of work intensity in those with recognized dependency is consistent with the absence of an effect on hours worked by this person collective.

Finally, **Table 12** in the Appendix does not show any heterogeneous effect on job stability, regardless of the definition used.

Social inclusion and well-being

There is no heterogeneous impact for any indicator or group[30]. It is worth mentioning that persons with intellectual and/or developmental disabilities with a degree of disability greater than 65% have a level of social inclusion 0.35 standard deviations lower than the rest, but the treatment effect of 0.78 standard deviations leads to a net positive result.

[30] The results of the heterogeneity analysis for the indicators of social inclusion, volunteering and well-being are presented in **¡Error! No se encuentra el origen de la referencia.** of the Appendix.

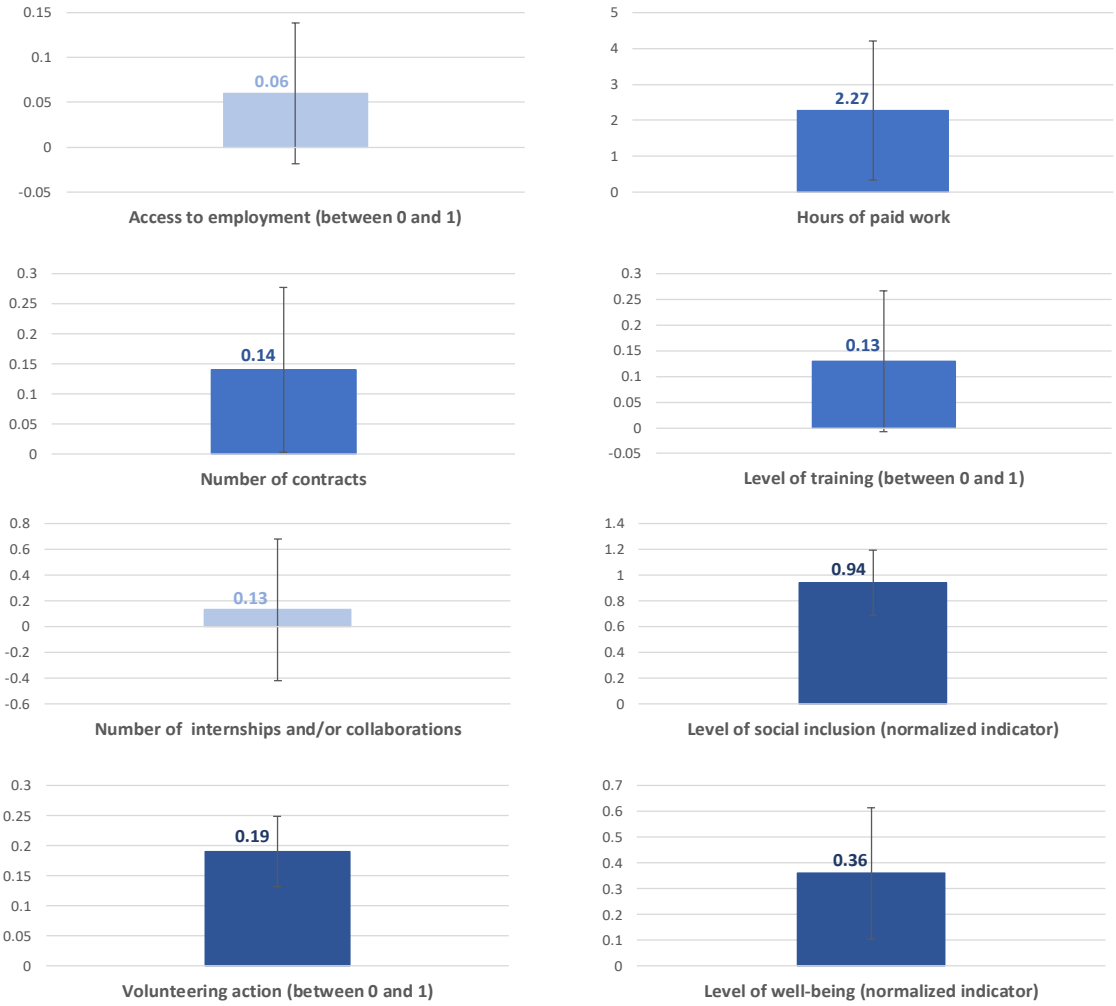
6 Conclusions of the evaluation

Persons with intellectual and/or developmental disabilities in Spain have much lower labor force participation and employment rates than people without these disabilities. The aim of this study is to obtain causal evidence on the benefits of using the personalized employment methodology compared to the traditional methodology implemented by Confederación Plena Inclusión España to date to promote employment and social inclusion of people with intellectual disabilities.

This study estimates the impact of the personalized employment methodology on labor market outcomes, social inclusion, and well-being. The RTC randomly assigns a total of 435 persons with intellectual and/or developmental disabilities to a treatment group and a control group (employment support). However, there is a significantly lower proportion of persons with intellectual and/or developmental disabilities with employment and other employment and inclusion outcomes in the treatment group than in the control group. On the other hand, within the group of persons with intellectual and/or developmental disabilities who are unemployed, the treatment and control groups are balanced, except for their participation in volunteering activities. Secondly, although the methodologies used are the same, the objectives pursued by the intervention are different in the case of persons with intellectual and/or developmental disabilities employed and unemployed. For both reasons, the analysis is exclusively focused on the effects of the intervention for the latter, which account for 85% of the initial sample (435 out of 512 persons).

The analysis of the results for these people indicates that the treatment induces longer working hours and more employment contracts, although not a higher employment rate at the end of treatment. Analysis of administrative data reveals that the treatment results in a higher number of days worked only in the cases of persons with intellectual and/or developmental disabilities with a higher degree of disability or who do not have recognized dependency, while it is negative for those who do. In contrast, treatment does not significantly affect job stability. The treatment also increases the performance of training activities and, for the two groups of persons with intellectual and/or developmental disabilities participation in work placements. Finally, treatment generates higher levels of social inclusion, volunteering activities, and well-being. **Figure 7** displays these results graphically.

Figure 7: Effect of the intervention on headline indicators



Note: Dark blue indicates indicators for which the treatment effect is significant at the 1% level (level of social inclusion, volunteering action and level of well-being) are presented in dark blue; blue indicate indicators for which the treatment effect is significant at the 10% level (hours of paid work, number of contracts and level of training); while light blue represents non-significant indicators (access to employment and number of internships and/or collaborations). The effects included in the charts refer to regressions with additional controls.

In summary, the results obtained point to the effectiveness of the personalized employment methodology to facilitate the labor insertion of persons with intellectual and/or developmental disabilities, especially for some groups of persons with intellectual disabilities, as well as to raise their level of social inclusion and well-being.

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Appendix

Economic and regulatory management

1. Introduction

Within the framework of the Recovery, Transformation, and Resilience Plan, the General Secretariat for Inclusion (SGI) of the Ministry of Inclusion, Social Security, and Migration is significantly involved in Component 23 "New public policies for a dynamic, resilient, and inclusive labor market" framed in policy area VIII "New care economy and employment policies."

Investment 7 "Promotion of Inclusive Growth by linking socio-labor inclusion policies to the Minimum Income Scheme" is one of the reforms and investments proposed in this Component 23. Investment 7 promotes the implementation of a new inclusion model based on the Minimum Income Scheme (MIS), which reduces income inequality and poverty rates. To achieve this objective, the development of pilot projects has been proposed, among others, for the implementation of social inclusion pathways with autonomous communities, local entities, and Third Sector of Social Action organizations, as well as with the different social agents.

Royal Decree 938/2021, of October 26, which regulates the direct granting of subsidies from the Ministry of Inclusion, Social Security, and Migrations in the field of social inclusion, for an amount of €109,787,404, within the framework of the Recovery, Transformation, and Resilience Plan[31], contributed to meeting milestone 350 for the first quarter of 2022 as outlined in the Council's Implementing Decision: "Improve the rate of access to the Minimum Income Scheme, and increase the effectiveness of the MIS through inclusion policies, which, according to its description, will translate into supporting the socio-economic inclusion of the beneficiaries of the MIS through itineraries: eight collaboration agreements signed with subnational public administrations, social partners and entities of the Third Sector of Social Action to conduct the pathways. The objectives of these partnership agreements are: (i) improve the MIS access rate; ii) increase the effectiveness of the MIS through inclusion policies". Likewise, together with Royal Decree 378/2022, of May 17[32], "at least 10 additional collaboration agreements signed with subnational public administrations, social partners and entities of the Third Sector of Social Action to conduct pilot projects to support the socioeconomic inclusion of the beneficiaries of the MIS through itineraries" contributed to compliance with

[31] Royal Decree 938/2021, of October 26, regulating the direct granting of subsidies from the Ministry of Inclusion, Social Security, and Migrations in the field of social inclusion, for an amount of €109,787,404, within the framework of the Recovery, Transformation, and Resilience Plan (BOE-A-2021-17464). It can be consulted at the following link: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2021-17464.

[32] Royal Decree 378/2022, of May 17, 2022, regulating the direct granting of subsidies from the Ministry of Inclusion, Social Security and Migration in the field of social inclusion, for an amount of €102,036,066, within the framework of the Recovery, Transformation and Resilience Plan (BOE-A-2022-8124). It can be consulted at the following link: https://www.boe.es/diario_boe/txt.php?id=BOE-A-2022-8124.

monitoring indicator number 351.1 in the first quarter of 2023, linked to the Operational Arrangements document[33].

Furthermore, following the execution and evaluation of each of the subsidized pilot projects, an assessment will be conducted to evaluate the coverage, effectiveness, and success of the minimum income schemes. The publication of this assessment, which will include specific recommendations to improve the access rate to the benefit and enhance the effectiveness of social inclusion policies, contributes to the achievement of milestone 351 of the Recovery, Transformation, and Resilience Plan scheduled for the first quarter of 2024.

In accordance with Article 3 of Royal Decree 938/2021, dated October 26, subsidies will be granted through a resolution accompanied by an agreement of the head of the Ministry of Inclusion, Social Security and Migration as the competent body for granting them, without prejudice to the delegations of existing competences in the matter, upon request by the beneficiary organizations.

On **December 2, 2021**, Confederación Plena Inclusión España was notified of the Resolution from the General Secretariat of Objectives and Policies for Inclusion and Social Welfare, granting a subsidy of €2,540,972. Subsequently, on the same date, a Convention was signed between the General Administration of the State, represented by the General Secretariat of Objectives and Policies for Inclusion and Social Welfare, and the Regional Government of Galicia, for the implementation of a project for social inclusion within the framework of the Recovery, Transformation, and Resilience Plan. This Convention was published in the "Boletín Oficial del Estado" on **February 2, 2022** (BOE No. 28)[34].

2. Time frame of the intervention

Article 16(1) of Royal Decree 938/2021, dated October 26, established that the execution period for the pilot projects of social inclusion itineraries subject to the subsidies provided for in this text shall not exceed the deadline of June 30, 2023, while their evaluation, the subject of the subsidy, shall not extend beyond the deadline of March 31, 2024, in order to meet the milestones, set by the Recovery, Transformation, and Resilience Plan regarding inclusion policy.

However, in accordance with Section 2 of the first final provision of Royal Decree 378/2022, of May 17, Article 6(4) and Article 6(1) are redrafted to extend the maximum term of the pilot projects of social inclusion itineraries subject to the subsidies until **October 31, 2023**, maintaining the deadline of **March 31, 2024,** for their evaluation

[33] Decision of the European Commission approving the document 'Operational Provisions of the Recovery, Transformation and Resilience Plan', which can be consulted at the following link: https://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/hacienda/Documents/2021/101121-CountersignedESFirstCopy.pdf.

[34] Resolution of January 21, 2022, of the General Secretariat of Inclusion and Social Welfare Objectives and Policies, which publishes the Agreement with the Confederación Plena Inclusión España, for the implementation of a project for social inclusion within the framework of the Recovery, Transformation and Resilience Plan, which can be consulted at the following link://www.boe.es/diario_boe/txt.php?id=BOE-A-2022-1709

On August 5, 2022, Confederación Plena Inclusión España requested an extension of the execution period until October 31, 2023. This extension was authorized by resolution of the General Secretariat of Objectives and Policies for Social Inclusion (SGOPIPS) dated September 16, 2022.

Within this generic time frame, the execution begins on **February 1, 2023**, with the start of the intervention itinerary, continuing the execution tasks until **October 31, 2023**, and subsequently, only tasks related to project dissemination and evaluation are conducted until **March 31, 2024**

3. Relevant Agents

Among the relevant agents for the implementation of the project are:

- **Confederación Plena Inclusión España**, the applicant and beneficiary of the project, in collaboration with:
  a) 12 Autonomous Federations of Plena Inclusión and the Association of the Autonomous City of Ceuta: member entities of Confederación Plena Inclusión España and beneficiaries of the project.
  b) 44 third-level entities that execute the project together with the requesting entity, have a series of specific tasks and commitments, as well as an assigned budget. Their form of collaboration is carried out through subcontracting.

Name of the entity	Activities	Autonomous community
FUNDACIÓN ASPREM	Area specialized in handling and manufacturing for industrial companies, wine and food sectors	La Rioja
ASOCIACIÓN IGUAL A TI	NGO that provides support to persons with intellectual or developmental disabilities and their families	La Rioja
ARPA AUTISMO RIOJA	Social services activities without accommodation for persons with disabilities	La Rioja
FUNDACIÓN VALENTIA HUESCA	Cleaning services for streets, public roads and gardens, etc.	Aragón
KAIRÓS, COOPERATIVA DE INICIATIVA	Social initiative cooperative; Non-profit entity	Aragón
ASOCIACIÓN ALARDE	Practice, promotion, knowledge or enjoyment of the arts	Asturias
ADEPAS	Education	Asturias
ASOCIACIÓN FRATERNIDAD	Services	Asturias
FUNDACIÓN EDES PARA LA EDUCACIÓN ESPECIAL	Other Social Service Activities Without Accommodation	Asturias
AVANTE 3	Non-profit association that works for the autonomy and defense of the rights of persons with intellectual or developmental disabilities, as well as	

	promotes their social and labor inclusion	Community of Madrid
AFANIAS	Organization dedicated to gardening, cleaning, printing, food and handling	Community of Madrid
FUNDACIÓN A LA PAR	Foundation that works for the rights and participation of persons with intellectual disabilities	Community of Madrid
ALEPH-TEA	Day Center for persons with intellectual disabilities affected by autism spectrum disorders (ASD). Network of care for adults with physical, intellectual and sensory disabilities	Community of Madrid
ASOCIACIÓN PARA LA ATENCIÓN DE PERSONAS CON DISCAPACIDAD-ADISLI	Support for persons with borderline intelligence or mild intellectual disabilities to develop their life projects	Community of Madrid
FUNDACIÓN APROCOR	Social service activities without accommodation for persons with disabilities. Commercial dry cleaning	Community of Madrid
APADIS	Social Services Activities without Accommodation	Community of Madrid
ASOCIACIÓN PARA LA INCLUSIÓN SOCIAL DE PERSONAS CON DIVERSIDAD FUNCIONAL DE LA COMUNIDAD DE MADRID (ASPIMIP)	Association for the Inclusion of persons with functional diversity in the Community of Madrid	Community of Madrid
FUNDACIÓN ADEMO	Social service activities without accommodation for persons with disabilities	Community of Madrid
FUNDACIÓN APASCOVI	Assistance in Residential Establishments for persons with Intellectual Disabilities, Mental Illness and Drug Dependence	Community of Madrid
FUNDACIÓN PRODIS	Social service activities without accommodation for persons with disabilities	Community of Madrid
ASOCIACIÓN ASPERGER MADRID	Fathers and mothers' school; occupational therapy; Training in activities of daily living; Leisure activities and free time	Community of Madrid
FUNDACIÓN SÍNDROME DE DOWN DE MADRID	Assistance in residential establishments for persons with physical disabilities	Community of Madrid
INTEGRA, ASSOCIACIÓ PER LA INCLUSIÓ DE COL·LECTIUS DE RISC	Association for groups at risk. Promote programs aimed at groups in vulnerability and social exclusion	Catalonia

FUNDACIO BADALONA CAPAÇ	Social service activities without accommodation for persons with disabilities	Catalonia
FUNDACIÓ AMPANS	Gardening, cleaning, manipulations, graphic arts, environmental services, kiosks and food	Catalonia
FUNDACIÓN PRIVADA ASPROS	Manufacture of wooden containers and packaging	Catalonia
APRODISCA (ASSOCIACIÓ PRO PERSONES AMB DISMINUCIÓ PSÍQUICA DE LA CONCA DE BARBERÀ)	Business consulting, cleaning services, industrial handling, gardening services, ecological cultivation, production and handling, and graphic arts services	Catalonia
AURA FUNDACIÓ	Work with persons with intellectual disabilities to increase the quality of life to ensure that they can work in ordinary companies, promoting total normalization	Catalonia
PLENA INCLUSIÓN CABEZA DEL BUEY	Support to persons with intellectual or developmental disabilities and their families to improve their quality of life	Extremadura
PLENA INCLUSIÓN MONTIJO	Other Social Service Activities Without Accommodation	Extremadura
ASOC PLENA INCLUSIÓN XEREZ	Confección de Otras Prendas de Vestir y Accesorios	Extremadura
ASOC. EXTREMEÑA PADRES PARA LA INTEGRACION EL BIENESTAR Y LA AUTONOMIA (Aexpainba)	Manufacture of Other Clothing and Accessories	Extremadura
PLENA INCLUSIÓN DON BENITO	Other Printing and Graphic Arts Activities	Extremadura
ASOC PLENA INCLUSIÓN LLERENA	Asociación sin ánimo de lucro que trabaja en favor de las personas con discapacidad intelectual o del desarrollo de Llerena y su comarca	Extremadura
INCLUSIVES; PLENA INCLUSIÓN VILLANUEVA DE LA SERENA	Assistance in Residential Establishments	Extremadura
ASSOCIACIÓ TREVOL	Advertising agencies	Comunitat Valenciana
PROJECTE TOLA COOP.V	Specialized social services	Comunitat Valenciana
ASOCIACIÓN PROMINUSVALIDOS PSÍQUICOS COMARCA SAFOR (ASMISAF)	Other Social Service Activities Without Accommodation	Comunitat Valenciana
PATRONATO INTERMUNICIPAL FRANCISCO ESTEVE PATERNA	Another education. Community and social organizations	Comunitat Valenciana

ASPRONA (ASOC VALENCIANA PROPERSONAS CON DISCAPACIDAD PSIQUICA)	Services to persons with intellectual or developmental disabilities and their families	Comunitat Valenciana
ASIDO CARTAGENA	Services for the person and family	Region of Murcia
ASTRAPACE	Health Activities	Region of Murcia
ASTRADE (ASOC PARA LA ATENCIÓN DE PERSONAS CON TRASTORNOS DEL DESARROLLO DE LA REGIÓN DE MURCIA)	Services for the person and family	Region of Murcia
CEOM, ASOCIACIÓN PARA LA INTEGRACIÓN DE PERSONAS CON DISCAPACIDAD INTELECTUAL	Assistance in residential establishments for persons with intellectual disabilities, mental illness and drug addiction	Region of Murcia

- The **Ministry of Inclusion, Social Security and Migration (MISSM)** as the project sponsor and the main responsible entity for the RCT evaluation process. To fulfill this role, the General Secretariat of Inclusion (SGI) assumes the following commitments:
  a) Assist the beneficiary entity in the design of the actions to be conducted for the implementation and monitoring of the object of the grant, as well as for the profiling potential participants in the pilot project.
  b) Design the randomized controlled trial (RCT) methodology of the pilot project in coordination with the beneficiary entity.
  c) Evaluate the pilot project in coordination with the beneficiary entity.

- **IDOCAL** (Institute for Research in HR Psychology, Organizational Development and Quality of Work Life, of the University of Valencia), technical assistance to Plena Inclusión in follow-up issues and tasks related to the RCT evaluation.

- **CEMFI and J-PAL Europe,** as scientific and academic institutions supporting MISSM in the design and RCT evaluation of the project

Sample Description

Table 8: Descriptives of the full sample1

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Treatment	512	0.51	0.5	0	1
Sociodemographic indicators					
Female	512	0.44	0.5	0	1
Age	512	31.52	7.97	20	52

Education higher than Primary	512	0.32	0.47	0	1
Disability	502	0.54	1.34	0.32	0.78
Disability over 65%	502	0.49	0.5	0	1
Born in Spain	512	0.91	0.28	0	1
Spanish nationality	512	0.96	0.19	0	1
Number of employments last 12 months	510	0.48	0.5	0	1
Disability recognized	500	0.57	0.5	0	1
Receives pension	500	0.09	0.29	0	1
Receives pension greater than IPREM	510	0.63	0.48	0	1
Work life project (PIDD)	507	0.64	0.48	0	1
Work life project (familiar)	512	0.61	0.49	0	1
Outcome indicators					
Employment	512	0.15	0.36	0	1
Hours	512	2.42	7.09	0	40
Hours if employed	77	16.09	10.75	0	40
Contracts	512	0.37	0.6	0	3
Training	512	0.29	0.45	0	1
Internship	512	0.43	0.7	0	5
Social inclusion [a]	506	0	1	-1.4	6.54
Volunteering	512	0.09	0.29	0	1
Wellbeing [a]	271	0.00	1.00	-2.76	2.4
Labor intensity	501	0.13	0.26	0	1
Labor intensity FTE	501	0.08	0.17	0	1
Labor stability	202	0.32	0.47	0	1
Labor stability (definition 2)	202	0.28	0.45	0	1
Part-time contract	202	0.67	0.47	0	1
Indicators by collectives					
New places (professional)	512	0.43	0.82	0	8
New relations (professional)	512	0.75	1.99	0	15
Satisfaction with relations (professional)	512	5.6	2.75	1	10
Satisfaction with relations (PIDD)	161	7.96	2.24	1	10
Satisfaction with relations (familiar)	156	7.4	2.43	1	10
Visibility (professional)	512	5.29	2.99	1	10

Visibility (PIDD)	510	5.76	3.33	1	10
Visibility (familiar)	507	5.67	3.1	1	10
Self-esteem (professional)	310	7.65	1.84	1	10
Self-esteem (PIDD)	321	8.25	2.02	1	10
Self-esteem (familiar)	322	7.49	2.35	1	10
Satisfaction (professional)	310	7.86	1.82	1	10
Satisfaction (PIDD)	321	8.31	1.91	1	10
Satisfaction (familiar)	322	7.84	2.17	1	10

Note: persons with intellectual and/or developmental disabilities who are initially unemployed or employed. All variables are measured before the start of treatment. Indicators of social inclusion and well-being are constructed according to Anderson's (2008) method.

Balance between experimental groups

Table 9 reports balance tests between the control group and the treatment group. All data reflected in this table refer to the survey conducted before the intervention. The mean value of each variable is reported for both groups, as well as the number of observations in each group and the p-value resulting from a test of mean differences (using the t-Student statistic, not reported for space reasons) which includes random allocation strata as additional controls. The lower the p-value, the more confidently the hypothesis that the variable means in both groups are equal can be rejected. For example, if the p-value is less than 0.05, the hypothesis of equal means can be rejected with 95% confidence.

Table 9: Balance test between experimental groups2

	Control		**Treatment**		**Obs.**	***p-value***
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
Sociodemographic indicators						
Female	203	0.42 (0.87)	232	0.44 (1.00)	435	0.61
Age	203	31.89 (242.78)	232	31.47 (246.87)	435	0.56
Education higher than Primary	203	0.29 (0.73)	232	0.35 (0.92)	435	0.19
Disability	201	0.54 (6.20)	225	0.54 (7.29)	426	0.97
Disability over 65%	201	0.51 (0.88)	225	0.51 (0.99)	426	0.93
Born in Spain	203	0.91	232	0.93	435	0.58

	Control		Treatment		Obs.	*p-value*
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
		(0.29)		(0.28)		
Spanish nationality	203	0.97 (0.10)	232	0.96 (0.15)	435	0.66
Number of employments last 12 months	201	0.27 (1.37)	223	0.26 (1.25)	424	0.85
Disability recognized	201	0.49 (0.88)	232	0.47 (1.01)	433	0.72
Receives pension	201	0.57 (0.87)	223	0.60 (0.94)	424	0.40
Receives pension greater than IPREM	201	0.08 (0.26)	223	0.11 (0.39)	424	0.23
Work life project (PIDD)	201	0.60 (0.85)	232	0.61 (0.97)	433	0.78
Work life project (familiar)	200	0.61 (0.85)	232	0.60 (0.97)	432	0.88
Work life project (professional)	203	0.55 (0.88)	232	0.61 (0.97)	435	0.20
Outcome indicators						
Contracts	203	0.21 (0.76)	232	0.22 (0.84)	435	0.73
Training	203	0.32 (0.77)	232	0.27 (0.81)	435	0.33
Internship	203	0.44 (2.03)	232	0.41 (1.79)	435	0.55
Social inclusion [a]	199	0.07	232	-0.06	431	0.18

	Control		Treatment		Obs.	*p-value*
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
		(3.85)		(3.73)		
Volunteering	203	0.06	232	0.12	435	0.02**
		(0.20)		(0.43)		
Well-being [a]	95	0.01	125	-0.01	220	0.86
		(2.16)		(3.11)		
Labor intensity	201	0.09	225	0.08	426	0.83
		(0.13)		(0.14)		
Labor intensity FTE	201	0.06	225	0.05	426	0.57
		(0.09)		(0.07)		
Labor stability	60	0.20	74	0.14	134	0.27
		(0.25)		(0.23)		
Labor stability (definition 2)	60	0.13	74	0.12	134	0.83
		(0.18)		(0.21)		
Part-time contract	60	0.55	74	0.69	134	0.07*
		(0.38)		(0.42)		
Indicators by collectives						
New places (professional)	203	0.47	232	0.34	435	0.09*
		(2.40)		(2.63)		
New relations (professional)	203	0.93	232	0.44	435	0.01**
		(17.42)		(11.00)		
Satisfaction with relations (professional)	203	5.43	232	5.24	435	0.50
		(26.56)		(30.24)		
Visibility (professional)	38	7.47	49	7.67	87	0.65
		(10.70)		(6.77)		
Satisfaction with	35	7.17	50	7.06	85	0.82

	Control		Treatment		Obs.	*p-value*
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
relations (PIDD)		(8.42)		(11.82)		
Satisfaction with relations (familiar)	203	4.93 (30.84)	232	5.01 (36.75)	435	0.78
Visibility (PIDD)	201	5.37 (39.87)	232	5.43 (44.93)	433	0.84
Visibility (familiar)	200	5.35 (36.38)	232	5.50 (38.95)	432	0.66
Self-esteem (professional)	112	7.61 (7.39)	141	7.34 (12.57)	253	0.33
Self-esteem (PIDD)	120	8.31 (9.44)	141	8.09 (15.46)	261	0.38
Self-esteem (familiar)	122	7.15 (13.33)	140	7.48 (17.68)	262	0.33
Satisfaction (professional)	112	7.82 (6.81)	141	7.56 (12.86)	253	0.37
Satisfaction (PIDD)	120	8.32 (9.57)	141	8.20 (12.28)	261	0.65
Satisfaction (familiar)	122	7.45 (13.60)	140	7.89 (13.35)	262	0.18

Note: persons with intellectual and/or developmental disabilities who are initially unemployed. All variables are measured before the start of treatment. Indicators of social inclusion and well-being are constructed according to Anderson's (2008) method. p-values are calculated from a regression that groups the standard errors by locality. * $p < 0.1$, ** $p < 0.05$ and *** $p < 0.01$.

On the other hand, **Table 10** reports the balance contrasts between the control group and the treatment group for the full sample.

Table 10: Balance test between experimental groups in the full sample

	Control		Treatment		Obs.	*p-value*
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
Sociodemographic indicators						
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 higher than Primary	253	0.32 (0.97)	259	0.33 (1.00)	512	0.86
Disability	251	53.21 (787.38)	251	53.86 (796.90)	502	0.54
Disability over 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
Number of employments last 12 months	251	0.43 (2.13)	249	0.35 (1.74)	500	0.20
Disability recognized	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
Receives pension greater than IPREM	251	0.08 (0.32)	249	0.10 (0.41)	500	0.26
Work life project (PIDD)	251	0.63 (1.03)	259	0.63 (1.06)	510	1.00
Work life project (familiar)	248	0.64 (1.02)	259	0.63 (1.06)	507	0.77
Work life project (professional)	253	0.58 (1.08)	259	0.63 (1.06)	512	0.16
Outcome indicators						
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**
Hours if employed	50	16.72 (209.93)	27	14.93 (146.44)	77	0.41
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

	Control		Treatment		Obs.	*p-value*
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
Internship	253	0.43 (2.35)	259	0.44 (2.06)	512	0.84
Social inclusion [a]	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 [a]	125	0.01 (2.82)	146	-0.01 (3.37)	271	0.86
Labor intensity	250	0.15 (0.31)	251	0.12 (0.26)	501	0.14
Labor intensity FTE	250	0.09 (0.15)	251	0.07 (0.10)	501	0.08*
Labor stability	105	0.37 (0.51)	97	0.27 (0.45)	202	0.10
Labor stability (definition 2)	105	0.30 (0.46)	97	0.26 (0.44)	202	0.43
Part-time contract	105	0.65 (0.50)	97	0.70 (0.48)	202	0.34
Indicators by collectives						
New places (professional)	253	0.50 (3.07)	259	0.36 (2.84)	512	0.05**
New relations (professional)	253	1.02 (23.02)	259	0.48 (12.01)	512	0.00***
Satisfaction with relations (professional)	253	5.66 (32.50)	259	5.53 (35.48)	512	0.59
Visibility (professional)	85	7.80 (12.49)	76	8.14 (8.37)	161	0.29
Satisfaction with relations (PIDD)	79	7.38 (11.91)	77	7.43 (11.92)	156	0.88
Satisfaction with relations (familiar)	253	5.23 (37.00)	259	5.35 (42.89)	512	0.70
Visibility (PIDD)	251	5.78 (48.13)	259	5.75 (50.85)	510	0.92
Visibility (familiar)	248	5.63 (42.82)	259	5.72 (43.20)	507	0.76
Self-esteem (professional)	146	7.79 (8.95)	164	7.53 (13.34)	310	0.27
Self-esteem (PIDD)	158	8.31 (11.06)	163	8.18 (16.99)	321	0.55
Self-esteem (familiar)	159	7.36 (16.72)	163	7.62 (18.93)	322	0.37
Satisfaction (professional)	146	7.99 (8.20)	164	7.75 (13.76)	310	0.36

	Control		Treatment		Obs.	*p-value*
Variable	**Obs.**	**Mean/Std.Dev.**	**Obs.**	**Mean/Std.Dev.**		
Satisfaction (PIDD)	158	8.36	163	8.26	321	0.66
		(10.78)		(14.16)		
Satisfaction (familiar)	159	7.70	163	7.98	322	0.35
		(16.07)		(14.33)		

Note: persons with intellectual and/or developmental disabilities who are initially unemployed or employed. All variables are measured before the start of treatment. Indicators of social inclusion and well-being are constructed according to Anderson's (2008) method. p-values are calculated from a regression that groups the standard errors by locality. * p < 0.1, ** p < 0.05 and *** p < 0.01.

Additional tables of heterogeneity analysis results

Employment

Table 11: Heterogeneous effects on employment by gender, degree of disability, and dependency on labor intensity

	Labor intensity (During)	Labor intensity (After)	Labor intensity (Overall)	Labor intensity FTE (During)	Labor intensity FTE (After)	Labor intensity FTE (Overall)
	(1)	(2)	(3)	(4)	(5)	(6)
A. By gender						
Treatment	0.01	0.01	0.01	-0.00	0.00	-0.00
	(0.03)	(0.05)	(0.03)	(0.03)	(0.04)	(0.03)
Treatment x Female	-0.02	0.04	-0.00	-0.02	0.03	-0.00
	(0.05)	(0.07)	(0.05)	(0.04)	(0.05)	(0.04)
Female	0.05	-0.05	0.02	0.01	-0.06	-0.00
	(0.04)	(0.05)	(0.04)	(0.03)	(0.04)	(0.03)
Observations	423	423	423	423	423	423
Dependent control variable mean	0.13	0.17	0.17	0.09	0.11	0.10
B. By degree of disability						
Treatment	-0.04	0.03	-0.02	-0.06	-0.01	-0.04
	(0.05)	(0.07)	(0.05)	(0.04)	(0.05)	(0.04)
Treatment x (Disability over 65%)	0.07	-0.01	0.05	0.09**	0.04	0.08*
	(0.06)	(0.08)	(0.06)	(0.04)	(0.07)	(0.04)
Disability over 65%	-0.18***	-0.21***	-0.18***	-0.13***	-0.19***	-0.15***
	(0.04)	(0.06)	(0.04)	(0.04)	(0.05)	(0.04)
Observations	423	423	423	423	423	423

Dependent control variable mean	0.13	0.17	0.14	0.09	0.11	0.10
C. By dependency recognized						
Treatment	0.03	0.09*	0.05	0.02	0.08*	0.04
	(0.04)	(0.05)	(0.04)	(0.03)	(0.04)	(0.03)
Treatment x (Dependency recognized)	-0.08*	-0.14**	-0.09*	-0.06*	-0.14**	-0.08**
	(0.04)	(0.06)	(0.04)	(0.03)	(0.06)	(0.04=
Dependency recognized	0.01	0.02	0.01	0.03	0.03	0.03
	(0.03)	(0.05)	(0.03)	(0.03)	(0.04)	(0.03)
Observations	422	422	422	422	422	422
Dependent control variable mean	0.13	0.17	0.14	0.09	0.12	0.10

Note: persons with intellectual and/or developmental disabilities who are initially unemployed. All regressions include binary variables of locality and the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * p < 0.1, ** p < 0.05 and *** p < 0.01.

Table 12: Heterogeneous effects on employment by gender, degree of disability, and dependency on labor stability

	Stability (During)	Stability (After)	Stability (Overall)	Stability (alt.) (During)	Stability (alt.) (After)	Stability (alt.) (Overall)
	(1)	(2)	(3)	(4)	(5)	(6)
A. By gender						
Treatment	-0.15	0.04	-0.07	-0.05	0.03	-0.01
	(0.15)	(0.15)	(0.13)	(0.12)	(0.14)	(0.11)
Treatment x Female	0.27	-0.01	0.23	0.17	0.05	0.15
	(0.27)	(0.24)	(0.21)	(0.23)	(0.27)	(0.22)
Female	-0.26	-0.09	-0.20	-0.23	-0.13	-0.18
	(0.17)	(0.19)	(0.13)	(0.19)	(0.22)	(0.16)
Observations	138	119	169	138	119	169
Dependent control variable mean	0.37	0.43	0.36	0.25	0.31	0.24
B. By degree of disability						
Treatment	0.03	0.05	0.10	0.05	0.07	0.07
	(0.14)	(0.15)	(0.19)	(0.19)	(0.20)	(0.14)
Treatment x (Disability over 65%)	-0.25	-0.04	-0.23	-0.10	-0.01	-0.07
	(0.26)	(0.30)	(0.19)	(0.19)	(0.20)	(0.14)
Disability over 65%	-0.06	-0.11	-0.07	-0.04	-0.17	-0.18

	(0.18)	(0.20)	(0.15)	(0.16)	(0.18)	(0.13)
Observations	138	119	169	138	119	169
Dependent control variable mean	0.37	0.43	0.36	0.25	0.31	0.24
C. By dependency recognized						
Treatment	-0.11	-0.07	-0.03	-0.06	-0.04	-0.00
	(0.14)	(0.16)	(0.10)	(0.12)	(0.12)	(0.09)
Treatment x (Dependency recognized)	0.23	0.30	0.16	0.25	0.29	0.14
	(0.22)	(0.25)	(0.18)	(0.19)	(0.22)	(0.15=
Dependency recognized	-0.25	-0.23	-0.18	-0.21	-0.12	-0.14
	(0.18)	(0.19)	(0.14)	(0.15)	(0.14)	(0.11)
Observations	138	119	169	138	119	169
Dependent control variable mean	0.37	0.43	0.36	0.25	0.31	0.24

Note: persons with intellectual and/or developmental disabilities who are initially unemployed. All regressions include binary variables of locality and the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * p < 0.1, ** p < 0.05 and *** p < 0.01.

Social inclusion and well-being

Table 13: Heterogeneous effects by gender, degree of disability, and dependency on social inclusion and well-being

	Inclusion	Volunteering	Well-being
	(1)	(2)	(3)
A. By gender			
Treatment	0.86***	0.17***	0.39***
	(0.15)	(0.04)	(0.14)
Treatment x Female	0.18	0.02	-0.06
	(0.19)	(0.07)	(0.21)
Female	-0.02	0.01	-0.09
	(0.12)	(0.04)	(0.14)
Observations	418	423	418
Dependent control variable mean	-0.48	0.09	-0.19
B. By degree of disability			
Treatment	0.78***	0.18***	0.24
	(0.13)	(0.05)	(0.17)
Treatment x (Disability over 65%)	0.30	0.02	0.25

	(0.21)	(0.06)	(0.22)
Disability over 65%	-0.35***	0.07	-0.18
	(0.13)	(0.05)	(0.19)
Observations	418	423	418
Dependent control variable mean	-0.48	0.09	-0.19
C. By dependency recognized			
Treatment	0.89***	0.17***	0.40**
	(0.12)	(0.05)	(0.18)
Treatment x (Dependency recognized)	0.08	0.03	-0.08
	(0.21)	(0.07)	(0.22)
Dependency recognized	-0.23	-0.00	0.05
	(0.17)	(0.05)	(0.19)
Observations	417	422	417
Dependent control variable mean	-0.48	0.09	-0.18

Note: persons with intellectual and/or developmental disabilities who are initially unemployed. All regressions include binary variables of locality and the previous value of the volunteering indicator. Standard errors grouped at the locality level in parentheses. * p < 0.1, ** p < 0.05 and *** p < 0.01.