Inclusion Policy Lab: Evaluation Results

Cruz Roja Española – Active inclusion itineraries for recipients of the Minimum Income Scheme or Regional Minimum Income

May 2024

Financiado por la Unión Europea NextGenerationEU
MINISTERIO DE INCLUSIÓN, SEGURIDAD SOCIAL Y MIGRACIONES
Plan de Recuperación, Transformación y Resiliencia
Cruz Roja
cemfi
J-PAL

Catalogue of publications of the General State Administration

https://cpage.mpr.gob.es

Madrid, 2025

Author:

General Secretariat for Inclusion

Edited and distributed by:

General Secretariat for Inclusion

Calle Agustín de Betancourt, 19. 28003 Madrid

E-mail: sg.inclusion@inclusion.gob.es

Web: https://www.inclusion.gob.es/web/inclusion

NIPO PDF 121-25-034-7

Quotation:

General Secretariat for Inclusion, Ministry for Inclusion, Social Security and Migration (2025). Inclusion Policy Lab: Evaluation Results. Cruz Roja Española – Active inclusion itineraries for recipients of the Minimum Income Scheme or Regional Minimum Income.

Financiado por la Unión Europea NextGenerationEU

MINISTERIO DE INCLUSIÓN, SEGURIDAD SOCIAL Y MIGRACIONES

Plan de Recuperación, Transformación y Resiliencia

Cruz Roja

cemfi

J-PAL

The General Secretariat of Inclusion of the Ministry of Inclusion, Social Security, and Migration has prepared this report within the framework of the Inclusion Policy Lab, as part of the Recovery, Transformation, and Resilience Plan (RTRP). It has been funded by the Next Generation EU funds. As the agency in charge of carrying out the project, Cruz Roja Española has participated in the writing of this report. This collaborating entity is one of the implementers of pilot projects and has collaborated with the General Secretariat of Inclusion in 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. Furthermore, their collaboration has been essential to gathering informed consents, ensuring that 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), Verónica Gonzales Stuva (ESADE) and Pedro Rey-Biel (ESADE) have participated under the coordination of Mónica Martínez-Bravo (until January 8, 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 consistently demonstrated a commitment to promoting the adoption of evidence-based policy and facilitating the integration of empirical data into strategies that promote inclusion and progress within our society.

This evaluation report has been produced using the data available at the time of its writing and 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.

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 project "Active inclusion itineraries for recipients of the Minimum Income Scheme or Regional Minimum Income", which has been performed in **cooperation between the Ministry of Inclusion, Social Security and Migration (MISSM) and Cruz Roja Española,** an organization of the Third Sector of Social Action.
- This study assesses the impact of social activation and qualification pathway. The project is targets individuals receiving the MIS or regional minimum income and residing in the provinces of Albacete, León, Madrid, Málaga, Murcia and Pontevedra. It focuses on those aged between 25 and 55 years, with a preference for unemployed women and/or individuals from families where all adult members are either unemployed or have low work intensity.
- All participants receive support from Cruz Roja to address their urgent basic needs. In addition to this general support, members **of the treatment group** receive comprehensive services including motivation, activation and accompaniment, basic skills, digital literacy, personalized guidance, and training to obtain a certificate of professionalism.
- The initial sample consisted of a total of 1,364 people, with 683 in the treatment group and 681 in the control group. In addition, there were 100 individuals in the reserve sample to replace any potential dropouts.
- 79% of the participants are women, 85% have Spanish nationality and 45% have compulsory secondary education (ESO) or its equivalent. Regarding family responsibilities, 68% are part of families with children, and 46% are single-parent families.
- In the treatment group, 45% of participants dropped out of the sample after randomization, while only 25% completed the project. In the control group, approximately 53% left the project after randomization and 43% completed it.
- The main results of the evaluation are as follows:
    - **Positive impact on personal autonomy:** The specialized program reduces the risk of poor psychological health, increases tolerance to frustration, and improves problem identification, knowledge of resources, and digital skills.
    - **Improved employability:** the treatment shows positive impacts on the self-perceived probability of finding employment. In addition, participants in the treatment group use, on average, more methods for job search than those in the control group.

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 (onward SGI by its acronyms 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, dated December 20, establishing the Minimum Income Scheme (BOE-A-2021-21007).

[2] Article 31.1 of Law 19/2021, dated December 20, 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

[4] Royal Decree 938/2021, dated October 26, 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 MIS access rate; ii) increase the effectiveness of the MIS 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 MIS beneficiaries through itineraries".

[7] Royal Decree 378/2022, dated May 17, 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).

has benefited most from the interventions, whether there were indirect or unexpected effects, and which components of the intervention worked, and which did not.

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 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 the "Active inclusion itineraries for recipients of the Minimum Income Scheme or Regional Minimum Income", executed within the framework of Royal Decree 378/2022[9] by Cruz Roja Española, an organization of the Third Sector of Social Action, dedicated to a wide range of activities to help people in emergency and vulnerable situations. This report contributes to the fulfillment of milestone 351 of the RTRP: "After the completion of at least 18 pilot projects, 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

Social exclusion is a complex and multifaceted phenomenon that affects millions of people around the world. It is not only characterized by the insufficiency of economic resources to cover basic needs such as food, housing, and medical care, but also by the lack of access to educational, employment, and social opportunities essential for human development and full integration into society.

[8] Regulated by Order ISM/208/2022, dated March 10, which creates the Ethics Committee linked to social inclusion itineraries, on 20/05/2022 it issued a favorable report for the realization of the project that is the subject of the report.

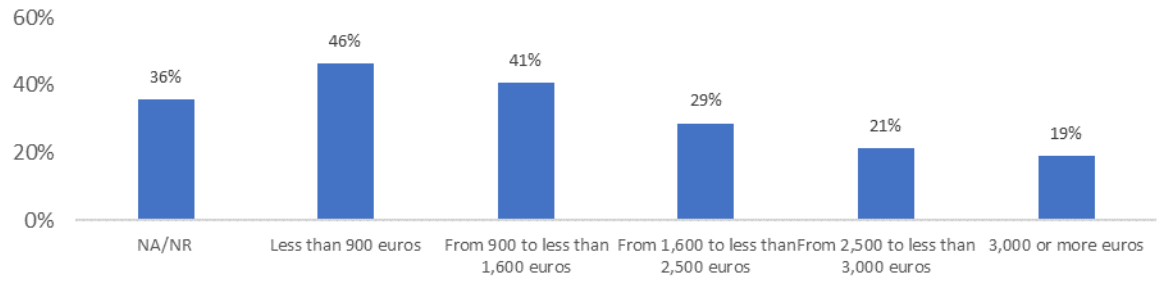
[9] On April 21, 2022, an Agreement was signed between the General State Administration, through the SGI and Cruz Roja Española for the implementation of a project for social inclusion within the framework of the Recovery, Transformation and Resilience Plan, which was published in the "Boletín Oficial del Estado" dated April 29, 2022 (BOE no. 102).

The report "Report on the World Social Situation 2016: Leaving no one behind: the imperative of inclusive development", prepared by the Department of Economic and Social Affairs (DESA) of the United Nations (UN), underlines the multifaceted nature of this problem and identifies various causes, including poverty, inequality, lack of employment, discrimination, and prejudice, as well as social, cultural, and political norms.

On the other hand, the 13rd Annual Report on poverty in Spain, prepared by the European Anti-Poverty Network (EAPN), reveals a worrying situation in the country. In 2022, approximately 26% of the population, or around 12.3 million people, are at risk of poverty and/or social exclusion. These findings indicate a persistent high rate of poverty and exclusion over the last decades, suggesting that this issue is deeply rooted in the social structure.

People at risk of social exclusion often lack basic personal and digital skills, exacerbating their vulnerability by limiting their access to government services, educational resources, job opportunities, and healthcare services. For example, in Spain, according to the National Institute of Statistics' Survey on Equipment and Use of Information and Communication Technologies in Households (INE, 2023), 46% of people with a net monthly income of less than 900 euros have low or insufficient digital skills—a percentage that increases among those with lower levels of education.

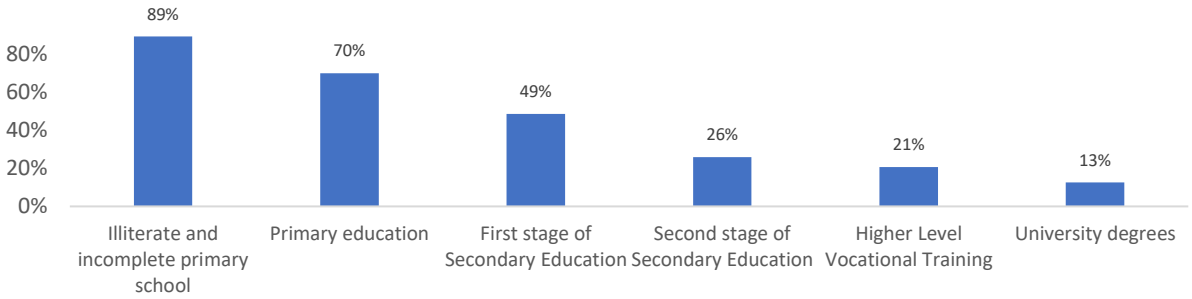
Figure 1: Percentage of people (16-74 years old) with low or lower digital skills according to net monthly household income[10]



Source: Survey on equipment and use of information and communication technologies in households, INE

[10] Digital competence is based on Eurostat's methodology, which only considers people who have used the internet in the last three months. It establishes four types of skills: no skills, low skills, basic skills, and advanced skills. These categories are built from the degree of ability in the fields of Information, Communication, Problem Solving and Computer Skills.

Figure 2: Percentage of people (16 to 74 years old) with low or lower digital skills according to completed studies



Source: Survey on equipment and use of information and communication technologies in households, INE

Regulatory framework associated with the project and the governance structure

The problem of social exclusion has been addressed by a wide range of public bodies. For example, at the European level, the Social Economy Action Plan was adopted in 2021, aiming to complement Member States' actions to provide quality social services in a cost-effective manner and integrate disadvantaged groups into the labor market and society at large. In the case of Spain, the reference document is the National Strategy for the Prevention and Fight against Poverty and Social Exclusion. This strategy reflects the Government of Spain´s commitment to maintain and develop the Welfare State to address social challenges, especially for the full social inclusion of the most vulnerable people.

Regarding diversity in access to digital technologies, the UN has emphasized the importance of closing this gap since the World Summit on the Information Society, highlighting the need for investments in digital infrastructures and skills. At the European level, two key initiatives have emerged to address this issue. Firstly, the Digital Education Action Plan 2021-2027 seeks to improve the quality and accessibility of digital education in Europe, by promoting a high-performance digital education ecosystem and enhancing digital skills. Secondly, Europe's Digital Decade aims to ensure that technology and innovation benefit everyone by setting specific targets in areas such as connectivity, digital skills, and digital public services.

On the other hand, the Government of Spain has contributed with initiatives such as Digital Spain 2026, a roadmap that seeks to promote the country's digital transformation to achieve equitable economic growth. The National Digital Skills Plan, part of the 2026 Digital Agenda and the Recovery, Transformation and Resilience Plan, aim to promote the training and digital inclusion of the population in general and workers in particular, with an investment of 3,750 million euros for the period 2021-2023.

Finally, all European and national regulations are aligned with the framework established in the 2030 Agenda and with the Sustainable Development Goals (SDGs). This pilot project aligns with European and national strategies to combat child poverty and social exclusion, as well as with the 2030 Agenda for Sustainable Development, specifically contributing to SDGs numbered 1, 3, 4, 8 and 10.

Due to the close relationship between economic poverty, low educational levels and the high digital-skill gap, Cruz Roja Española has developed a project aimed at strengthening the capacities, autonomy, and social inclusion of the most vulnerable individuals. The project also seeks to improve their socio-labor promotion, employability, and inclusion in the labor market.

The main scientific objective is to evaluate whether insertion itineraries, which focus primarily on motivation, activation, accompaniment, and guidance activities, as well as training in basic skills, digital literacy, and accredited training modules, have a positive impact on personal autonomy and employability.

The governance framework established for the proper implementation and evaluation of the project includes the following actors:

- **Cruz Roja Española (CRE),** as the organization responsible for the execution of the project. Cruz Roja Española seeks to transform situations that generate vulnerability by addressing three priority causes: (non-discrimination, equal opportunities, and the fight against climate change). The organization aims to create inclusive, healthy, sustainable, and safe environments. At the institution, people and their needs are prioritized, placing them at the center of the intervention in a transversal and coordinated manner across different areas of expertise to offer faster and more efficient responses.

- The **Ministry of Inclusion, Social Security and Migration** (MISSM) is the project funder and responsible for the RCT evaluation. For this reason, the General Secretariat for Inclusion assumes a series of commitments with Cruz Roja Española:
    - Provide the beneficiary entity with support for the design of the actions to be conducted, for the execution and monitoring of the object of the subsidy, as well as for the profiling of the potential participants of the pilot project.
    - Design the randomized controlled trial (RCT) methodology of the pilot project in coordination with the beneficiary entity. Likewise, conduct the evaluation of the project.
    - Ensure strict compliance with ethical considerations by obtaining the approval of 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.

Taking all the above into account, this report follows the following structure: s**ection 2** provides a **description of the project**, detailing the problem to be addressed, the specific intervention associated with take-up, and the target audience for the intervention. Next, **section 3** contains information related to the **evaluation design**, defining the Theory of Change linked to the project and the hypotheses, information sources, and indicators used. **Section 4** describes the **implementation of the intervention**, the analysis of the sample, randomization results, and the level of participation and attrition of the intervention. This section is followed by **section 5**, were the **results of the evaluation** are presented, along with a detailed analysis of the econometric analysis performed and the results

for each of the indicators used. Finally, the C**onclusions** of the project evaluation are described in **section 6**. Besides, in the appendix **Economic and Regulatory Management** additional information is provided on the management tools and governance of the pilot project.

Ethics Committee linked to the 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 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 oo 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 the present evaluation on July 24, 2023.

2 Description of the program and its context

This section describes the program that Cruz Roja Española implemented within the framework of the evaluation project. The target population and territorial framework are described, and the intervention is described in detail.

2.1 Introduction

The main objective of this project is to avoid the long-term dependency of recipients of aid belonging to the social protection system, supporting personal activation, and highlighting the importance of qualification to access the labor market, considering their own abilities.

The project aims to strengthen the capacities of the people who participate in it, promote their autonomy and social inclusion, as well as enhance their socio-labor promotion, employability, and inclusion in the labor market. To conduct it, actions have been implemented that respond to the motivation, activation, and personalized support of skills and digital literacy, as well as guidance and personalized accompaniment. Additionally, to all this, training modules have been taught, enabling participants to obtain professional certifications.

The existing literature on the effects of job training programs suggests a positive impact on employability and income, as analyzed by Card et al. (2010). In this context, the RCT study conducted by Baird, Engberg, and Gutierrez (2022) stands out as it analyzes the impact of a job training program in New Orleans, funded by the *Workforce Innovation Fund* of the United States Department of Labor. This study shows a significant impact of training, especially among the short-term unemployed, who experienced a notable increase in their employment opportunities and income. In addition, vocational training helps certify the skills of a potential worker, which facilitates the search for employment (Carranza et al., 2020 and Bassi and Nansamba, 2022) and can have a long-term impact on employment rates (Alfonsi et al., 2020).

In this context, empirical evidence suggests that incorporating soft *skills* training improves the results of professional training. Osman and Speer (2022) analyzed a training program implemented in Egypt that combined *soft skills* and *hard skills*, showing that it led to better job outcomes than trainings that focused only on hard or soft skills, even after 18 months. Similarly, soft skills training helped applicants maintain employment and long-term monthly wages in Colombia (Barrera-Osorio et al., 2023).

Regarding the effects of specialized training in the digital skills, the RCT research conducted by Todeschini, Alegre, and Moreno (2016) on Barcelona Activa's "Mobilitza't Mobile" program, which offered training in digital skills and fostered entrepreneurship, revealed a positive impact on employability of the participants. In addition, the study by Atkin et al. (2021) indicates that digital skills training, along with a positive job reference, increases monthly income and reduces unemployment. Finally, Choudhary and Bansal (2022) conducted a comprehensive review of digital training programs, highlighting various impacts closely related to the quality of services and program structure.

2.2 Target population and territorial scope

The project is aimed at people receiving the MIS or regional minimum income who are resident in the provinces of Albacete, León, Madrid, Málaga, Murcia and Pontevedra, aged 25 to 55 years, preferably unemployed women and/or people belonging to families with all their adult members unemployed or low work intensity. Initially, the selection of participants was made considering the following characteristics:

- Women in social difficulty, unemployed and/or families with all adult members unemployed or low work intensity.
- Educational level: secondary school or equivalent (Level 2 certificate of professionalism).
- Location: residents in urban, metropolitan, or rural areas of Málaga, León, Albacete, Pontevedra, Madrid and Murcia.

- People receiving the Minimum Income Scheme or the regional minimum income, for a minimum period of two years.
- Age: 25-55 years.
- With an interest in occupations related to the care economy.

Due to the difficulties in finding possible beneficiaries with an educational level of secondary school or equivalent who could access Level 2 certificates of professionalism related to the care economy, it was decided to extend the framework of action to people with a lower level of education and offer certificates of professionalism of both Level 1 and Level 2 in various fields.

Further details on the recruitment process are provided in **section 3.5** as part of the evaluation design.

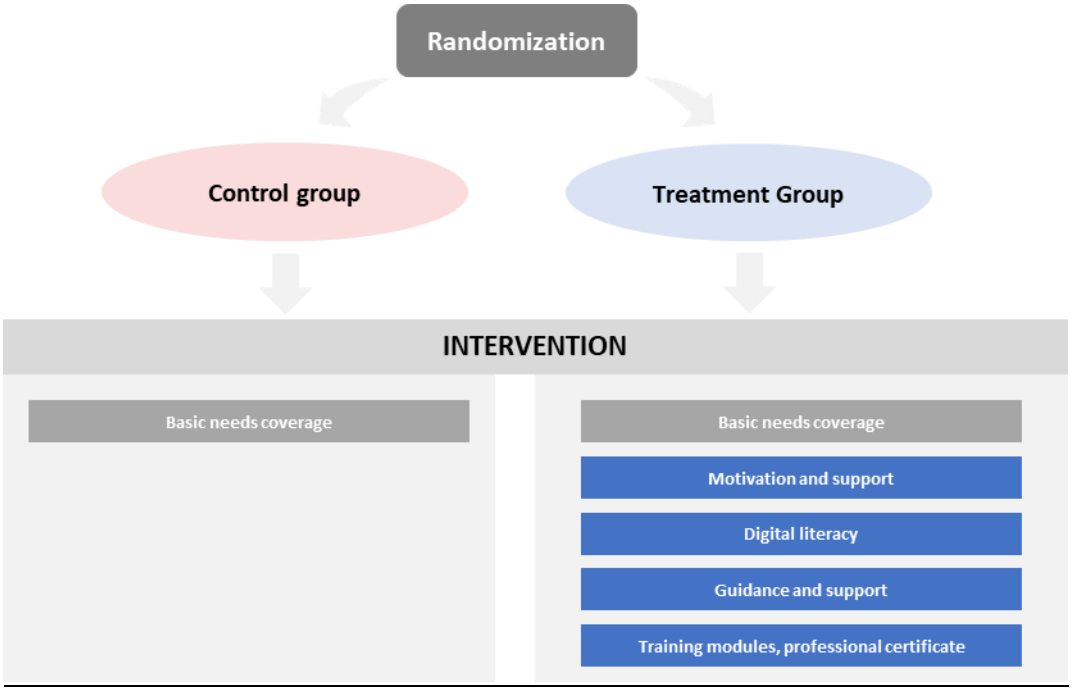
2.3 Description of the intervention

The project addresses long-term dependency in the social protection system, through actions aimed at activating the person and qualification for access to employment. To measure the impact of the actions, participants are randomly assigned to a control group and a treatment group.

All the people participating in the project receive actions from Cruz Roja actions aimed at urgently covering basic needs through the delivery of products, and/or economic aid, as well as actions that strengthen skills on the management of the domestic economy. This includes applying energy-saving strategies, basic aspects of financial economics, and receiving information and social guidance for accessing resources. Additionally, they participate in a basic motivational and orientation session, provided by telephone or in person, depending on their needs.

Additionally, the participants of the treatment group are offered motivation, activation, and support services throughout the project in a comprehensive manner, as well as basic skills, digital literacy, personalized guidance, and training modules for acquiring a certificate of professionalism.

Figure 3: Intervention scheme by experimental group



For those participants in the treatment group, a series of individualized intervention plans are designed through intensive accompaniment and support services. These resources can be adjusted to meet the specific needs of each participant. The areas of intervention in the treatment group are detailed below:

A. Motivation, activation, and accompaniment

These are actions specifically aimed at strengthening resilience capacities and improving emotional well-being. Psychosocial support measures are provided to participants, along with the promotion of meeting spaces to foster mutual help groups. Additionally, family reconciliation is encouraged so that people can conduct all the programmed activities.

B. Basic skills and digital literacy

The program includes tutorials and sessions designed to develop skills such as self-confidence, self-control, communication, compliance with rules and tasks, and mathematical reasoning, as well as digital learning. Digital training is also provided, with access to tablets and cyber classrooms, along with support for tasks such as using networks and job boards.

C. Personalized guidance and accompaniment

Access to public and private resources and organizations that can enhance participants' emotional well-being and autonomy is promoted through various individual and group activities. These efforts aim to strengthen the capacities of participants facing social difficulties by fostering their

empowerment, personal autonomy, and social inclusion. The program also focuses on improving their employability and facilitating their inclusion in the labor market.

In this phase, the focus is on collaborating with companies to enhance participants' confidence in actively seeking employment and improving their chances of success. This is achieved through a series of group sessions and/or face-to-face visits to the companies. The following sessions are included in this phase:

- **My compass**: Information and employment guidance sessions to learn about the labor market, local supply and demand, professional profiles, and minimum qualification requirements for various roles. This is achieved through the analysis of offers, participation in conferences, job fairs, webinars, etc.
- **What is my profession**: Actions to evaluate the starting point, adjust work expectations and design of professional objectives. These actions include self-assessment of skills, personal and professional competencies, and technological abilities, in contrast with the requirements of the labor market.
- **My personal brand**: Actions to raise awareness of the importance of the skills necessary for job searching and performance. These actions aim to enhance the skills that participants already possess or are in the process of acquiring, which they may find difficult to identify or may be unaware of. Additionally, these actions help participants discover their unique value proposition in the labor market.
- **Job search tools and techniques**: Actions aimed at developing and implementing proactive job search strategies with a competency-based and digital approach, tailored to the current context of selection processes and professional occupations. These actions include the preparation of various types of curricula (basic, competency-based, video CVs), self-applications, interview preparation, telephone contact techniques, networking, and the use of job portals and social networks for employment, among others.

D. Training modules and certificate of professionalism

A series of theoretical-practical training modules are also conducted, through which participants in this project receive training aimed at obtaining complete professional qualifications. These training modules correspond to the units of competence within professional qualifications. Additionally, they represent the minimum units of accreditation that can be accumulated in the process of accrediting professional competencies. In other words, the completion of several training modules can lead to the acquisition of a full Certificate of Professionalism.

Specifically, regarding Level 2 Certificates of Professionalism, in all provinces except León and Murcia, the Certificate of Professionalism in Social and Health Care for Dependent People in Social Institutions is offered. This program consists of 450 hours of training and prepares participants for the care of dependent individuals in residential settings, an activity that requires special dedication and coordinated teamwork with other professionals. In Murcia, the Certificate of Professionalism in Telecare Call Management is offered, comprising 310 hours of training.

Regarding the Level 1 Certificates of Professionalism, the Certificate of Professionalism in Cleaning of Surfaces and Furniture in Buildings and Premises (230 hours) is offered in all provinces[11] except Madrid and Albacete. In Madrid, the Certificate of Professionalism for Auxiliary Operators of Administrative and General Services (430 hours) is available. The Certificate of Auxiliary Warehouse Activities (210 hours) is offered in Albacete, Madrid, and Málaga. Additionally, the Certificate of Auxiliary Activities in Commerce (230 hours) is offered in Madrid, Murcia, and Albacete.

In addition, complementary training has been provided to ensure that all participants in the treatment group have access to a consistent number of training hours. Some of the complementary training courses offered include Occupational risk prevention (30 hours), Driving forklifts (30 hours), School cleaning (60 hours), Cash and replacement (60 hours), Basic office automation (50 hours), First aid (30 hours).

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 to design an evaluation that enables us to understand the causal relationship between the intervention and its final objective, develops a Theory of Change. The Theory of Change schematizes 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. It explains the relationships between these elements, the assumptions underlying them, and outlines measures or outcome indicators.

[11] In León, no Certificate of Professionalism has been conducted due to a lack of participants interested in starting the training.

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 for the treatment to be properly implemented. Next, this theory identifies what effect(s) are expected to happen, depending 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 final results.

The development of a Theory of Change is a fundamental element for 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 have been obtained, 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 a greater understanding of the possible generalization or not of the results to different contexts.

The identified problem for the target population within the project framework is that the longer individuals remain in the social protection system, the more challenging it becomes to improve their personal autonomy and employability. This phenomenon presents a considerable obstacle to socio-economic integration, as it suggests that the resources and opportunities available are not being effectively utilized to foster the personal and professional development of those involved in the system.

This need or problem defines the different areas of action for the project and the activities associated with each of them. Specifically, four major blocks are defined, presented as inputs or activities in the intervention: First, motivation, activation and accompaniment block address the need to provide inspiration and support to initiate and maintain progress towards the objectives set by the participants. The second block focuses on the development of basic competencies and digital literacy, providing the fundamental skills needed in today's work environment. Then, in the personalized guidance and support block, assistance is tailored to the individual needs of each participant, offering customized support. Finally, the fourth block offers specialized training modules and the opportunity to obtain a Certificate of Professionalism, ensuring comprehensive and recognized training in the chosen field.

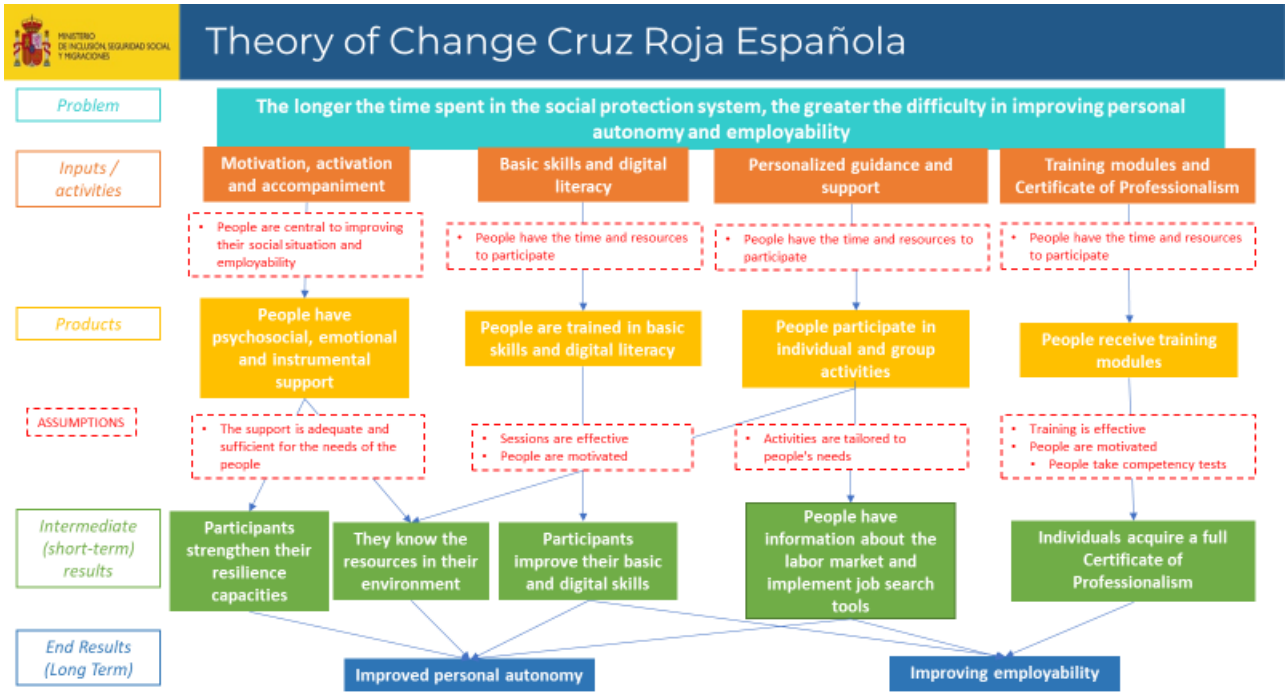
All these resources and activities resulted in a series of outputs. To achieve this, certain assumptions must first be met: individuals must play a central role in improving their social situation and employability, and they must also have the time and resources necessary to participate. By measuring the outputs obtained, it is possible to identify whether the beneficiaries have received the activities or inputs and to what extent. Adequate receipt of the resources and activities is essential for the program to achieve its expected intermediate and final results. If the beneficiaries do not effectively

receive the program, it is difficult to observe improvements in poverty reduction and social inclusion indicators. In this project, outputs are defined as the effect that inputs have on the participants. Thus, categorizing the products by blocks, the first product obtained has its origin in motivation, activation and accompaniment and allows people to have psychosocial, emotional, and instrumental support. The second block, relating to basic skills and digital literacy, is produced by people trained in these skills. In terms of guidance and personalized accompaniment, this block produces people who participate in individual and group activities. Finally, regarding the fourth block, training modules and certificate of professionalism, the product is made up of the people who receive the training modules.

Again, to achieve intermediate results, which are direct outcomes of the intervention, certain assumptions must be met. These assumptions are, in accordance with the blocks already defined, (i) the support is adequate and sufficient for the needs of the people; (ii) the sessions are effective, and the people are motivated; (iii) the activities are adapted to the needs of the people; and (iv) the training is effective, people are motivated, and people take competency tests. In this sense, the expected results in the short term are participants strengthen their resilience capacities, know the resources of their environment, improve their basic and digital skills, obtain information about the labor market, and implement job search tools, and acquire a complete Certificate of Professionalism.

Because of the above, the final outcomes of the intervention, achieved in the long term, are based on improvements in these intermediate indicators. This ultimately leads to enhanced personal autonomy and employability. The following figure illustrates this causal sequence of actions, starting from the identified needs or problems and outlining the activities and resources necessary to achieve the expected changes in the participants.

Figure 4: Theory of Change



3.2 Hypothesis

The main objective of the itinerary is to prevent long-term dependency in the social protection system. It aims to support the activation of individuals and emphasize the importance of qualification for accessing employment, considering their personal abilities.

As detailed in the Theory of Change, this project encompasses a multitude of areas, ranging from improving emotional health to enhancing digital skills and the employment situation of the participants. Consequently, when evaluating the model, various hypotheses are formulated to compare the results of the treatment group with those of the control group in each of these areas, using specific indicators for each. This multidimensional approach allows for a comprehensive assessment of the intervention's impact on the lives of the beneficiaries and enables a more complete understanding of its effectiveness across different dimensions.

The hypotheses to be tested in relation to each of the blocks of results are presented below. The following sections will describe the sources of information for the indicators used in each scenario.

1. Improved autonomy of participants

Two main hypotheses are put forward regarding the effect of the comprehensive program: the first one suggests that the program strengthens the resilience capacities of the participants, while the second hypothesis proposes that the program improves the basic skills of the participants. In addition, this study formulates two secondary hypotheses about the impact of the program: the first secondary hypothesis postulates that the program increases participants' knowledge about the resources

available in their environment, and the other secondary hypothesis suggests that the program improves their digital skills.

2. Improving employability

Regarding the impact on employability, the study formulates two main hypotheses. The first hypothesis postulates that the intervention improves the employability of the participants. The second hypothesis suggests that the intervention increases participants' knowledge of the labor market and facilitates the use of job search tools.

3.3 Sources of information

The main source of information used to assess the impact of the project is a survey administered to all project participants. This survey consists of five questionnaires, which collect the following self-reported information:

- **Personal situation questionnaire:** Personal situation and sociodemographic characteristics.
- **Labor Questionnaire:** Employment situation.
- **Health Questionnaire:** State of health.
- **Social Questionnaire:** Social relationships.
- **Competencies Questionnaire:** Competencies and skills.
- **Questionnaire Digitalization:** Availability and use of technology.

The survey is administered at two time points: **before the start of the project** (baseline survey), **after its conclusion** (endline survey). The survey is completed either in person at the facilities of Cruz Roja Española or online. During the execution of the survey, the participants have the support of Cruz Roja Española technicians, and coordinators of the pilot project.

The main objective of the survey is to evaluate, through the questionnaires, any improvement in participants at various levels, including personal, technological, and professional.

- **On a personal level**, the survey evaluates participants' self-esteem, their knowledge of the use of the environment and its resources, their understanding of their socio-labor rights, and their economic empowerment.
- **At the technological level**, the survey evaluates participants' access to and use of digital resources for education, health, employment, and social services. It also assesses their strategic use of mobile phones or other electronic devices, their management of contact networks, their use of social networks and cybersecurity, and finally, their ability to search for job offers.
- **At the professional level**, the survey evaluates participants' active job search efforts, their basic and transversal skills, their mobility, and ultimately, their professional qualifications.

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. In this way, and based on these hypotheses, the study categorizes the indicators as follows: those that lead to an improvement in personal autonomy and those that enhance employability. Those indicators are:

Improved personal autonomy

To test this hypothesis, the following indicators are found:

Self-perception of the risk of poor psychological health: This composite indicator explores how each participant perceives their own psychological health. It is calculated based on participants' responses to twelve questions in this area, with values ranging from 0 to 3, where higher values indicate worse levels of psychological health. For the calculation of this indicator, the variables are recoded, assigning a value of 0 to the two lowest responses (0 and 1) and a value of 1 to the highest responses (2 and 3). Consequently, the composite indicator ranges from 0 to 12 points, with higher values indicating a greater risk of poor psychological health.

In addition, an aggregate indicator of self-perception of the risk of poor psychological health is calculated, retaining the original values of each of the variables that compose it (which, as mentioned above, range from 0 to 3). Consequently, this aggregate indicator can take values from 0 to 36.

Self-perception of self-confidence and self-control: This composite indicator captures the self-reported confidence and self-control of the participants. The indicator ranges from 1 to 5, with higher values indicating a better self-perception of self-confidence and self-control.

Self-perception of frustration tolerance: This composite indicator captures the participants' self-reported frustration tolerance. It ranges from 1 to 5, with higher values indicating greater tolerance to frustration.

Identification of the problem when looking for a job: This indicator is based on a categorical variable that measures the ability to identify problems when looking for a job, on a scale from 1 to 5. A higher value indicates a greater ability to identify these problems.

Improvement of one's own organization: This composite indicator is calculated as an average of categorical variables related to autonomy, prioritization, and time management. It ranges from 1 to 5, with higher values representing better organization.

Improvement in communication: This indicator is based on a categorical variable that ranges from 1 to 5, with higher values indicating that the individual has fewer problems expressing themselves.

Knowledge of resources: This composite indicator is composed of ten variables referring to the resources of the territory available to the participants. It ranges from 0 to 10, representing the number of resources known to the participants.

Self-perception of digital competencies: This composite indicator is calculated as the average of thirteen categorical variables from the surveys conducted, relating to the use of digital tools. It ranges from 1 to 4, with higher values indicating a better self-perception of digital skills.

Improving employability

Currently self-completed employment status: This binary indicator represents the self-reported employment status, where 1 represents that the individual is employed at the time of completing the questionnaire.

Job interviews conducted: This indicator captures the number of job interviews participants have attended in the four weeks prior to completing the questionnaire.

Self-perceived probability of finding a job: This indicator is based on a categorical variable that ranges from 1 to 4, with higher values indicating a greater self-perceived probability of finding a job within six months after completing the questionnaire.

Hours per week spent looking for a job: This indicator reflects the number of hours per week that participants have spent looking for a job.

Methods used to find a job: This composite indicator is made up of the sum of eleven binary variables that indicate whether a specific method has been used by participants to find a job. It ranges from 0 to 11, representing the total number of different methods used by participants in the four weeks prior to completing the questionnaire.

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 intervention beneficiaries

The target population consists of unemployed adults and/or families with all members either unemployed or experiencing low work intensity, aged between 25 and 55 years old, residing in metropolitan or rural urban areas of Albacete, León, Madrid, Murcia, Málaga or Pontevedra. These individuals are recipients of the Minimum Income Scheme (MIS) or any of the regional minimum incomes. CRE identified and recruited participants by telephone, utilizing both its databases and a randomly ordered list of MIS beneficiaries provided by the General Secretariat for Inclusion (SGI) to prioritize contact with potential project beneficiaries. Informed consent was obtained after random assignment and prior to the completion of baseline questionnaires.

Informed consent

One of the fundamental ethical principles of research involving human beings (respect for people) 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 person, and the request and registration of their consent to participate. Consent should begin with a comprehensible presentation of key information that will help the person 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 of 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 the participants are minimal and the informed consent is very complex to obtain or would harm 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

Once the recruitment process is completed, participants who agree to participate in the project are assigned to either the sample holder or reserve groups. Within the sample holder group, participants are further assigned to the treatment and control groups. The assignment to these groups is conducted randomly using a stratified procedure that considers the participant's province of origin and their self-reported educational status, specifically whether they have completed ESO or an equivalent qualification.

The stratification process considers each province separately, with two exceptions due to their geographical dispersion: León, where two independent territories are considered—city of León –and El Bierzo; and Albacete, where three independent territories are considered—city of Albacete, Almansa, and Hellín. Within each province, separate randomization is performed for registries with and without ESO, except in Almansa and Hellín, where this distinction is not made due to the limited sample size. This results in a total of 16 strata.

Of the total number of people recruited, participants are randomized to determine who will be part of the titular sample and who will be part of the reserve sample. Participants in the titular sample are then randomly assigned to either the treatment group or the control group. For the reserve sample, a hierarchy of substitution is established by stratum. When a participant leaves the titular sample, they are replaced by the first available reserve from the same stratum, who is assigned to the same group (control or treatment) as the person they are replacing.

Figure 5: Sample design

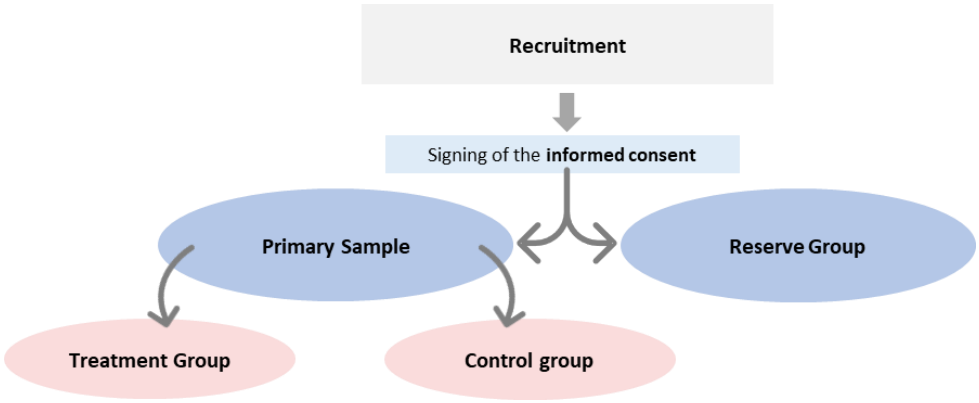
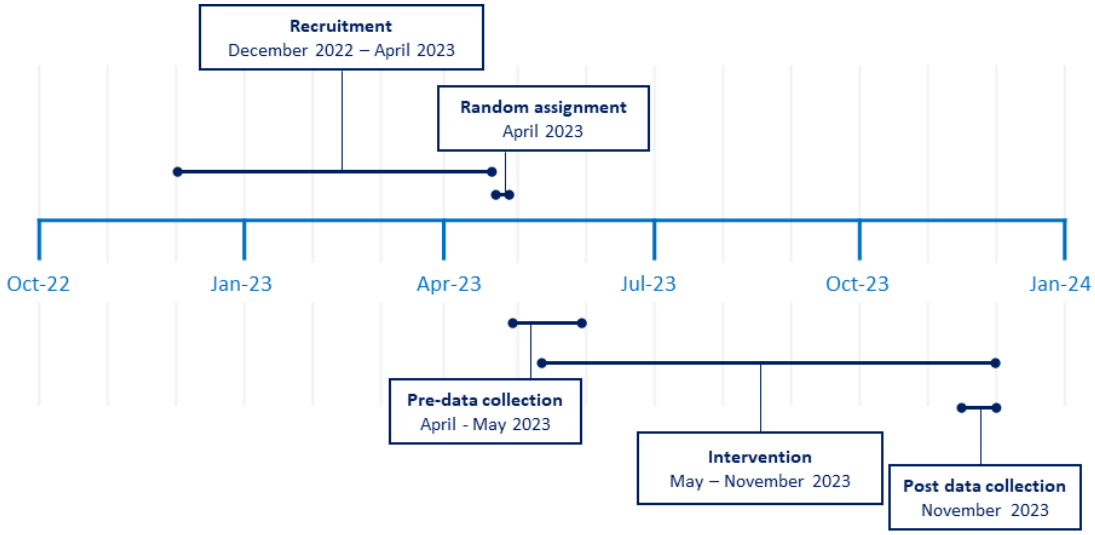


Figure 6 illustrates the project's timeline. The recruitment process lasted from December 2022 to April 2023. At the end of this period, random assignment was conducted, and data collection prior to the intervention took place, lasting until May of the same year.

The intervention itself was conducted from May and November 2023. Finally, the participants´ final survey was administered once the intervention concluded.

Figure 6: Evaluation timeline



4 Description of the implementation of the intervention

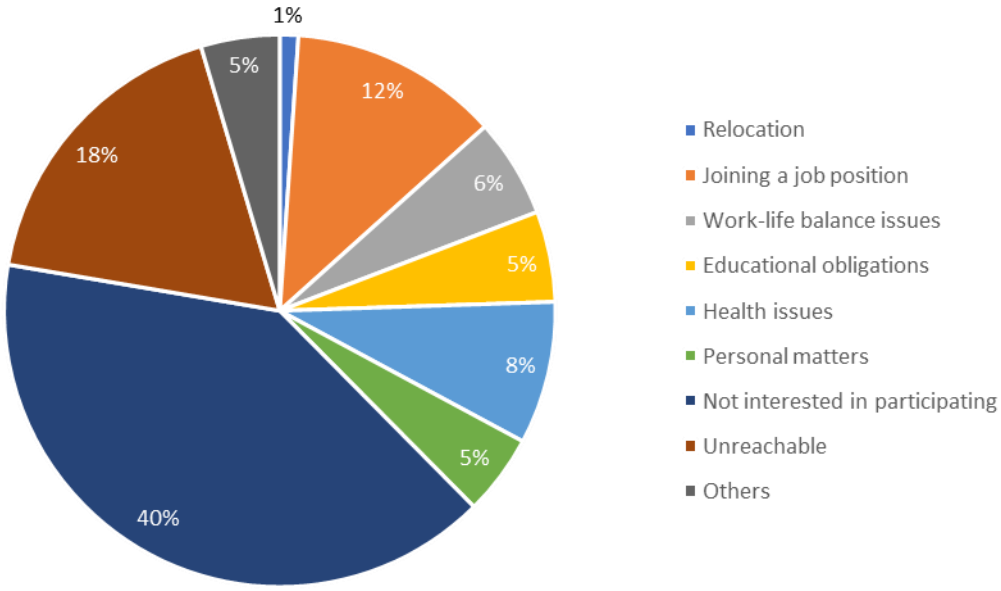
This section describes the practical aspects of how the intervention was implemented as part of the evaluation design. It describes the results of the participant recruitment process and other relevant logistical aspects to contextualize the results of the evaluation.

4.1 Sample description

During the recruitment process, significant difficulties were encountered in finding enough participants who met the project's requirements. This led to a relaxation of the profile criteria for potential participants, specifically eliminating the requirement for an educational level of ESO or equivalent, as reflected in **section 2.2**.

CRE contacted a total of 16,626 people by telephone. Among those who met all the requirements, 1,464 individuals expressed interest in participating in the project. Of these, 1,364 were randomly selected to be part of the main sample (681 in the control group and 683 in the treatment group), and 100 were assigned to the reserve sample. Out of the total number of people recruited, 744 signed the informed consent, and data is available for 695 participants (373 from the treatment group and 322 from the control group). The following graph details the reasons why some of the recruited individuals ultimately decided not to participate in the project.

Figure 7: Reason for non-participation



It should be noted that 40% of the participants, despite initially expressing their interest in participating, ultimately decline to do so.

Final Assessment Sample Features

Table 1 presents the descriptive statistics of the variables related to the evaluation, based on the information collected at baseline for 695 participants. This table reports participants' sociodemographic characteristics, as well as headline indicator information prior to the start of the intervention. The table includes six columns that display the mean, standard deviation, minimum, maximum, and number of observations for each variable.

The first block of **Table 1** shows that 54% of the participants (373) belong to the treatment group, while 46% (322) belong to the control group. Regarding age distribution, 43% of the sample is between 41 and 50 years old, 29% are between 31 and 40 years old, 24% are 51 years old or older, and 3% are 30 years old or younger. The average age of the sample is 44 years old.

79% of the participants are women, 85% have Spanish nationality[12]. Geographically, 27% of the participants are in the Region of Murcia, 22% in the Community of Madrid, 19% in the province of Málaga, 12% in the province of Pontevedra, 12% in the province of Albacete, and 8% in the province of León. Regarding the level of knowledge of Spanish, the average participant has a level of Spanish that falls between the categories of advanced knowledge and mother tongue. In terms of education, 45% reported having compulsory secondary education (ESO) or an equivalent degree at the time of

[12] This percentage includes participants who have only Spanish nationality as well as those who have dual nationality that includes Spanish nationality.

recruitment. At baseline, 27% of participants reported having a grade beyond compulsory secondary education, 18% reported having completed secondary school, 21% reported having incomplete secondary school, 21% completed primary school, and 13% had either not completed primary school or had less education.

Regarding family composition, 68% of the participants reported being part of families with children, with 46% of the sample being part of a single-parent family. In total, 46% of participants reported having individuals under their care (either minors or adults) who sometimes cause challenges with work-life balance, while 16% reported that having individuals under their care presents a significant problem for reconciling work and family responsibilities. Finally, 31% of the sample stated that they do not have individuals under their care.

As for the result indicators, there are two blocks. The first block refers to the personal autonomy of the participants, and the second describes their employability. The first two indicators correspond to the subjective perception that participants have about their psychological health status in recent weeks. The objective is to assess the prevalence of risk for poor mental health. To do this, the frequency with which participants have experienced 12 types of problems or situations is categorically assessed[13] in both indicators, a higher value indicates a higher risk of poor mental health. The first indicator has a standard deviation of 4 and an average of 5. The second indicator has a standard deviation of 7.5 and a mean of 16.6.

Regarding self-perception of self-confidence and self-control, the average level reported by participants is nearly 3.8. When it comes to how they perceive their level of tolerance to frustration, the average participant feels quite capable (3.9) of overcoming difficulties encountered and views failure as a challenge.

In relation to the ability to identify the problems faced when looking for a job, the average score among participants is 3.5. Regarding their own organizational skills, participants in the sample have an average score of 3.9, where a higher value indicates better organizational ability. Similarly, participants exhibit an average communication ability score of 3.8 on a scale of 1 to 5, where a higher value indicates that the individual has fewer problems expressing themselves.

The resource knowledge indicator pertains to the participants' awareness of the resources available in their territory. These resources include social services, benefits, information, employment offices, among others. On average, participants are aware of about seven services offered in their territory. Finally, regarding the self-perception of digital competencies, participants in the sample generally feel between somewhat and capable (2.8) of using digital tools.

[13] The questions and calculation of the indicator are based on the perception of adult mental health captured by the INE in the 2017 National Health Survey.

Regarding employability indicators, only 17% of the sample reported being employed. In the last 4 weeks, pilot participants had between 0 and 1 interviews, with 76% of people having no interviews. This resulted in an average of 0.6 interviews and a standard deviation of 1.5.

When asked about the participants' perceived probability of finding a job in the next 6 months, before starting the intervention, the average participant rated it between unlikely and probable (2.6). It should be noted that this variable was measured on a scale from 1 to 4 where a higher value indicates a higher level of perceived probability. The average participant reported spending 5.7 hours per week looking for work. In the past 4 weeks, participants used an average of 1.6 different methods to search for a job out of a total of 11.

Table 1: Descriptive statistics of the sample

Variable	Obs.	Mean	Stand. Dev.	Min.	Max.
Treatment	695	0.54	0.50	0	1
Sociodemographic variables					
Location: Albacete	695	0.12	0.33	0	1
Location: León	695	0.08	0.27	0	1
Location: Madrid	695	0.22	0.42	0	1
Location: Málaga	695	0.19	0.39	0	1
Location: Murcia	695	0.27	0.44	0	1
Location: Pontevedra	695	0.12	0.32	0	1
People who have ESO	692	0.45	0.50	0	1
Primary not completed or less	692	0.13	0.34	0	1
Completed Primary	692	0.21	0.41	0	1
Not completed Compulsory Secondary school	692	0.21	0.41	0	1
Completed Compulsory Secondary school	692	0.18	0.39	0	1
Education beyond compulsory secondary school	692	0.27	0.44	0	1
Female	693	0.79	0.41	0	1
Age less than or equal to 30	672	0.03	0.17	0	1
Age between 31-40	672	0.29	0.46	0	1
Age between 41-50	672	0.43	0.50	0	1
Age 51 or older	672	0.24	0.43	0	1
Spanish nationality	692	0.85	0.36	0	1
Level of knowledge of Spanish	692	4.57	0.87	1	5
Families with children	688	0.68	0.47	0	1
Single-parent families	688	0.46	0.50	0	1

Variable	Obs.	Mean	Stand. Dev.	Min.	Max.
People with family responsibilities that sometimes bring problems with work-life balance	692	0.46	0.50	0	1
People with family responsibilities that involve work-life balance problems	692	0.16	0.37	0	1
No people under responsibility	692	0.31	0.46	0	1
Performance indicators					
Self-perception of risk of poor psychological health	692	4.99	3.96	0	12
Self-perception of risk of aggregated psychological ill health	692	16.57	7.49	0	36
Self-perception of self-confidence and self-control	682	3.76	0.92	1	5
Self-perception of frustration tolerance	682	3.86	0.83	1	5
Problem identification	682	3.45	1.26	1	5
Independent organization	682	3.91	0.77	1.33	5
Communication	682	3.83	1.17	1	5
Knowledge of resources	689	6.83	2.33	0	10
Self-perception of digital skills	646	2.75	0.96	1	4
Self-reported employment status	692	0.17	0.38	0	1
Job interviews conducted	453	0.60	1.50	0	11
Self-perceived probability of finding a job	640	2.55	0.95	1	4
Weekly hours spent on job search	447	5.71	6.43	0	40
Methods used for job search	692	1.58	1.73	0	10

4.2 Random Assignment Results

Once the sample is defined, participants are randomly assigned to either the treatment group or the control group, as explained in **section 3.5.** The following table shows the results of the random assignment, detailing the number of participants assigned to each group and breaking down this information according to the different stratification variables.

Table 2: Results of the random assignment

	PRIMARY SAMPLE									RESERVES			PRIMARY SAMPLE+RESERVES		
	THAT			WITHOUT THAT			THAT+WITHOUT THAT								
TERRITORY	CG	TG	TOTAL	CG	TG	TOTAL	CG	TG	TOTAL	ESO	NO ESO	ESO + NO ESO	ESO	NO ESO	ESO + NO ESO
1. Albacete	18	17	35	46	45	91	64	62	126	0	0	0	35	91	126
2. Almansa	-	-	-	-	-	-	6	7	13	0	0	0	-	-	13
3. Hellín	-	-	-	-	-	-	9	9	18	0	0	0	-	-	18
4. León	23	25	48	10	9	19	33	34	67	0	6	6	48	25	73
5. El Bierzo	10	11	21	38	38	76	48	49	97	0	9	9	21	85	106
6. Madrid	67	66	133	109	109	218	176	175	351	0	34	34	133	252	385
7. Málaga	61	61	122	71	71	142	132	132	264	0	24	24	122	166	288
8. Murcia	77	78	155	54	54	108	131	132	263	0	24	24	155	132	287
9. Pontevedra	36	37	73	46	46	92	82	83	165	0	3	3	73	95	168
Total	292	295	587	374	372	746	681	683	1.364	0	100	100	587	846	1,464

To verify that the random assignment results in statistically comparable control and treatment groups, an equilibrium test is conducted to ensure that, on average, the observable characteristics of participants in both groups are the same. **Table 3** presents the results of the balance contrasts between the control group and the treatment group using data collected through a survey conducted before initiating the intervention (baseline). It shows the sociodemographic and outcome variables corresponding to the project participants. Specifically, the table reports the number of observations, the total number of strata, the mean and variance for each group, and the p-value of the Student's t-test that tests the hypothesis of equality of means. The lower the p-value, the more confidently one can reject the hypothesis that the mean of the variable in both groups is equal.

It is observed that most of the sociodemographic variables are balanced between the control group and the treatment group. However, there are some important exceptions, such as the number of single-parent families, the Spanish nationality of the participants, and the level of knowledge of Spanish among the participants. The percentage of single-parent families is 42% in the control group and 50% in the treatment group. This difference is statistically significant at the 1% level. Regarding participants with Spanish nationality, 87% of the control group and 83% of the treatment group have this nationality. This difference is significant at the 10% level, as is the difference in levels of knowledge of Spanish between the two groups. Despite these differences, both groups have a level of knowledge of Spanish that falls between advanced and mother tongue.

In terms of outcome indicators, the control and treatment groups are balanced in most cases. However, exceptions are found in the indicators of communication, knowledge of resources, self-reported employment status, and self-perceived probability of finding employment in the next 6 months. For communication, the mean value of the treatment group (3.89) is slightly higher than that of the control group (3.76), with the difference being statistically significant at the 10% level. The difference is more pronounced in the indicators of knowledge of resources available in their territory

(7.1 for the treatment group compared to 6.54 for the control group) and self-reported employment status (0.19 for the treatment group compared to 0.16 for the control group), both of which are statistically significant at the 5% level. Finally, differences are also observed in the categorical variable of self-perceived probability of finding a job in the next 6 months. On average, the treatment group perceives a higher probability (2.63) than the control group (2.46) of finding a job, with this difference being significant at the 1% level.

It should be noted that, although there are several statistically different variables, this proportion is within what is expected. The assignment of participants to the experimental groups has been randomized, and no patterns of significant differences were found between the treatment group and the control group. Due to sociodemographic differences, those factors that may influence the impact of the interventions will be included as controls. With respect to the differences in the outcome variables, these suggest that there are relevant imbalances between the treatment and control groups, making them not perfectly comparable. For this reason, the dependent variable measured during the baseline will be included in the analysis to account for the fact that the groups did not start from the same level.

Table 3: Equilibrium contrasts between experimental groups

Variable	Control (1) N/Clusters	Control (1) Mean/(Var)	Processing (2) N/Clusters	Processing (2) Mean/(Var)	Pairwise t-test (1)-(2) N/Clusters	Pairwise t-test (1)-(2) P-value
Sociodemographic variables						
Location: Albacete	322 15	0.10 (2.12)	373 15	0.14 (3.14)	695 15	0.28
Location: León	322 15	0.08 (1.65)	373 15	0.08 (2.03)	695 15	0.73
Location: Madrid	322 15	0.21 (3.79)	373 15	0.24 (4.84)	695 15	0.12
Location: Málaga	322 15	0.20 (3.66)	373 15	0.19 (4.06)	695 15	0.65
Location: Murcia	322 15	0.28 (4.66)	373 15	0.25 (5.02)	695 15	0.18
Location: Pontevedra	322 15	0.13 (2.61)	373 15	0.10 (2.44)	695 15	0.36
People who have ESO	320 15	0.44 (5.63)	372 15	0.46 (6.60)	692 15	0.63
Primary not completed or less	320 15	0.15 (2.91)	372 15	0.11 (2.61)	692 15	0.21
Completed Primary	320 15	0.21 (3.78)	372 15	0.21 (4.44)	692 15	0.91
Not completed Compulsory	320	0.20	372	0.22	692	0.52

Variable	N/Clusters	Control (1) Mean/(Var)	N/Clusters	Processing (2) Mean/(Var)	N/Clusters	Pairwise t-test (1)-(2) P-value
Secondary school	15	(3.66)	15	(4.53)	15	
Completed Compulsory Secondary school	320 15	0.19 (3.48)	372 15	0.18 (3.88)	692 15	0.82
Education beyond Compulsory secondary school	320 15	0.25 (4.32)	372 15	0.28 (5.38)	692 15	0.33
Female	321 15	0.78 (3.91)	372 15	0.79 (4.36)	693 15	0.64
Age less than or equal to 30	310 15	0.03 (0.62)	362 15	0.03 (0.83)	672 15	0.73
Age between 31-40	310 15	0.31 (4.71)	362 15	0.28 (5.26)	672 15	0.25
Age between 41-50	310 15	0.41 (5.34)	362 15	0.45 (6.41)	672 15	0.32
Age 51 or older	310 15	0.26 (4.24)	362 15	0.23 (4.57)	672 15	0.50
Spanish nationality	321 15	0.87 (2.61)	371 15	0.83 (3.69)	692 15	0.05*
Level of knowledge of Spanish	321 15	4.54 (18.55)	371 15	4.60 (19.10)	692 15	0.05*
Single-parent families	320 15	0.42 (5.57)	368 15	0.50 (6.57)	688 15	0.01***
Situation of people with Family Responsibility	302 15	1.82 (10.88)	344 15	1.87 (11.42)	646 15	0.36
Performance indicators						
Self-perception of risk of poor psychological health	321 15	5.21 (360.69)	371 15	4.79 (412.93)	692 15	0.17
Self-perception of risk of aggregate psychological ill health	321 15	16.96 (1.268.75)	371 15	16.23 (1.491.29)	692 15	0.20
Self-perception of Self-confidence and self-control	315 15	3.72 (18.57)	367 15	3.79 (22.84)	682 15	0.50
Self-perception of the Frustration tolerance	315 15	3.86 (15.19)	367 15	3.85 (18.48)	682 15	0.87

Variable	Control (1) N/Clusters	Control (1) Mean/(Var)	Processing (2) N/Clusters	Processing (2) Mean/(Var)	Pairwise t-test (1)-(2) N/Clusters	Pairwise t-test (1)-(2) P-value
Problem identification	315 15	3.43 (35.65)	367 15	3.46 (41.23)	682 15	0.74
Independent organization	315 15	3.88 (13.41)	367 15	3.95 (15.71)	682 15	0.46
Communication	315 15	3.76 (31.98)	367 15	3.89 (34.63)	682 15	0.06*
Knowledge of resources	321 15	6.54 (134.13)	368 15	7.10 (128.69)	689 15	0.04**
Self-perception of digital skills	296 15	2.75 (19.49)	350 15	2.74 (23.18)	646 15	0.94
Self-reported employment status	321 15	0.16 (3.02)	371 15	0.19 (4.10)	692 15	0.04**
Job interviews conducted	205 15	0.71 (39.75)	248 15	0.52 (32.28)	453 15	0.12
Self-perceived probability of finding a job	295 15	2.46 (19.09)	345 15	2.63 (21.75)	640 15	0.01***
Weekly hours spent on job search	203 14	5.77 (623.82)	244 15	5.66 (736.48)	447 15	0.84
Methods used for job search	321 15	1.54 (65.84)	371 15	1.62 (81.24)	692 15	0.42

Note: Significance levels: *p<0.1, **p<0.05 and ***p<0.01. Standard errors grouped by stratum have been used.

4.3 Degree of participation and attrition by groups

Participation in the program and response to the initial and final surveys are voluntary. It is important to analyze the degree of participation in the program, as the estimation of results will refer to the average effects of offering the program, given the degree of participation. For example, if participation in treatment activities is low, the treatment and control groups will appear very similar, making it harder to detect an effect. Additionally, this section examines whether the non-completion of the final survey by some participants reduces the comparability of the treatment and control groups after the intervention. This is particularly relevant if the response rate differs between groups or according to the demographic characteristics of participants in each group.

Degree of participation

Table 4 shows the evolution in the total number of pilot participants from the end of recruitment in March 2023 to the conclusion of information collection in the final survey in November 2023. As mentioned earlier, the CRE team successfully recruited a total of 1,464 people. Of these, 100

individuals were classified as "reserves," defined as a group of people who would be contacted and included in the project in the case of withdrawals from the group of primary participants at the beginning of the intervention. Once the randomization was completed, 9 new participants joined the pilot in the territory of Madrid and were classified as primary participants. The CRE team was responsible for scheduling participants to sign informed consent and fill out baseline questionnaires. During this process, all reserves became part of the primary sample. Out of the 1,473 people in the total sample, 778 individuals ultimately refused to participate in the pilot. Among the remaining participants, only 53% of the treatment group and 47% of the control group completed the final questionnaire, resulting in sample attrition rates of 47% and 53%, respectively. Taking the 695 people who started the intervention as a reference, the attrition rates are 6% for the treatment group and 3% for the control group.

Table 4: Sample of the evaluation

Group	Initial Sample	Sample after randomization	Fill out the initial questionnaire	Project completed	Fill out the final questionnaire
Treatment	683	373	366	171	352
	50%	54%	54%	37%	53%
Control	681	322	315	295	312
	50%	46%	46%	63%	47%
N	1,364	695	681	466	664
Reserves[14]	100				

Attrition by groups

To assess whether the difference in the number of responses to the final survey between the treatment and control groups is statistically significant, regressions were estimated using a binary variable indicating whether individuals did not respond to the final questionnaire as the dependent variable. Similar estimates were also made using sociodemographic variables to determine whether non-respondents to the final survey differed in any characteristics between the experimental groups. **Table 5** presents the results of this analysis for a selection of variables whose interaction has a statistically significant impact on the variable of interest.

Table 5: Relationships between responses, treatment, and other variables

	People who did not respond to the post-test							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	0.03*	0.02	0.03*	0.02	0.01	0.04***	0.03*	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)

[14] The information relating to reserves is included from the second column in the categories of control group and treatment group depending on the assigned group corresponding to the participant they replaced.

People who did not respond to the post-test

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Location: Albacete		-0.03*						
		(0.02)						
Treatment x Location: Albacete		0.04*						
		(0.02)						
Location: León			-0.03*					
			(0.02)					
Treatment x Location: León			-0.03*					
			(0.01)					
Location: Madrid				-0.02				
				(0.02)				
Treatment x Location: Madrid				0.02				
				(0.02)				
Location: Málaga					-0.04**			
					(0.02)			
Treatment x Location: Málaga					0.06***			
					(0.01)			
Location: Murcia						0.09***		
						(0.00)		
Treatment x Location: Murcia						-0.06***		
						(0.02)		
Location: Pontevedra							-0.04*	
							(0.02)	
Treatment x Location: Pontevedra							-0.03*	
							(0.01)	
Age between 31-40								-0.00
								(0.01)
Treatment x Age between 31-40								-0.04**
								(0.02)
Constant	0.03***	0.03*	0.03*	0.04*	0.04**	0.00	0.04*	0.03*
	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.00)	(0.02)	(0.02)
N	695	695	695	695	695	695	695	672

Note: Standard errors in parentheses. The stratum variable has been absorbed and standard errors grouped at the stratum level have been used. Levels of significance: *p<0.1, **p<0.05 and ***p<0.01.

Column 1 of this table shows a statistically significant effect at the 10% level of the treatment on participants' non-response. This means that individuals in the treatment group have a non-response rate that is 3 percentage points (p.p.) higher than those in the control group. In terms of sociodemographic characteristics, attrition varies by territory, with statistically significant effects on

the interaction of treatment with most territories. For example, non-response is 6 p.p. higher (0.04 + 0.02) for individuals assigned to the treatment group in Albacete (column 2) compared to those in the control group in the same territory. A similar pattern is observed for individuals in Málaga (column 5), where the difference in non-response between the treatment and control groups is 7 p.p. (0.06 + 0.01). A different result is seen in column 6, where non-response is 2 p.p. lower (-0.06 + 0.04) for individuals assigned to the treatment group compared to those in the control group living in Murcia. Although the effects are also statistically significant for individuals assigned to treatment in León (column 3) and Pontevedra (column 7), the magnitude of the effect on non-response in both cases is zero. The same occurs with the dichotomous variable for the age group of 31 to 40 years, where the interaction is statistically significant at the 5% level, but the magnitude of the impact on non-response is null. Finally, it is observed that selective attrition does not pose a threat to the results of the analysis due to the low attrition rate of the sample.

5 Evaluation results

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 model for estimating the causal effect of a randomized experiment is usually specified as the difference in the variable of interest between the treatment group and the control group. This approach is valid because these groups are statistically comparable due to randomization. However, given the imbalances found previously in the contrast table (**Table 1**), this analysis includes regressions where the baseline value of the dependent variable is incorporated to account for any pre-intervention differences between the treatment and control groups. Additionally, specifications are presented with additional controls such as levels of family responsibility (which, although not unbalanced, is considered relevant to include as a control), Spanish nationality, level of knowledge of the Spanish language, and whether the participant belongs to a single-parent family. To comprehensively account for all pre-intervention differences, indicators of communication, knowledge of resources, employment status, and the probability of finding a job are also included as control variables, except in cases where these control variables are the focus of the analysis.

Specifically, the main specification of regressions is as follows:

$$y_{i(post)} = \beta_0 + \beta_1 Tratamiento_i + \beta_2 X_i + \beta_3 y_{i(pre)} + \varepsilon_i$$

Where $y_{i(post)}$ is the dependent variable of interest observed after the end of the intervention for person i; $Tratamiento_i$ is a dichotomous variable that indicates whether the person *i* has been assigned to the treatment group (=1) to the control group (=0); X_i it is a vector of controls that includes the aforementioned variables and the variables used to form the strata during randomization; $y_{i(pre)}$ is the value of the variable of interest captured during the baseline; and ε_i is the term of error. In all cases, the study utilizes robust standard errors grouped at the level of the randomization stratum, explained above.

Subsequently, a heterogeneity analysis of the effects of the treatment will be performed on a series of participant characteristics.

5.2 Analysis of the results

5.2.1 Main and secondary results

This section exhibits the results of the evaluation on primary and secondary indicators, following the structure of the evaluation framework.

Personal autonomy

Main hypotheses

Table 6 shows the effects of the intervention on the resilience indicators reported by the participants. Self-perception indicators of the risk of poor psychological health have been measured in their natural units, where a higher value indicates worse psychological health. The indicators of self-confidence, self-control, and frustration tolerance are also measured in natural units, but unlike the psychological health indicator, a higher value indicates an improvement in self-confidence, self-control, and a higher tolerance for frustration. Statistically significant treatment effects are observed in the specifications without controls or baseline variables for all resilience indicators (columns 1, 4, 7, and 10). These effects are maintained after the addition of controls (columns 2, 5, and 11) and lagged dependent variables (columns 3, 6, and 12) for the variables of risk of poor psychological health and frustration tolerance. However, the effect loses statistical significance for the variable of self-confidence and self-control (columns 8 and 9).

Table 6: Effects on key resilience indicators

	Risk of poor psychological health			Risk of aggregate psychological ill health		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-0.97***	-0.86**	-0.66**	-2.16**	-2.00**	-1.70**
	(0.31)	(0.31)	(0.26)	(0.73)	(0.76)	(0.64)
Additional controls	No	Yes	Yes	No	Yes	Yes
Initial value dep.var.	No	No	Yes	No	No	Yes

	Risk of poor psychological health			Risk of aggregate psychological ill health		
	(1)	(2)	(3)	(4)	(5)	(6)
N	661	560	560	661	560	560
R^2	0.05	0.09	0.34	0.05	0.10	0.36
Control mean dep. var.	5.24	5.15	5.15	17.25	17.08	17.08

	Self-confidence and self-control			Frustration tolerance		
	(7)	(8)	(9)	(10)	(11)	(12)
Treatment	0.16**	0.11	0.13	0.22***	0.19***	0.23***
	(0.07)	(0.08)	(0.10)	(0.06)	(0.07)	(0.06)
Additional controls	No	Yes	Yes	No	Yes	Yes
Initial value dep.var.	No	No	Yes	No	No	Yes
N	661	560	560	661	560	560
R^2	0.02	0.15	0.24	0.07	0.17	0.24
Control mean dep.var.	3.63	3.65	3.65	3.68	3.67	3.67

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable. The controls include the variables of levels of family responsibility, Spanish nationality, Spanish language, single-parent family and the values of the communication baseline, knowledge of resources, employment status and the probability of finding employment.

Table 7 presents the analysis of the basic competency indicators reported by the participants. The three indicators are measured in their natural units using categorical variables, where a higher value indicates an improvement in the indicator. In this case, statistically significant effects are found at the 1% and 5% levels for the problem identification indicator, and these effects remain consistent across all three specifications.

Table 7: Effects on indicators of basic competences

	Problem identification			Own organization		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.32***	0.23**	0.25***	0.15**	0.08	0.09
	(0.06)	(0.08)	(0.07)	(0.06)	(0.06)	(0.07)
Additional controls	No	Yes	Yes	No	Yes	Yes
Initial value dep.var.	No	No	Yes	No	No	Yes
Remarks	661	560	560	661	560	560
R^2	0.02	0.07	0.10	0.06	0.20	0.27
Control mean dep.var.	3.46	3.51	3.51	3.88	3.89	3.89

	Communication		
	(7)	(8)	(9)

	Problem identification			Own organization		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment			0.13	0.09		0.02
			(0.07)	(0.06)		(0.07)
Additional controls			No	Yes		Yes
Initial value dep.var.			No	No		Yes
Remarks			661	568		560
R^2			0.03	0.07		0.22
Control mean dep.var.			3.89	3.88		3.90

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable. The controls include the variables of levels of family responsibility, Spanish nationality, Spanish language, single-parent family and the values of the communication baseline, knowledge of resources, employment status and the probability of finding employment (except in cases where this control variable is the focus of the analysis).

Secondary hypotheses

Table 8 presents the results for the secondary indicators of personal autonomy. The two indicators are measured in their natural units. A higher value in the resource knowledge indicator signifies that participants have greater knowledge of the resources available in their territory. Similarly, a higher value in the digital skills indicator indicates that participants perceive themselves as having a greater capacity to handle certain digital tools. In general, this table shows that the treatment has had a positive and statistically significant effect on both indicators, enhancing both the self-perception of digital skills and the knowledge of resources in their environment. This effect remains consistent across all three specifications.

Table 8: Effects on indicators of knowledge of digital resources and skills

	Knowledge of resources			Digital skills		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.40**	0.44***	0.22*	0.24***	0.16**	0.21**
	(0.15)	(0.15)	(0.10)	(0.06)	(0.06)	(0.07)
Additional controls	No	Yes	Yes	No	Yes	Yes
Initial value dep.var.	No	No	Yes	No	No	Yes
N	661	561	560	644	545	522
R^2	0.06	0.10	0.30	0.19	0.25	0.54
Control mean dep.var.	6.75	6.72	6.72	2.64	2.65	2.71

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable. The controls include the variables of levels of family responsibility, Spanish nationality, Spanish language, single-parent family and the values of the communication baseline, knowledge of resources, employment status and the probability of finding employment (except in cases where this control variable is the focus of the analysis).

Improvement of the employability of participants

On the other hand, we have the area of employability in which only the main hypotheses are found.

The outcome indicators to test the hypothesis of improvement in employability are reported in **Table 9** and **Table 10. Table 9** presents the three employability indicators of the hypothesis. As for the employment situation indicator, there is no statistically significant impact on any of the specifications. In relation to the indicator of interviews conducted in the last 4 weeks, a significant negative impact of 10% can be seen when the control variables are considered. However, in the other two specifications, there are no statistically significant results. Finally, in the indicator of self-perceived probability of finding a job in the following 6 months, a statistically significant positive impact is seen in the three specifications.

Table 9: Effects on employability indicators

	Employment status			Interviews conducted		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Treatment	0.05	0.02	0.02	-0.07	-0.14*	-0.09
	(0.04)	(0.05)	(0.05)	(0.07)	(0.07)	(0.09)
Additional controls	No	Yes	Yes	No	Yes	Yes
Initial value dep.var.	No	No	Yes	No	No	Yes
N	661	560	560	428	365	279
R^2	0.02	0.04	0.17	0.06	0.13	0.23
Control mean dep.var.	0.22	0.21	0.21	0.63	0.63	0.74

	Self-perceived probability of finding a job		
	(7)	**(8)**	**(9)**
Treatment	0.41***	0.37***	0.29**
	(0.09)	(0.08)	(0.07)
Additional controls	No	Yes	Yes
Initial value dep.var.	No	No	Yes
N	625	570	534
R^2	0.07	0.09	0.22
Control mean dep.var.	2.47	2.48	2.51

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable. The controls include the variables of levels of family responsibility, Spanish nationality, Spanish language, single-parent family and the values of the communication baseline, knowledge of resources, employment status and the probability of finding employment (except in cases where this control variable is the focus of the analysis).

Table 10 presents the indicators related to the time spent looking for a job and the methods used in this process. There is no significant effect on the indicator of weekly hours spent looking for work.

Conversely, the positive and statistically significant coefficients in all three specifications suggest that the treatment has a positive impact on the indicator of methods used for job search.

Table 10: Effects on job search indicators

	Weekly hours spent on job search			Methods used for job search		
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Treatment	-0.76	-0.94	-0.75	0.35***	0.24**	0.23**
	(0.62)	(0.65)	(0.77)	(0.08)	(0.10)	(0.09)
Additional controls	No	Yes	Yes	No	Yes	Yes
Initial value dep.var.	No	No	Yes	No	No	Yes
N	423	360	272	661	560	560
R^2	0.04	0.07	0.16	0.05	0.09	0.23
Control mean dep.var.	6.23	6.48	6.66	1.38	1.41	1.41

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable. The controls include the variables of levels of family responsibility, Spanish nationality, Spanish language, single-parent family and the values of the communication baseline, knowledge of resources, employment status and the probability of finding employment.

5.2.2 Heterogeneity analysis

Following the investigation of treatment effects for the primary and secondary outcome indicators, this section conducts a heterogeneity analysis of treatment effects based on three participant characteristics considered of interest to the study: gender, location, and ESO (compulsory secondary education). These characteristics have been chosen to determine how the specialized program affects these particular groups. The following specification will be used for this purpose:

$$y_{i(post)} = \beta_0 + \beta_1 Tratamiento_i + \beta_2 Tratamiento_i H_i + \beta_3 H_i + \beta_4 X_i + \varepsilon_i$$

where H_i denotes indicators for groups where the treatment could have a different impact. In this case, three indicators are analyzed: gender (1 if the participant is female, 0 if not), whether the person reports having ESO from the randomization (1 if they report having it, otherwise 0), and the territory to which the participant belongs[15]. As in the previous specifications, X_i is a vector of controls. For the first indicator, this vector will only include stratum characteristics (dichotomous variables of territory and ESO). Because the last two indicators were used to form the strata, the control vector will only include the variable that is not the focus of the analysis. That is, the dichotomous variable for people who report having completed ESO at the time of randomization and the dichotomous territory variables, respectively.

[15] Heterogeneity analysis is also performed for single-parent families. The results of the analysis and tables are in the Annex.

Beginning with the variable of gender, the study observes that the main indicators corresponding to the improvement of personal autonomy have statistically significant heterogeneous effects at 10% for the variables of self-perception of the risk of poor psychological health (column 1), identification of the problem (column 5) and communication (column 7). This is reflected in **Table 11** as follows:

Table 11: Heterogeneity by gender: main indicators of personal autonomy

	Poor psychological health	Aggr. psychological ill health	Self-confidence and self-control	Frustration tolerance	Problem identification	Independent Organization	Communication
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	-0.23	-1.19	0.07	0.16	0.12	0.13	-0.06
	(0.38)	(0.94)	(0.13)	(0.13)	(0.13)	(0.13)	(0.11)
Female	0.84*	1.24	-0.06	-0.10	-0.21	0.06	-0.02
	(0.40)	(0.75)	(0.10)	(0.10)	(0.16)	(0.13)	(0.19)
Treatment x Female	-0.94*	-1.24	0.12	0.09	0.25*	0.02	0.23*
	(0.53)	(0.89)	(0.13)	(0.13)	(0.14)	(0.15)	(0.13)
Constant	3.75***	14.45***	3.75***	3.98***	3.67***	3.85***	3.85***
	(0.33)	(0.68)	(0.07)	(0.10)	(0.16)	(0.10)	(0.21)
N	661	661	661	661	661	661	661
R^2	0.05	0.05	0.02	0.07	0.03	0.06	0.03
Control mean dep.var.	5.24	17.25	3.63	3.68	3.46	3.88	3.89

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include stratification variables.

On the other hand, regarding the secondary indicators of personal autonomy, there are no heterogeneous effects by gender in any of these indicators, including knowledge of resources and digital skills. See **Table 12**:

Table 12: Heterogeneity by gender: secondary indicators of personal autonomy

	Knowledge of resources	Digital skills
	(1)	(2)
Treatment	0.09	0.11
	(0.30)	(0.16)
Female	-0.16	-0.13
	(0.26)	(0.15)
Treatment x Female	0.38	0.17
	(0.42)	(0.18)
Constant	7.95***	2.48***

	Knowledge of resources	Digital skills
	(1)	(2)
	(0.29)	(0.10)
N	661	644
R^2	0.06	0.19
Control mean dep.var.	6.75	2.64

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Finally, the study analyzes the heterogeneous effects by gender of the indicators that respond to employability. **Table 13** shows statistically significant coefficients in the interaction variables of treatment and gender for the indicators of employment status (column 1), interviews conducted (column 2) and weekly hours dedicated to job search (column 4).

Table 13: Heterogeneity by gender: main indicators of employability

	Employment status	Interviews conducted	Self-perceived probability of finding a job	Weekly hours spent on job search	Methods used for job search
	(1)	(2)	(3)	(4)	(5)
Treatment	-0.07	-0.44*	0.35**	-3.25***	0.48*
	(0.05)	(0.21)	(0.16)	(1.07)	(0.24)
Female	-0.04	-0.42***	-0.09	-4.04***	-0.16
	(0.05)	(0.13)	(0.13)	(0.94)	(0.30)
Treatment x Female	0.14***	0.48*	0.09	3.28***	-0.16
	(0.05)	(0.23)	(0.16)	(1.07)	(0.31)
Constant	0.16***	1.09***	2.75***	10.89***	1.76***
	(0.04)	(0.12)	(0.11)	(1.17)	(0.27)
N	661	428	625	423	662
R^2	0.02	0.07	0.07	0.08	0.06
Control mean dep.var.	0.22	0.63	2.47	6.23	1.38

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Now, this report focusses on the heterogeneous effects for individuals who report having completed ESO. In this case, the variable of interest is the interaction between treatment and the dichotomous variable of ESO. **Table 14** shows the results of the analysis for the main indicators of personal autonomy. It indicates that the treatment reduces communication (column 7) by 0.03 points (-0.27 + 0.24) for individuals who report having ESO and increases communication by 0.24 points for those who report not having ESO. For the remaining indicators, the differential effect of treatment for individuals who report having ESO is not statistically different from zero.

Table 14: Heterogeneity by ESO: main indicators of personal autonomy

	Poor psychological health	Aggr. psychological ill health	Self-confidence and self-control	Frustration tolerance	Problem identification	Independent Organization	Communication
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	-1.08**	-2.30**	0.22***	0.22**	0.35***	0.20**	0.24***
	(0.45)	(1.07)	(0.05)	(0.08)	(0.02)	(0.08)	(0.06)
People who report having ESO	-0.11	-0.02	0.15	0.17*	0.17**	0.31***	0.45***
	(0.35)	(0.86)	(0.12)	(0.09)	(0.07)	(0.07)	(0.09)
Treatment x People who report having ESO	0.27	0.34	-0.15	0.01	-0.06	-0.12	-0.27*
	(0.57)	(1.39)	(0.15)	(0.13)	(0.14)	(0.09)	(0.13)
Constant	4.46***	15.47***	3.66***	3.91***	3.49***	3.86***	3.75***
	(0.29)	(0.64)	(0.04)	(0.08)	(0.08)	(0.05)	(0.13)
N	661	661	661	661	661	661	661
R^2	0.05	0.05	0.02	0.07	0.02	0.07	0.03
Control mean dep.var.	5.24	17.25	3.63	3.68	3.46	3.88	3.89

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

In the case of the secondary indicators of knowledge of digital resources and skills, **Table** 15 reports the heterogeneous results by ESO. For the resource knowledge indicator, there is no differential impact of treatment for individuals who report having completed ESO. However, the treatment increases digital skills in individuals who report having completed ESO.

Table 15: Heterogeneity by ESO: secondary indicators of personal autonomy

	Knowledge of resources	Digital skills
	(1)	(2)
Treatment	0.35**	0.36***
	(0.15)	(0.06)
Reporting Persons having ESO	0.16	0.91***
	(0.22)	(0.07)
Treatment x People who report having ESO	0.11	-0.26**
	(0.31)	(0.11)
Constant	7.84***	2.31***
	(0.31)	(0.07)
N	661	644
R^2	0.06	0.19

	Knowledge of resources (1)	Digital skills (2)
Control mean dep.var.	6.75	2.64

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Table 16 reports the differential effects of treatment in people who report having ESO in the main indicators of employability. Similar to what was found in **Table 11** of heterogeneity by gender, statistically significant effects of treatment are found, which increases the number of weekly hours spent looking for work by 0.43 (2.05 - 1.62) points for people who report having ESO, while reducing the number of hours per week by 1.62 points for people in treatment who report not having it (column 4).

Table 16: Heterogeneity by ESO: main indicators of employability

	Employment status (1)	Interviews conducted (2)	Self-perceived probability of finding a job (3)	Weekly hours spent on job search (4)	Methods used for job search (5)
Treatment	0.10*	0.02	0.41***	-1.62**	0.34**
	(0.05)	(0.07)	(0.13)	(0.66)	(0.11)
People who report having ESO	0.11***	0.04	0.08	-1.14	0.18
	(0.03)	(0.15)	(0.08)	(0.68)	(0.12)
Treatment x People who report having ESO	-0.12	-0.22	0.02	2.05*	0.04
	(0.07)	(0.13)	(0.16)	(1.12)	(0.15)
Constant	0.10***	0.72***	2.68***	8.37***	1.67***
	(0.02)	(0.06)	(0.08)	(1.07)	(0.11)
N	661	428	625	423	661
R^2	0.02	0.06	0.07	0.05	0.05
Control mean dep.var.	0.22	0.63	2.47	6.23	1.38

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable

Finally, the study conducts an analysis of heterogeneity by locality identified to perform the stratification. In this context, the tables included in this analysis have more than one relevant interaction, as both the treatment and dichotomous variables by locality must be considered. Therefore, the comparison group will be the locality whose dichotomous variable and its interaction have not been included in the regression (in this case, it is the locality of Albacete). Following the structure of the previous sections, **Table 17** shows the results of heterogeneity by locality for the main indicators of personal autonomy. Heterogeneity is observed in the impact of the treatment on the different indicators across the territories.

Table 17: Heterogeneity by locality: main indicators of personal autonomy

	Poor psychological health	Aggr. psychological ill health	Self-confidence and self-control	Frustration tolerance	Problem identification	Independent Organization	Communication
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	-2.01***	-4.50**	0.21	0.58***	0.33**	-0.04	0.10
	(0.40)	(0.46)	(0.17)	(0.17)	(0.02)	(0.04)	(0.14)
Territory-Almansa and Hellín	1.34***	2.92***	-0.17	0.31***	0.24**	0.08***	-0.34
	(0.39)	(0.53)	(0.10)	(0.03)	(0.08)	(0.02)	(0.20)
Territory-León	0.29	0.96	-0.05	-0.55*	-0.06	-0.65***	0.37
	(1.16)	(1.82)	(0.23)	(0.29)	(0.33)	(0.12)	(0.22)
Territory-El Bierzo	-0.47	-0.72	-0.28*	-0.43*	-0.33***	-0.89***	-0.38
	(0.53)	(1.11)	(0.14)	(0.20)	(0.09)	(0.21)	(0.31)
Territory-Málaga	-0.73*	-1.38**	-0.19	0.06	-0.07	-0.24***	-0.11
	(0.40)	(0.61)	(0.14)	(0.08)	(0.10)	(0.07)	(0.20)
Territory-Madrid	1.38***	2.49***	-0.02	-0.07*	-0.19*	-0.22***	0.00
	(0.40)	(0.57)	(0.10)	(0.03)	(0.10)	(0.03)	(0.22)
Territory-Murcia	0.53	0.89	-0.07	-0.19**	-0.14	-0.26***	-0.10
	(0.54)	(1.06)	(0.19)	(0.08)	(0.09)	(0.03)	(0.23)
Territory-Pontevedra	-0.73*	-1.26**	0.13	-0.02	0.03	-0.07	-0.06
	(0.39)	(0.56)	(0.15)	(0.14)	(0.10)	(0.15)	(0.21)
Treatment x Territory - Almansa and Hellín	-0.03	-0.25	0.40**	-0.14	-0.19***	0.33***	0.73***
	(0.40)	(0.46)	(0.17)	(0.17)	(0.02)	(0.04)	(0.14)
Treatment x Territory - León	3.68*	7.35**	-0.44*	-0.05	-0.65	0.62***	-0.58**
	(1.88)	(2.62)	(0.25)	(0.61)	(0.46)	(0.06)	(0.25)
Treatment x Territory - El Bierzo	0.09	2.47**	0.24	-0.28	0.23	0.68***	0.53**
	(0.50)	(1.10)	(0.19)	(0.22)	(0.20)	(0.08)	(0.20)
Treatment x Territory - Málaga	1.24**	2.98**	0.19	-0.40*	0.10	0.29***	0.12
	(0.57)	(1.36)	(0.19)	(0.19)	(0.11)	(0.07)	(0.14)
Treatment x Territory - Madrid	0.13	-0.07	-0.07	-0.47**	0.08***	0.19	-0.09
	(0.54)	(0.88)	(0.20)	(0.18)	(0.02)	(0.11)	(0.24)
Treatment x	1.32**	3.43***	-0.19	-0.41**	0.04	0.15	-0.09

	Poor psychological health	Aggr. psychological ill health	Self-confidence and self-control	Frustration tolerance	Problem identification	Independent Organization	Communication
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Territory - Murcia	(0.59)	(1.11)	(0.23)	(0.18)	(0.03)	(0.09)	(0.19)
Treatment x Territory - Pontevedra	2.52***	4.39***	-0.27	-0.43	-0.34	-0.06	0.13
	(0.54)	(1.37)	(0.18)	(0.29)	(0.33)	(0.16)	(0.17)
Constant	5.03***	16.83***	3.67***	3.69***	3.51***	4.01***	3.84***
	(0.39)	(0.53)	(0.10)	(0.03)	(0.08)	(0.02)	(0.20)
N	661	661	661	661	661	661	661
R^2	0.06	0.07	0.03	0.07	0.03	0.07	0.04
Mean Control Group	5.24	17.25	3.63	3.68	3.46	3.88	3.89

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Table 18 shows the heterogeneous effects by territory on the secondary indicators of personal autonomy. On one hand, there is only a differential impact of the treatment on the resource knowledge indicator in Madrid, where there is a reduction of 0.23 points, compared to an increase of approximately 0.43 points in the rest of the territories. On the other hand, the digital skills indicator increases for people in treatment who live in Almansa and Hellín (0.91), El Bierzo (0.28), Málaga (0.35), Murcia (0.37), and Pontevedra (0.17). In this case, no significant impacts of the treatment are found in the rest of the territories.

Table 18: Heterogeneity by locality: secondary indicators of personal autonomy

	Knowledge of resources	Digital skills
	(1)	(2)
Treatment	0.43**	-0.00
	(0.19)	(0.09)
Territory - Almansa and Hellín	0.20	-0.38***
	(0.19)	(0.12)
Territory - León	-0.85	0.13
	(0.84)	(0.17)
Territory - El Bierzo	-0.76**	-0.59***
	(0.30)	(0.15)
Territory - Málaga	-1.64***	-0.17
	(0.19)	(0.13)
Territory - Madrid	-0.92***	-0.14
	(0.31)	(0.12)

	Knowledge of resources (1)	Digital skills (2)
Territory - Murcia	-1.56***	-0.33*
	(0.26)	(0.16)
Territory - Pontevedra	-0.98***	-0.18
	(0.24)	(0.12)
Treatment x Territory - Almansa and Hellín	-0.09	0.91***
	(0.19)	(0.09)
Treatment x Territory - León	-0.15	-0.34
	(0.42)	(0.29)
Treatment x Territory - El Bierzo	0.18	0.28**
	(0.41)	(0.10)
Treatment x Territory - Málaga	0.48	0.35***
	(0.43)	(0.11)
Treatment x Territory - Madrid	-0.66***	0.16
	(0.20)	(0.16)
Treatment x Territory - Murcia	-0.04	0.37**
	(0.19)	(0.13)
Treatment x Territory - Pontevedra	0.27	0.17*
	(0.24)	(0.09)
Constant	7.80***	2.52***
	(0.19)	(0.12)
N	661	644
R^2	0.07	0.20
Mean Control Group	6.75	2.64

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Finally, **Table 19** presents the analysis of heterogeneity by locality for the employability variables. Regarding the employment status of participants in the treatment, there is a differentiated effect by locality. Specifically, there is an increase in employment status for participants in the towns of Almansa and Hellín (11 percentage points), El Bierzo (16 percentage points), Málaga (4 percentage points), Madrid (12 percentage points), and Pontevedra (12 percentage points). However, there is a reduction of 17 percentage points in the employment status of participants in the treatment who live in other territories. The self-perceived probability of finding a job also shows differentiated effects of treatment by locality. In this case, the indicator increases for individuals assigned to treatment in the towns of El Bierzo (0.44), Madrid (0.74), Murcia (0.48), and Pontevedra (0.48). However, the impact is not significant for participants in other locations. As shown in column 2, no differentiated impacts of treatment by locality were observed in the indicator of interviews conducted in the last four weeks.

Regarding the job search variables, statistically significant effects of the treatment are found. Specifically, the treatment increases the number of weekly hours dedicated to job search by 5.5 hours for individuals living in León. However, the treatment reduces the weekly hours of job search by 10.4 hours for participants living in Albacete, El Bierzo, Málaga, Murcia, and Pontevedra. The reduction caused by the treatment is even greater in Almansa and Hellín (-4.11 hours) and Madrid (-3.04 hours).

Regarding the number of job search methods, the treatment increases the number for participants living in Almansa and Hellín (1.06), León (1.25), Málaga (0.49), Madrid (0.22), Murcia (0.24), and Pontevedra (0.76). However, the treatment reduces the number of search methods for participants in the remaining territories.

Table 19: Heterogeneity by locality: main indicators of employability

	Employment status	Interviews conducted	Self-perceived probability of finding a job	Weekly hours spent on job search	Methods used for job search
	(1)	(2)	(3)	(4)	(5)
Treatment	-0.17***	0.08	-0.01	-1.04**	-0.08***
	(0.02)	(0.17)	(0.14)	(0.45)	(0.01)
Territory-Almansa and Hellín	-0.26***	-0.54***	-0.05	4.99***	0.58***
	(0.01)	(0.10)	(0.06)	(0.79)	(0.11)
Territory-León	0.15***	-0.02	-0.41	-5.99***	-1.29***
	(0.03)	(0.22)	(0.42)	(0.91)	(0.12)
Territory-El Bierzo	-0.08	-0.32**	-0.80***	-2.67**	-0.95**
	(0.05)	(0.14)	(0.08)	(1.21)	(0.36)
Territory-Málaga	-0.01	-0.25*	-0.34***	-1.13	-0.78***
	(0.02)	(0.12)	(0.05)	(0.81)	(0.13)
Territory-Madrid	-0.09***	0.19	-0.69***	-0.56	-0.86***
	(0.00)	(0.23)	(0.05)	(1.07)	(0.12)
Territory-Murcia	-0.08**	-0.17	-0.64***	-3.00***	-0.55***
	(0.03)	(0.19)	(0.06)	(0.85)	(0.13)
Territory-Pontevedra	-0.07*	0.70***	-0.49***	-4.13***	-0.52**
	(0.03)	(0.23)	(0.06)	(1.20)	(0.18)
Treatment x Territory - Almansa and Hellín	0.28***	-0.00	-0.20	-3.07***	1.14***
	(0.02)	(0.17)	(0.14)	(0.45)	(0.01)
Treatment x Territory - León	-0.05	0.43	-0.20	6.54***	1.33***
	(0.13)	(0.86)	(0.39)	(0.84)	(0.11)
Treatment x Territory - El Bierzo	0.33***	0.25	0.45**	-0.29	-0.07
	(0.05)	(0.19)	(0.17)	(1.90)	(0.09)

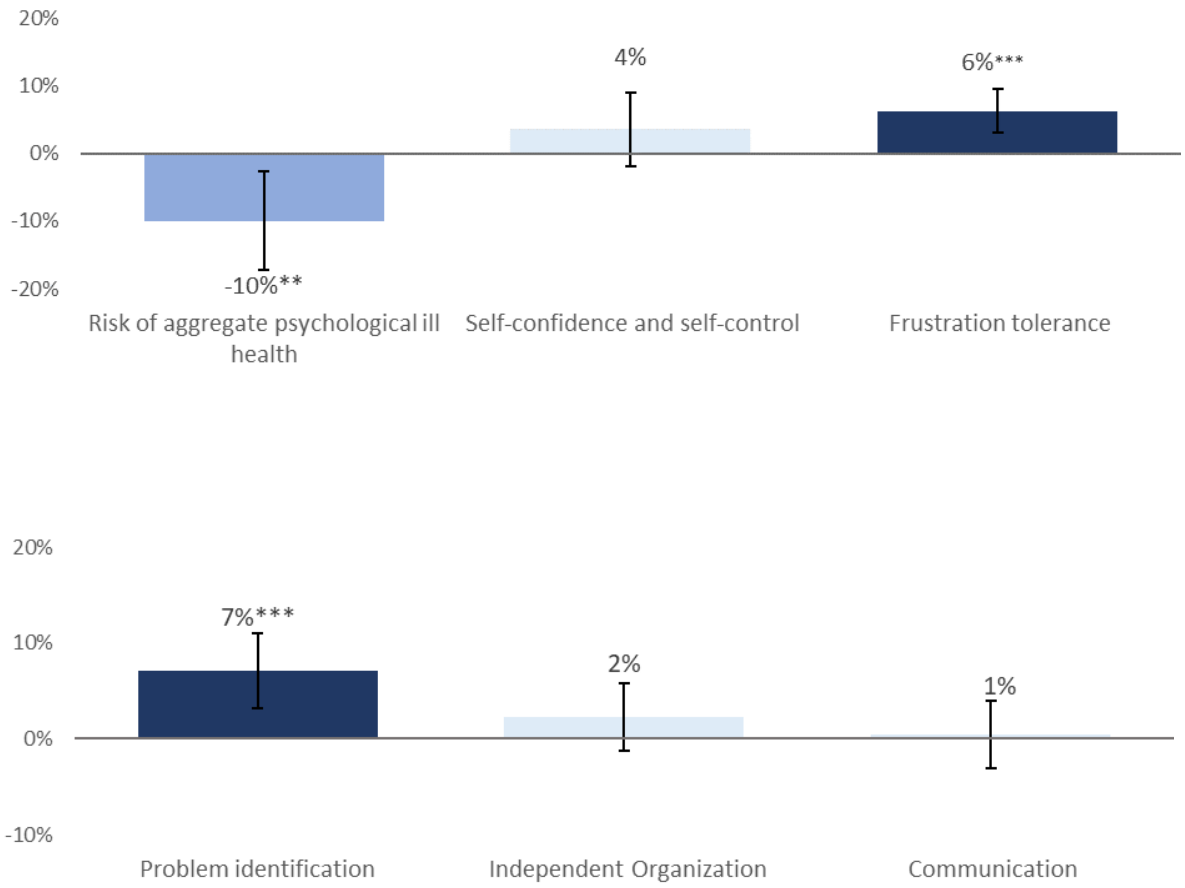
	Employment status (1)	Interviews conducted (2)	Self-perceived probability of finding a job (3)	Weekly hours spent on job search (4)	Methods used for job search (5)
Treatment x Territory - Málaga	0.21***	-0.20	0.30	0.12	0.57***
	(0.03)	(0.18)	(0.18)	(0.45)	(0.04)
Treatment x Territory - Madrid	0.29***	-0.10	0.75***	-2.00*	0.30***
	(0.05)	(0.20)	(0.15)	(1.08)	(0.06)
Treatment x Territory - Murcia	0.21	-0.30	0.49**	0.50	0.32***
	(0.13)	(0.23)	(0.17)	(0.56)	(0.01)
Treatment x Territory - Pontevedra	0.29***	-0.29	0.49*	3.52	0.84***
	(0.03)	(0.19)	(0.23)	(2.18)	(0.15)
Constant	0.26***	0.68***	2.93***	8.01***	1.92***
	(0.01)	(0.10)	(0.06)	(0.79)	(0.11)
N	661	428	625	423	661
R^2	0.03	0.07	0.08	0.06	0.06
Mean Control Group	0.22	0.63	2.47	6.23	1.38

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

6 Conclusions of the evaluation

This pilot project has provided causal evidence on the effect of a specialized program aimed at improving the labor market insertion and personal autonomy of vulnerable adults, compared to the regular services offered by Cruz Roja Española. The evaluation was conducted using an experimental design, employing stratified randomization (by territory and whether the individual reported having completed ESO) to assign participants to either the treatment group or the control group. Due to the nature of the implementing organization, the design did not include a pure control group. A total of 695 individuals were enrolled in the sample at the beginning of the intervention.

Figure 8: Effect of the intervention on the headline indicators



Note: Indicators whose treatment effect is significant at 1% are presented in dark blue, significant effects at 5% in blue, and indicators that are not significant at 10% are shown in light blue. The effects included in the graphs refer to regressions with controls and are expressed as a percentage of the mean of the control group in the end-of-line survey.

In general, positive, and statistically significant effects of the treatment are observed on indicators of personal autonomy outcomes. Firstly, the treatment reduces the risk of poor psychological health among participants, with this result being consistent across various measurements of the indicator. Additionally, an increase in tolerance to frustration is noted among those who participate in the treatment. Regarding the basic competencies that participants must possess, the treatment has a positive impact on their ability to identify the problems they face when searching for a job. Similar positive and consistent effects are observed in the secondary indicators of personal autonomy. The treatment enhances participants' knowledge of the services offered in their territories. Additionally, the treatment leads to an improvement in participants' self-perception of their ability to handle digital tools.

Regarding employability indicators, no significant impacts are observed in most of them. For instance, the treatment does not appear to influence participants' employment status at the end of the intervention. However, this result may be since the measurement was taken immediately after the activities were completed, and the effects on the employment status of treatment participants may not be evident for some time. There is also no impact on the number of job interviews conducted in

the last four weeks or on the number of hours per week spent looking for work. In these two indicators, a drop in the sample observations could explain the lack of impact. Another possible reason for these results is that participants may have allocated the time they usually spend on interviews and job searching to participating in the interventions offered by the specialized CRE program. However, the treatment does produce an improvement in the self-perceived probability of finding a job within the next six months and increases the number of methods used in the job search.

It can be concluded that the specialized CRE program demonstrates improvements in the autonomy and employability of vulnerable individuals in Spanish territories compared to the regular services offered by the entity. It is important to note that, in some cases where there has been a statistically significant impact, the magnitude of the effect may be small. This could be partly due to the use of categorical variables for many of the outcome indicators, which may not fully capture the variability in responses. Additionally, these effects capture the differential impact of the specialized program (treatment) compared to regular services (control). It is likely that, if there had been a pure control group that did not receive any assistance, the estimated effects of the treatment would be larger.

Bibliography

Alfonsi, L., O. Bandiera, V. Bassi, R. Burgess, I. Rasul, M. Sulaiman, and A. Vitali. (2020) "Tackling youth unemployment: Evidence from a labor market experiment in Uganda." Econometrica 88, no. 6: 2369-2414.

Atkin, D., Schoar, A., & Wahnschafft, K. (2021). Evaluating Sama's Training and Job Programs in Nairobi, Kenya. https://www.povertyactionlab.org/sites/default/files/research-paper/Samasource%20Evaluation%20Final%20%282%29_0.pdf

Baird, M., J. Engberg, and I. Gutierrez. (2021) "Outcome Mechanisms for Improved Employment and Earnings through Screened Job Training: Evidence from an RCT." IZA Discussion Paper No. 14435.

Baird, M. D., Engberg, J., & Gutierrez, I. A. (2022). RCT evidence on differential impact of US job training programs by pre-training employment status. Labour Economics, 75, 102140. https://www.sciencedirect.com/science/article/abs/pii/S0927537122000331

Barrera-Osorio, F., Kugler, A., & Silliman, M. (2023). Hard and soft skills in vocational training: Experimental evidence from Colombia. The World Bank Economic Review, 37(3), 409-436. https://academic.oup.com/wber/article-abstract/37/3/409/7076451

Bassi, V., and A. Nansamba. (2022) "Screening and signalling non-cognitive skills: experimental evidence from Uganda." The Economic Journal 132, no. 642: 471-511.

Card, D., Kluve, J., & Weber, A. (2010). Active labour market policy evaluations: A meta-analysis. The economic journal, 120(548), F452-F477. https://academic.oup.com/ej/article-abstract/120/548/F452/5089463

Carranza, E., R. Garlick, K. Orkin, and N Rankin. (2020). "Job Search and Hiring with Two-Sided Limited Information about Workseekers' Skills." CSAE Working Paper Series. University of Oxford.

Choudhary, H., & Bansal, N. (2022). "Barriers Affecting the Effectiveness of Digital Literacy Training Programs (DLTPs) for Marginalised Populations: A Systematic Literature Review." Journal of Technical Education and Training, 14(1), 110-127. https://publisher.uthm.edu.my/ojs/index.php/JTET/article/view/10586/5096

European Commission. (2020). Digital Education Action Plan (2021-2027). European Education Area. Retrieved from https://education.ec.europa.eu/es/focus-topics/digital-education/action-plan

European Commission. (2021). Europe's Digital Decade. https://digital-strategy.ec.europa.eu/es/policies/europes-digital-decade

Cruz Roja Española (2022), "Memoria 2022", n.d., Madrid. https://www2.cruzroja.es/documents/5640665/13684740/Cruz+Roja+Memoria+2022.pdf/09a56375-62b0-c3cc-4aa1-6402c170260c?t=1691132762189

National Institute of Statistics (2017). "National Health Survey 2017. ENSE. Methodology", n.d., Madrid, https://www.ine.es/metodologia/t15/t153041917.pdf

National Institute of Statistics. (2023). Survey on Equipment and Use of Information and Communication Technologies in Households. https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=estadistica_C&cid=1254736176741&menu=ultiDatos&idp=1254735976608

Llano Ortiz, J.C. (dir.). (2023). AROPE Report 2023: The State of Poverty. Monitoring of the EU 2030 Agenda indicator. 2015-2022. EAPN. https://www.eapn.es/estadodepobreza/ARCHIVO/documentos/Informe_AROPE_2023_completo.pdf

Ministry of Health, Consumer Affairs and Social Welfare. (2019). National Strategy for the Prevention and Fight against Poverty and Social Exclusion 2019-2023. https://www.eapn.es/ARCHIVO/documentos/noticias/1553262965_estrategia_prev_y_lucha_pobreza_2019-23.pdf

Osman, A., & Speer, J. (2022). Are Soft Skills Enough? Experimental Evidence on Skill Complementarity for College Graduates. Experimental Evidence on Skill Complementarity for College Graduates (August 1, 2022). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4178563

Todeschini, F., Alegre, M.A., Moreno. (2016). Evaluation of Barcelona Activa's Mobilitza´t program. Catalan Institute for the Evaluation of Public Policies (IVÀLUA). https://www.researchgate.net/publication/325287253_Avaluacio_del_programa_Mobilitza't_de_Barcelona_Activa

United Nations Department of Economic and Social Affairs. (2016). Report on the World Social Situation 2016: Leaving no one behind: The imperative of inclusive development. https://www.un.org/esa/socdev/rwss/2016/full-report.pdf.

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, dated 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,[16] 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, along with Royal Decree 378/2022, of May 17[17], "at least 10 additional collaboration agreements signed with subnational public administrations, social partners and entities of the Third Sector of Social Action to implement pilot projects to support the socio-economic inclusion of the beneficiaries of MIS through itineraries" contributed to compliance with

[16] Royal Decree 938/2021, dated 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 euros, 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

[17] Royal Decree 378/2022, dated 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 euros, 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[18].

Furthermore, after the implementation 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 evaluation, 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 authority for granting them, without prejudice to the existing delegations of competence in the matter, upon request of the beneficiary organizations.

On **August 31, 2022**, Cruz Roja Española organization was notified of the Resolution of the General Secretariat of Objectives and Policies for Inclusion and Social Welfare, granting a subsidy amounting to €3,222,885 euros to Cruz Roja Española. Subsequently, on **September 1, 2022**, 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 Cruz Roja Española, for the implementation of a Social inclusion project within the framework of the Recovery, Transformation and Resilience Plan, which was published in the "*Boletín Oficial del Estado*" **on 17 September 2022** (BOE no. 224).[19]

2. Temporal framework of the intervention

Article 17(1) of Royal Decree 378/2022 dated 17 May 2022 established that the deadline for the implementation of the pilot projects of social inclusion itineraries subject to the subsidies provided for in this text shall not exceed the deadline of 30 November 2023, while the evaluation shall not extend beyond March 31, 2024, in order to meet the milestones set by the Recovery, Transformation and Resilience Plan regarding social inclusion policy.

Within this general timeframe, the implementation begins on **May 3, 2023,** with the start of the intervention itinerary, continuing the execution tasks until **November 30, 2023,** and subsequently, only tasks related to project dissemination and evaluation are conducted until **March 31, 2024**.

3. Relevant Agents

[18] 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

[19] https://www.boe.es/diario_boe/txt.php?id=BOE-A-2022-15201

Among the relevant agents in the implementation of the project can be mentioned:

- **Cruz Roja Española,** as the beneficiary organization and coordinator of the project.
- The **Ministry of Inclusion, Social Security and Migration (MISSM)** as the sponsor of the project, and as the main responsible for the RCT evaluation process. The General Secretariat for Inclusion (SGI) assumes the following commitments:
  a) Assist the beneficiary entity in the design of the activities to be carried out for the implementation and monitoring of the object of the subsidy, as well as for the profiling of the potential participants of 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.
- The **14 companies** hired to provide the certificates of professionalism:

Name of the entity	Activities to be conducted	Place
Formación Avanzada	Delivery of a certificate of professionalism auxiliary trade activities and their complementary training: forklift driving.	Albacete
Next Generation	Delivery of a certificate of professionalism: social and health care for dependent people in social institutions.	Albacete
Logística Jit	Delivery of a certificate of professionalism: auxiliary warehouse activities and their associated complementary training: internet commerce, optimization of resources.	Albacete
Mercamadrid S.A.	Delivery of a certificate of professionalism: auxiliary warehouse activities.	Madrid
Mercamadrid S.A.	Delivery of a certificate of professionalism auxiliary trade activities and their complementary training: forklift driving.	Madrid
Asidom Servicios Personalizados	Delivery of a certificate of professionalism for auxiliary operations of administrative and general services.	Madrid
Torcal Formación	Delivery of a certificate of professionalism: social and health care for dependent people in social institutions.	Málaga
Torcal Formación	Delivery of a certificate of professionalism: auxiliary warehouse activities and their associated complementary training: forklift driving course, cashier and replacement course and course on basic customer service and conflict resolution techniques.	Málaga
Torcal Formación	Delivery of a certificate of professionalism: cleaning of surfaces and furniture in buildings and premises, and its associated training: cleaning course in schools and hospital cleaning and disinfection techniques course.	Málaga
San Nicolás S.L.	Delivery of a certificate of professionalism in telecare call management.	Murcia

Fremm	Delivery of the certificate of professionalism: auxiliary activities of commerce and associated training: course on internet commerce and optimization of resources.	Murcia
Centro De Formación San Nicolás	Delivery of a certificate of professionalism: cleaning of surfaces and furniture in buildings and premises, and its associated training: basic course on occupational risk prevention and course on the prevention of food allergies and intolerances.	Murcia
Cip	Delivery of a certificate of professionalism: social and health care for dependent people in social institutions.	Pontevedra
Aula Estudio	Delivery of a certificate of professionalism: cleaning of surfaces and furniture in buildings and premises and associated training: industrial cleaning course.	Pontevedra

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

Complementary heterogeneity analysis

As part of the heterogeneity analysis, the interaction of the treatment with the dichotomous variable of single-parent families (1 if it is a single-parent family, 0 if it is another type of family) was examined. The following tables show that there are no differential effects by type of family in any of the indicators relevant to this study.

Table 20: Heterogeneity by single-parent families in main indicators of personal autonomy

	Poor psychological health	Aggr. psychological ill health	Self-confidence and self-control	Frustration tolerance	Problem identification	Independent Organization	Communication
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treatment	-0.87**	-2.08***	0.13	0.26**	0.33***	0.16	-0.01
	(0.30)	(0.61)	(0.12)	(0.09)	(0.09)	(0.10)	(0.12)
Single-parent families	0.70	1.30*	-0.05	0.04	0.02	0.08	-0.08
	(0.43)	(0.69)	(0.10)	(0.08)	(0.13)	(0.09)	(0.15)
Treatment x Single-parent families	-0.34	-0.44	0.08	-0.05	-0.02	-0.03	0.29
	(0.71)	(1.06)	(0.15)	(0.11)	(0.18)	(0.12)	(0.17)
Constant	4.09***	14.84***	3.71***	3.88***	3.50***	3.85***	3.84***
	(0.25)	(0.45)	(0.07)	(0.08)	(0.11)	(0.07)	(0.17)
N	654	654	654	654	654	654	654
R^2	0.05	0.06	0.02	0.07	0.02	0.06	0.03
Mean Control Group	5.26	17.28	3.64	3.68	3.47	3.88	3.89

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Table 21: Heterogeneity by single-parent family: secondary indicators of personal autonomy

	Knowledge of resources	Digital skills
	(1)	(2)
Treatment	0.44**	0.28**
	(0.20)	(0.11)
Single-parent families	0.29	0.11
	(0.19)	(0.12)
Treatment x Single-parent families	-0.06	-0.05
	(0.26)	(0.17)
Constant	7.67***	2.31***
	(0.34)	(0.09)
N	654	637
R^2	0.07	0.19

	Knowledge of resources (1)	Digital skills (2)
Mean Control Group	6.75	2.64

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.

Table 19: Heterogeneity by locality: main indicators of employability

	Employment status (1)	Interviews conducted (2)	Self-perceived probability of finding a job (3)	Weekly hours spent on job search (4)	Methods used for job search (5)
Treatment	0.06	-0.09	0.46***	-1.16	0.46***
	(0.05)	(0.13)	(0.11)	(1.16)	(0.12)
Single-parent families	0.08*	-0.24**	-0.04	-0.99	0.10
	(0.04)	(0.11)	(0.13)	(0.87)	(0.21)
Treatment x Single-parent families	-0.03	0.05	-0.10	0.76	-0.19
	(0.07)	(0.21)	(0.14)	(1.34)	(0.20)
Constant	0.09**	0.91***	2.70***	8.37***	1.60***
	(0.03)	(0.08)	(0.08)	(1.17)	(0.17)
N	654	424	618	419	654
R^2	0.02	0.07	0.07	0.04	0.05
Mean Control Group	0.22	0.63	2.47	6.26	1.38

Note: Standard errors in parentheses. Robust standard errors have been used and grouped by stratum. Significance levels *p<0.1, **p<0.05 and ***p<0.01. All regressions include the stratification variable.