THE LATIN MODEL OF WELFARE: DO 'INSERTION CONTRACTS' REDUCE LONG-TERM DEPENDENCE?

Luis Ayala Magdalena Rodríguez

FUNDACIÓN DE LAS CAJAS DE AHORROS DOCUMENTO DE TRABAJO № 212/2005 De conformidad con la base quinta de la convocatoria del Programa de Estímulo a la Investigación, este trabajo ha sido sometido a evaluación externa anónima de especialistas cualificados a fin de contrastar su nivel técnico.

ISBN: 84-89116-07-5

La serie **DOCUMENTOS DE TRABAJO** incluye avances y resultados de investigaciones dentro de los programas de la Fundación de las Cajas de Ahorros. Las opiniones son responsabilidad de los autores.

The Latin Model of Welfare: Do 'Insertion Contracts' Reduce Long-Term Dependence?

Luis Ayala¹ Universidad Rey Juan Carlos

Magdalena Rodríguez² Instituto de Estudios Fiscales

¹ Facultad de Ciencias Jurídicas y Sociales, Universidad Rey Juan Carlos, Paseo Artilleros s/n, 28032 Madrid, SPAIN, <u>huis.ayala@urjc.es</u>

²Instituto de Estudios Fiscales, Cardenal Herrera Oria 378, 28035 Madrid, <u>magdalena.rodriguez@ief.minhac.es</u>

The Latin Model of Welfare: Do 'Insertion Contracts' Reduce Long-Term Dependence?

Abstract

This paper aims to present an assessment of the welfare policies implemented in most South European countries. Welfare programs in these countries try to combine a basic level of economic protection and measures favoring life and labor skills of low-income households. We focus on a specific program set up with the twofold strategy of cash and insertion benefits (Madrid's IMI) and, more precisely, on the so-called 'insertion projects', consisting in a gradual mix of job search assistance, training and subsidized jobs. We evaluate the effects of these 'insertion projects' on welfare recidivism and the duration of off-welfare spells using propensity score-matching methods. Our results suggest that a variety of estimators produce estimates of 'insertion project' effects that are quite similar. Both recidivism rates as well as the duration of off-welfare spells suggest potentially successful interventions.

JEL Classification: I38, C21, C41

Keywords: welfare, recidivism, insertion contracts, propensity score

1. INTRODUCTION¹

Public assistance programs continue to be the focus of much concern. There is a growing conviction that welfare policies favor behavior leading to dependency on Public Assistance and consequently to a reduction in the intensity of job searching. As a result, most OECD countries have put restrictive reforms into effect, establishing stricter time limits and imposing more onerous obligations on those receiving benefits. Additionally, Public Assistance programs have undergone major changes to foster transitions from welfare to work. Within public policy discussions of welfare programs, there is no doubt that the big picture of work incentives has become the major topic of concern.

A range of welfare reforms strengthening the role of training and financial incentives for low-income families has taken place in many of the Western welfare states. The scope of these reforms varies considerably across countries. In the United States, work and self-sufficiency have moved to center stage. The Temporary Assistance for Needy Families (TANF) program introduced a new block grant setting specific employment targets for welfare recipients². In the United Kingdom, new policies focusing on low-income families with children have also been put into action, combining Social Assistance reforms with earned income tax credits³. The British reforms have been generous, raising benefits for families with children and relying on voluntary work incentives rather than the U.S. restrictions related to the employment behavior of welfare recipients. Since the mid 1990s, Nordic countries have also included activation measures in the field of Social Security and labor market policies⁴. The purpose of a complex set of programs was to improve the long-term position of welfare recipients in the labor market by providing subsidized work experience and training. The Netherlands is no exception to these trends and is usually seen as one of the forerunners⁵.

¹ We are grateful for the financial support received from the Instituto de Estudios Fiscales and the Ministry of Science and Technology through the National Scientific Research, Development and Technological Innovation Plan.

² The literature reviews of the welfare reforms implemented across the United States is enormous. For a synthetic overview see Moffitt and Ver Ploeg (2001), Blank (2002), and Grogger *et al.* (2002).

³ For a comprehensive summary of the British reforms, see Blundell and Meghir (2002) and Hills and Waldfogel (2004).

⁴ See Hvinden (2000), Lødemel and Trickey (2000), Sianesi (2004), and Carling and Richardson (2004).

⁵ For a critical review of the Dutch activation measures taken in the field of social security and labor market policy see Van Oorschot (2002) and Van den Berg *et al.* (2004).

The characteristics and results of welfare reforms in other countries are considerably less well-known. This is the case, among others, of the European Latin models. In these countries new welfare designs were introduced some years before reforms were implemented in other OECD countries. By the later 1980s France and other South European countries had put into practice a new social tool trying to reconcile two different objectives: on the one hand, it aims to provide a basic level of economic protection and, on the other, it endeavors to carry out measures to favor life skills and the labor market participation of low-income households ('social insertion'). In France, the so-called *Revenu Minimum d'Insertion* is payable only on the condition that a contract for 'insertion' has been negotiated with the recipient. In Spain, these contracts have been generalized on a territorial base. Thereby, many different kinds of 'insertion contracts' (ICs) have been put into service for welfare recipients, with diverse employment outcomes. In Italy and Portugal, promoting labor insertion while maintaining economic security has also become the primary goal of welfare policy⁶.

After 15 years of development, we still have relatively little insight into what effects are promoting 'insertion contracts' in the self-sufficiency of former welfare recipients⁷. There is, thereby, a need for research that provides a more complete picture of the improvement of welfare leavers caused by these measures. This paper aims to present an assessment of this alternative model (the 'Latin model') for welfare reform in improving the long-term position of former welfare recipients. We focus on a specific welfare program set up with the twofold strategy of cash and insertion benefits. Madrid's *Renta Mínima de Inserción* (IMI) is a standard program within the complex set of national and regional schemes existing in South Europe. Like other European systems, a main difference from U.S. programs is that welfare covers all households. The most distinctive feature is that all recipients must sign an 'insertion' contract. Social workers are obliged to create specific insertion measures for each one of the IMI recipients. We focus on the so-called 'insertion projects', consisting in a gradual mix of job search assistance, training and subsidized jobs. Their aim is to establish

⁶ In Italy, an experimental design of a new welfare scheme combining insertion and income was set up in 1999 (*Reddito minimo di inserimento*). For a detailed review of the possibilities and limits of this new model see Pasquinelli (2002), and Benassi and Mingione (2002). In Portugal, a pilot experience was also initiated in 1997 and has become a nationally effective system. Both financial incentives and 'insertion contracts' were the cornerstone of the new program (Capucha, 1988). Recently, different reforms have been implemented to reinforce the insertion side of the program. Empirical evaluations show a sharp improvement in the measures of poverty intensity and severity (Farinha Rodrigues, 2004).

⁷ An exception for the French experience is Zoyem (2001). He finds that 'insertion contracts' foster exits from welfare to subsidized employment or part-time jobs but with no substantial improvements in competitive employment.

an initial link with the labor market for guaranteeing a better position in the long-term. IMI's longitudinal data are considerably longer than those used in other studies. They include very detailed and precise information, and there are a larger number of observations and fewer biases.

Unlike the specialized literature on the U.S. where earnings and employment results have been a major focus, we evaluate how 'insertion projects' contribute to reducing welfare recidivism. The empirical evidence on recidivism has given rise to an important change of focus in the study of welfare dynamics and to a growing awareness about the importance of designing public intervention more in keeping with these new forms of dependence. The Spanish, French, Italian and Portuguese schemes allow former recipients to return to the programs. One of the huge differences between U.S. and European labor markets for lowincome households is the different pattern of entries and exits, with considerably lower employment rates in Europe for these individuals. So, recidivism rates probably are the most significant indicator of success when analyzing insertion measures. Additionally, much of the debate on welfare reform has focused on self-sufficiency. Recidivism rates are close to an overall notion of welfare dependence. We also analyze the time spent outside the program for participants and non-participants recipients.

The structure of the paper is as follows. The main theoretical grounds are set out in the first section. We turn then to the particular design features of the IMI and 'insertion projects' and review recipiency and recidivism patterns. In the following section, we evaluate the effects of 'insertion projects' on welfare recidivism and the duration of off-welfare spells using propensity score-matching methods. The paper ends with a brief assessment of the effectiveness of these measures in achieving the main goals of welfare independence and self-sufficiency.

2. BACKGROUND

As outlined above, welfare reforms across the OECD countries have taken very different forms. A variety of strategies has been developed under diverse objectives and circumstances. In some countries, work-first strategies have been at the heart of welfare changes. Other countries have opted for longer-term measures including intensive training and human capital investments into traditional welfare programs. One immediate consequence of this diversity is the huge range of possible assessments. Additionally, the burden of collection of evaluation procedures and methods can be extremely large depending on the specificity of the reforms' objectives.

The parameters for an adequate evaluation can also change according to the different economic agents' viewpoints. For the recipients the key question is how utility increases with the new welfare-to-work measures. Participation in intensive training or precompetitive employment is more likely the greater the utility gains in the form of higher employment and earnings opportunities. We would expect lengthened durations of the first welfare spells, but lower recidivism rates. From the perspective of the programs' designers, the key elements can be varied. They include both the promotion of self-sufficiency as a long-standing way of materializing social rights and solidarity principles as well as imperative cost reductions.

This diversity makes necessary both an adequate interpretation of the economic rationale of the welfare strategy under study —'insertion contracts'— as well as an explicit identification of the possible indicators of success.

2.1. The economic rationale for 'insertion contracts'

Over the last decade, evaluations of welfare reforms designed to move welfare recipients into the labor market have increased considerably. An outstanding result of the review of the literature is the mixed and sometimes discrepant findings of empirical studies⁸. As Dyke *et al.* (2004) have shown, broad areas of disagreement exist concerning the effects of the reforms. One reason for this somewhat contrasting evidence is a potential aggregation bias in the evaluation of welfare-to-work programs. Short-term and work-first strategies are usually considered together with human capital and intensive training programs. The economic rationale of these two overall types of measures, however, is very different. Work-first strategies try to push recipients into the labor market as rapidly as possible. On the other, long-term programs focus on human capital developments through intensive training and educational opportunities for recipients⁹. In fact, differential effects are found

⁸ See Cancian *et al.* (1999), Freedman *et al.* (2000), Leahey (2001), Moffitt (2001), Barnow and Gubits (2002), Blank (2002) and Bloom *et al.* (2004).

⁹ Regarding the outcomes of both strategies, there is little evidence that human capital investment programs have resulted in higher earnings or more work hours (Freedman *et al.*, 2000). However, using matching

when considering the results of both strategies within the framework of the same program (Hotz et al., 2000).

While the U.S. has been trying to combine both strategies, the former has been at the heart of its welfare reforms since the mid 1990s. A heavy emphasis has been put on quickly engaging welfare recipients in work activities. Most European welfare systems, however, have made significant progress in shifting to work-oriented assistance schemes through long-term human capital measures. This is the case in most of the 'insertion contracts' (ICs) implemented in some Southern European countries. When recipients sign the application for welfare benefits they must also sign an 'insertion contract' aimed at fostering their self-sufficiency and avoiding long-term dependence. Through linking alternative 'insertion' measures to the recipients' employability levels and life skills a large percentage of individuals become engaged in intensive training and pre-competitive employment initiatives.

Therefore, the ICs concept fits well with the economic rationale for human capital developments in a welfare framework. Its fundamentals revolve around the assertions of market or institutional failures and the existence of imperfect information about available training opportunities and their likely returns, all of them highlighted by Friedlander *et al.* (1997). These reasons make the potential social rate of return on these training investments in welfare programs quite high. The improvement of labor skills should reduce welfare dependence while increasing the recipient's living standards. If enough resources were to be assigned to ICs, these instruments could be socially efficient¹⁰.

However, two possible difficulties emerge when considering the potential success of ICs. First, a common feature of the estimates of the recipients' employability in different countries is the high degree of heterogeneity among the potential beneficiaries of employment-focused strategies. While a certain group of recipients shows labor skills only slightly lower than the competitive market's standard, a non-negligible segment can be characterized as hard-to-employ. In the United States, there is a growing and widespread

methods Hotz et al. (2000) find that in the long-term those who receive intensive training present better results than those who were put into work-first programs.

¹⁰ Obviously, the best way of taking account of societal effects is through benefit–cost analysis. Space constraints prohibit us from covering all the difficulties in developing a complete framework of benefits and costs emerging from these programs. For a comprehensive summary of this topic see the excellent review by Friedlander *et al.* (1997).

concern that families who are currently receiving TANF benefits face multiple and significant barriers to employment, and therefore need more assistance (Pavetti and Strong, 2001). Institut National de la Statistique et des Etudes Economiques (INSEE) data for the French *Revenu Minimum d'Insertion* show that 71.7% of recipients have difficulties with expression in their own language and two-thirds have only primary or lower educational levels. An initial pattern of recipients grouping them into three different categories —no problems entering the labor market in the near term, requiring intensive training, suffering multiple material hardship— noted by different authors at the beginning of the 1990s [Vanlerenberghe (1992), Paugam (1993)] seems still to be present several years later. A similar picture can be observed in Spain, as discussed below. For all these groups the associated costs of training or other intensive human capital initiatives could be especially high.

Second, ICs' contribution to the aforementioned social improvements largely depends on the commitment of recipients to staying long enough in the program-operated training and subsidized employment devices. The opportunity cost of participation could be too high, especially in periods of strong economic growth with higher earnings and employment levels. Low take-up rates or shorter spells than required for adequate fulfillment of the training can considerably limit the scope for IC instruments to foster stable labor transitions.

The widely used standard models of welfare usage do not frequently address the question of participation when human capital investment programs are combined with cash benefits. Moffitt (2002) has extended this framework to take into account training as a condition of welfare receipt. A key issue is whether the program is voluntary or mandatory. If it is voluntary, recipients will participate in long-term training activities if they assign a positive net present value to these investments. In practice, ICs are a mix of voluntary/mandatory components, due to the two-fold nature of both a social right and a condition for accessing to cash benefits. ICs are mandatory in the sense that all recipients must sign a contract, but voluntary in the sense that the contents of these contracts can be negotiated with social workers.

Following Moffitt's (2002) analysis for a two-period model, the individual's participation decision will depend on the net present value of the investment opportunity (NPV):

NPV=
$$-w_1(1-t)I + \frac{1}{1+r} \{P_2[(w_2-w_1)(1-t)H_2] + (1-P_2)[(w_2-w_1)H_2 - (G-tw_1H_2)]\}$$
 (1)

where w_1 represents the wage if the individual were not to undergo the training program, w_2 is the wage in the period two if she/he does, I is the time devoted to investment in period one, H_2 is the number of hours worked in period two, P_2 is a dummy in period two reflecting whether the individual undergoes the program, and G is the benefit amount. If the net present value is positive, a reasonable assumption can be made that the 'insertion contract' will increase the recipient's utility, leading to higher participation in the program.

In short, ICs can be considered as a public attempt at including human capital components in welfare programs. Their potential outcomes will depend both on the feasibility of offering adequate skills to the hardest to employ recipients as well as on the net present value of the hypothetical higher earnings embedded in these investments. A foreseeable result should be that if recipients anticipate higher income levels in the long-term, take-up rates will be high and the duration of the first spell would be longer compared with that of recipients not engaged in intensive training.

2.2. Indicators of Success

Most of the new welfare-to-work programs have been designed to move welfare recipients into the labor market. Attempts to evaluate both work-first and human capital strategies have almost exclusively focused on examining the changes in earnings or employment levels. A key question, however, is to what extent labor market indicators are the best measures for an adequate understanding of the programs' effectiveness in the countries under study.

In practice, evaluation of welfare reforms crucially depends on the indicators chosen to measure the programs' outcomes. As Cancian and Meyer (2004) have stressed, measurement issues are fundamental for an adequate assessment of the reforms' strengths and limits. They find a sizeable sensitivity of conclusions to alternative ways of measuring the success of TANF reforms through independence from Public Assistance, income

poverty and material hardship indicators¹¹. Alternative indicators can only lead to similar conclusions if they measure the same type of processes.

Among the range of options to evaluate the success of ICs, the indicators that suit better the final goals of the programs are those specifically reflecting the notion of 'welfare independence'. In a broad interpretation, independence can be considered as the lack of necessity of income support from the government. Wider definitions should force one to take into account other types of benefits, like those resulting from in-kind programs. Sociological interpretations may even enlarge the scope of the definition. As Lichter and Jayakody (2002) point out, a key question in the evaluation of reforms could be whether they will ultimately attenuate the intergenerational transmission of welfare by promoting work values and traditional families. While the usual economic interpretation of welfare dependence refers to an analysis of the duration of welfare spells, sociological interpretations evoke the existence of a complex set of social and cultural values. For instance, that is how it is set out by Expectancy Models and the Underclass literature. According to these, there are groups that share specific social values, such as the habit of taking part in these programs, as well as a strong inter-generational component that transmits social norms favoring dependence¹².

In this paper, we focus on recidivism patterns as the main parameter for evaluation of the ICs' effectiveness. On one hand, the increase in the number of studies focusing on the dynamics of welfare participation has revealed that a high percentage of recipients return to the programs in the near term¹³. These results have given rise to an important change of focus in the study of welfare dynamics and to a growing awareness of the importance of designing public intervention more in keeping with these new forms of dependence. On the other, the Southern European schemes allow leavers to return to the program if adverse individual shocks drive them out of the labor market. One of the huge differences among American and European labor markets for low-income households is the considerably lower employment rate in Europe for these individuals. A reasonable

¹¹ Substantial differences can also be found when analyzing some of these specific indicators. This is the case of the net income-increasing or poverty-reducing impacts surveyed by Blank (2002). While most studies calculating poverty among welfare leavers find very high rates, the magnitude of the estimated effects considerably diverges.

¹² Different studies confirm transmission across generations of welfare program participation. See Gottschalk (1996) and Pepper (2000).

¹³ See Weeks (1991), Blank and Ruggles (1994), Brandon (1995), Cao (1996), Meyer and Cancian (1996), Harris (1996), Sandefur and Cook (1997), Keng *et al.* (2000) and Ayala and Rodríguez (2004).

assumption could also be made that the probability of returning to the programs for former recipients might be high.

By definition, re-entries into welfare should mirror the non-accomplishment of selfsufficiency objectives. Additionally, when a complete system of administrative data is available subsequent re-entries into the program can be automatically identified as failure in the purpose of avoiding dependence on Public Assistance in the long-term. As discussed below, this kind of longitudinal information on the same households simplifies causal evaluation.

Two different indicators can be considered when regarding reduced recidivism as the success outcome. The most basic measure is to compare recidivism rates among participants and non-participants in the reform under study¹⁴. It is also possible to use a second-best indicator taking into account the time spent outside the program due to previous participation in intensive training activities or other forms of human capital accumulation. Usually the assessment of welfare dependence takes as reference the total time on welfare during a fixed period (Gottschalk and Moffitt, 1994). From this alternative viewpoint, an additional policymakers' objective would not be so much to minimize durations in the program as to maximize the time recipients spend outside it (T^*) developing the cited strategies. Within this new framework, analyzing durations would lead to a hazard function indicating the conditional probability of re-entering the program once the recipient has left it:

$$\lambda^{*}(t) = \lim_{dt \to 0} \frac{\Pr\{t < T^{*} \le t + dt \mid T^{*} > t\}}{dt}$$
(2)

where the numerator represents the conditional probability of re-entering the program within the time interval (t, t+dt) and t represents the moment the first spell ends. The denominator reflects the off-welfare interval's length. The comparison of the hazards of participants and non-participants could help to obtain an accurate indicator of the welfare independence gains fostered by ICs.

¹⁴ The impact of welfare reforms on recidivism has also been studied for the U.S. Carrington *et al.* (2002) use Missouri's data to examine the dynamics of employment and welfare recidivism for welfare leavers.

3. THE IMI PROGRAM

3.1. Institutional features of the IMI program

The program analyzed in this study is the Madrid Regional Government's Minimum Income program (IMI), which was set up in 1990. The reason for selecting a regional program is the completely decentralized nature of Social Assistance in Spain. This disparity causes the lack of homogeneous data on regional recipiency and reforms. As a result, the best approach to analyze the strengths and limits of welfare reforms is to focus attention on a mean experience among the different schemes. The IMI is an 'average' program within the complex set of regional schemes existing in Spain, which would allow some conclusions to be extrapolated to other regional programs. It also stands out nationally in the large scale 'insertion activities' are developed.

Potential claimants can apply for benefits only if they have used up entitlement to other income maintenance programs. Like other European systems, the main difference from U.S. programs is that welfare covers all households. IMI access is not only allowed to female lone-parent households, but also to couples without children, single individuals or male-headed families. Eligibility conditions are restricted to an upper age limit (65 years of age, at which age claimants can benefit from the national non-contributory pension scheme) and a lower age limit (25 years of age, except for claimants with dependent children). Along with these, in order to prevent the formation of fictitious family units solely aimed at receiving the benefit. Another legal requirement is that of being officially registered in the Madrid region as a resident. This requirement is compatible with people of other nationalities claiming the benefit.

The dual problem of a highly decentralized system that denies the regions reasonable budgetary resources, added to the residual role of minimum income in the general Social Assistance framework, has caused benefits to be considerably lower than in other European countries. Households receive income support insufficient to lift them over the poverty threshold¹⁵. Nominal benefits for single-person households were 300 euros in 2003. This amount is also far below the minimum wage. More relevant is the amount for

¹⁵ Adequacy rates, defined as the ratio of benefits over poverty thresholds, are 57.8%, 37.6% and 35.1% for people living alone and couples with one and three children, respectively.

three-people households as they are the modal value of the frequency distribution according to the household size. These benefits are 45% higher than those of single-person households, but they do not seem enough. Additionally, real benefits decreased over the period studied because there was no updating of the amounts in some of the years considered. During the last stage of the program's development, however, there was an improvement in benefits helping to close the distance from the minimum wage. Most welfare programs in Spain tax 100% of other social benefits as well as earned incomes¹⁶. However, the IMI introduced some exceptions to encourage labor market participation, such as the compatibility of earnings and benefits during some months, or the decision not to consider specific means-tested benefits for elderly household members in determining household benefits. Benefits are granted for one year, automatically renewable.

The evolution of the program's caseload has been marked by the three-fold influence exerted by changes in macroeconomic conditions, reforms made to its main parameters and changes introduced to the national unemployment benefit system, the last safety net preceding the minimum income program¹⁷. The logical initial growth of the program in the first half of the 1990s coincided with a sharp increase in the region's unemployment rate and the restrictive reforms that limited entitlement to unemployment benefits. During the last three and a half years of the 1990s, the figures tended to decrease, which was essentially due to an increase in employment levels. The program's most important reform took place in 2002. It converted minimum income into a subjective right and widened its scope of coverage, thus leading to a large increase in the figures.

Monitoring the flow of entries into and exits from the program is possible because of a wide base of administrative records. Cleaning these records allows us to have information on over 50,000 spells in the program, corresponding to slightly more than 39,200 households. Of these, 8,500 have left the program at some stage and then re-entered it at least once. Having administrative records available to study re-entries provides many advantages. These include very detailed and precise data, a larger number of observations and fewer biases than in surveys. Additionally, we have the complete history of the program since the beginning until 2001. To the extent that no previous welfare schemes

¹⁶ A similar problem is found in the French Revenu Minimum d'Insertion (Gurgand and Margolis, 2005).

¹⁷ Demographic shifts and institutional reforms had the greatest weight among all these factors (Ayala and Pérez, 2005).

were designed for this population, we avoid the usual left-censoring problems in the dynamic analyses of welfare.

The IMI database resulting from the cleaning of administrative data provides detailed information on each household's specific characteristics. These include some of the variables various studies have highlighted as ideal for analyzing welfare populations (Mainieri and Danziger (2001), Goerge and Joo Lee (2001)), such as the existence of structural problems (social isolation, alcohol abuse and drug addiction) or the development of behavior associated with marginal situations like prostitution or begging. As discussed above, there is a widespread concern that some of these groups face significant barriers to employment. They will need more human capital investments to move from welfare to self-sufficiency and work than other recipients.

A descriptive analysis of the IMI data allows us to give a preliminary assessment of the characteristics of recipients. Table 1 differentiates between the households that completed a spell in the program at some time between 1990 and 2001 and the households that are presently receiving benefits. Almost fifty thousand spells are available, which are divided into the approximately 42,000 observations that correspond to already closed claimant files and 7,500 ongoing participants.

Table 1	
Socio-Economic Characteristics of IMI Recipients	
(frequency distribution)	

	Completed spells	Ongoing spells
		0 01
AGE		
<26	6.7	11.4
26–35	30.9	29.5
36–45	28.7	26.5
46–55	18.0	19.6
56-65	15.7	12.9
GENDER		
	10.0	
Male	40.3	34.2
Female	59./	65.6
HOUSEHOLD SIZE		
1	25.0	22.4
1 person	25.8	55.4 21.1
2 people	20.6	21.1
s people	20.2	18.0
4 people	15.5	12.1
5 people	8.9	/.6
6 people	4./	3.9
7 people	2.2	1.9
8 or more people	2.0	1.3
HOUSEHOLD TYPE		
C' 1	25.0	22.4
Single person	25.8	55.4 27.6
Other have a large that a large	51.0 20.1	37.0 12.0
Other households with children	20.1	12.0
	22.3	17.0
EDUCATION		
Does not read or write	10.3	13.6
No academic qualifications (only reads and writes)	20.6	21.6
Primary Education	20.0 36.7	35.5
Middle School Education	18.1	15.8
Secondary Education	6.6	6.6
Level 1 Vocational Training	2.0	2.3
Level 2 Vocational Training	17	1.5
University Degree	1.7	1.4
Post-Graduate Degree	1.5	1.5
LABOUR FORCE STATUS	1.5	1.0
Employed	18.0	13.5
Unemployed	59.1	69.0
Inactive	22.9	17.5
EMPLOYABILITY		
Totally unfit for normal work	9.6	8.0
Needs process of social / health recuperation	23.8	37.3
Unemployed needing training / education	21.1	25.4
Could access employment now	32.4	21.3
Does work on hidden economy or equivalent activity	8.3	7.0
Does normal work or equivalent activity	4.8	1.1
· · · ·		

Table 1 (continued)

SOCIAL PROBLEMS ¹		
		1
Drug abuse	5.0	6.0
Alcohol abuse	4.8	4.7
Other mental health problems	8.8	10.9
Other serious health problems	14.9	18.1
Non-payment of dwelling	6.3	7.0
Debt accumulation	9.7	9.4
Beggary	0.8	1.2
Prostitution	0.4	0.7
Social isolation	10.8	15.9
Ethnic minority	11.7	23.2

¹The categories appearing in social problems are non-excluding dummy variables. A household can therefore suffer from more than one problem. The figures show percentages of recipients affected by each problem.

The data on age show a larger presence of middle-aged individuals among household heads (Table 1). Concerning the differences between completed and ongoing spells, the lower proportion of young people and the greater presence of individuals over 55 in the former stand out. This is because of the transfer of recipients to the national non-contributory pension scheme at the age of 65. Frequencies of recipients' gender suggest that the program has been increasingly used by women, who represent almost two-thirds of current spells and around 60% of completed spells. Regarding household size and type, small households stand out in general. People living alone make up a third of total households is also striking, accounting for almost 40% of all cases. As expected, educational levels are low as shown by the huge percentage of recipients whose highest attainment is primary education. However, no straight inferences should be made regarding the possibilities for finding a job. Employability frequencies reveal that a non-negligible segment of recipients could access employment now¹⁸.

A set of variables provides information on different social problems that accompany the lack of income. Five types of social problems stand out among IMI recipients. The first is related to health problems, be they general health problems or those derived from the consumption of drugs and alcohol, as well as from mental illnesses. Another group

¹⁸ Employability is a variable defined by social workers the first time future clients apply for benefits. It takes the lowest level if there are no possibilities of working because of physical deficiencies and a maximum level if recipients could be already in the labour market.

constitutes social pathologies arising from insolvency in situations of debt, including nonpayment for dwellings. A third problem involves belonging to an ethnic minority¹⁹. There is also a large percentage of recipients suffering from severe mental health problems that limit their chances of becoming economically self-sufficient. A final problem is the development of behavior associated with social alienation, such as begging or prostitution, although these groups are not really relevant in quantitative terms.

3.2. The Dynamics of the IMI program

Available data allow us to make a preliminary approach to the dynamics of the program. Duration and recidivism indicators will be considered as the IMI's outcomes in the evaluation exercises. One of the main strengths of the database is the length of the period that can be studied (135 months), longer than in most analyzes focused on recidivism and policy evaluation. This allows us partially to overcome the data constraints that have traditionally limited evaluation exercises of long-term reforms. The previously mentioned lack of left-censored information is important. We have data covering the whole history of the program with information for each recipient recorded twice a year.

However, the fact that the administrative records were designed to cover management needs makes it necessary to clean and re-sort the data. Different administrative files have been merged, original variables have been treated by cross checking fields, control variables have been added and new variables have been created in order to make the information suitable for the study's aims. In order to build up a suitable file to analyze the program's dynamics, it was necessary to make different assumptions and adopt alternative decisions concerning how to define entries into and exits from the program. After eliminating inconsistencies in the dates recorded, the moment the first benefit was paid out was considered as the entry date into the program. The exit date was considered as the last date an annotation was made on the claimant's monitoring file.

¹⁹ Belonging to an ethnic minority is not in itself a social problem. It is regarded as such in so far as belonging to an ethnic minority limits a person's possibilities of social integration. Most individuals classified into this group are Gypsies.

	Completed spells	Ongoing spells
< 1 year	6.1	16.6
1 to 2 years	60.8	37.5
3 to 4 years	16.2	13.0
5 to 6 years	8.6	11.3
7 to 8 years	3.9	6.9
9 to 10 years	2.0	5.6
> 10 years	2.3	9.3
TOTAL	100.0	100.0

Table 2Distribution of Spells

Table 2 presents the estimated durations of completed and ongoing spells. In the case of spells that have ended, the data reveal a notable concentration of recipients in shorter time intervals. The ongoing spells show a profile that is relatively similar, although there are some differences. Though the percentages are higher in the first two intervals, the figures are lower than those of the first column, while just the opposite happens with longer-term spells. Durations are considerably lower than the ones estimated for other countries. Nevertheless, any inferences should be made with great care. On the one hand, the program has been in operation for a relatively short time, making it difficult to compare with programs that have been going on for a much longer time. On the other, the institutional characteristics of these programs differ considerably, particularly the aforementioned IMI low benefit levels.

Previous studies have pointed out that belonging to an ethnic minority and employability are the main determining factors leading to lengthened spells, and parametric estimations of duration yield a certain degree of duration dependence (Ayala and Rodríguez, 2003). These results show that there are different kinds of recipients depending on their possibilities for entering the labor market. These need to be dealt with differently. If an important segment of households accesses the program temporarily, the best course of action for them is to ensure a basic level of income rather than paying out large sums for training purposes, because of the likelihood that they will leave the program in the shortterm. For very different reasons, the same solution also seems to apply for people who are totally unfit for employment.

A second important issue in the analysis of the program's dynamics is the probability of recipients returning to it in the short and long-term. As stated above, that an important core of recipients has intermittent spells obliges managers of the program to redefine their functions and objectives. If re-entries reach a sufficiently large number, the objective of policymakers should be re-oriented from maximizing exits or minimizing the duration of spells to reducing re-entries or maximizing the time recipients spend outside the program. Recipients can be grouped into different categories according to the timing and duration of the spells in the program. We define as recidivist those recipients whose information appears more than once, including those censored at the moment data gathering was closed. Leavers are those who registered only one spell in the program that lasted 24 months. Finally, stayers are those who only had one spell in the program that lasted 24 months in the program). There would also be another group covering censored observations that cannot be classified as either recidivist or stayers.

Type of Recipient	Frequency	Percent
Stayers	14725	37.5
Leavers	13868	35.3
Recidivist	8517	21.7
Others	2128	5.4
TOTAL	39238	100.0

Table 3 Types of Recipients

As can be observed in Table 3, the percentage of households that re-enters the program is somewhat more than a fifth of the total. The incidence of recidivism is also lower than the rates obtained in other countries. More than a third of the households that entered the IMI left it never to return, at least during the period of observation. A similar percentage of recipients had long-term spells and a large part of the program's spending was concentrated on this group. Previous research has also provided information on the IMI's recidivism determinants (Ayala and Rodríguez, 2004). According to these results, measures to maximize the duration of the off-welfare spells should focus on implementing reforms that would improve recipients' chances of leaving the program to enter into more stable forms of employment and allocating a greater amount of resources to promote the insertion of specific groups.

3.3. Insertion projects'

A last set of comments refers to the 'insertion side' of the IMI. Among the different institutional features of the program the aforementioned 'insertion contracts' constitute its most prominent trait in a comparative framework. Once benefits have been approved by the program's managers recipients must sign an 'insertion contract' with the social service centers. Initially, these contracts are intended to improve the recipients' self-sufficiency through an individualized design of insertion measures adjusted both to individual and households' characteristics. The primary foundation is the idea of co-responsibility. Both social workers as well as recipients must deal with the primary goal of jointly searching the routes to welfare independence. The contents of the contracts are negotiated by both sides fixing a final plan of specific public intervention for each household. Individual assessment is conducted when recipients enter the program and social services support is provided to help these households address specific and family challenges.

Among the wide range of insertion strategies, a broad classification can be made breaking down the existing measures into two categories: measures targeted at the improvement of life skills and measures specifically aiming to increase the employment opportunities of recipients. The first set of measures includes overall actions developed to guarantee the basic pre-conditions of social participation: general life skills, family stabilization, children's schooling, etc. They try to achieve a balance between easing and accommodating barriers to employment. Among the latter category 'insertion projects' stand out as the most important public attempt at including human capital components in these welfare programs. Under this category can be included a very diverse group of actions targeted at the improvement of the labor market opportunities of recipients. These projects are undertaken not only by government agencies, but also an important percentage is managed by non-profit associations. In this sense, their development represented a major shift both in the traditional functioning of social workers as well as in the opening of new roles for non-profit organizations specialized in working with disadvantaged populations.

'Insertion projects' vary along a number of dimensions. They can be grouped into three classes: widely targeted labor services, intensive training, and social enterprises. The common purpose of these actions is the achievement of basic labor skills and the establishment of a friendly work environment as necessary first steps in the transition to competitive employment. Social enterprises are relatively similar to some of the experiences embedded in the U.S. paid work experience programs²⁰. Basically, they are program-operated businesses employing individuals who would otherwise be unemployed. Social support is provided primarily through on-site work supervision and prior intensive training. Sometimes these enterprises serve to provide a transition experience leading to more stable positions into the labor market in the long-term. Nevertheless, some recipients see them as a final destiny, finding transition to competitive employment impossible.

In addition to the potential employment and self-sufficiency improvements, a strong point of these new tools is the link with local labor markets and the processes of endogenous growth. They also mainly focus on different social interest areas. Therefore, public intervention targeted at low-income households can give room for positive externalities. However, most of these economic activities can be characterized as labor-intensive while they are affected by low productivity levels. In practice, many of them have serious problems for achieving a minimal share in competitive markets. An additional drawback results from a potential practice of reserving some of these projects for the more skilled recipients among potential participants. While this risk of 'creaming' strategies is present in other welfare models [Barnow (1992), Anderson *et al.* (1993)], the scarce empirical evidence available only shows a moderate incidence in the IMI case (Ayala *et al.*, 2004). A more visible pitfall is the low proportion of participant recipients. While all claimants must sign an insertion contract, only 6.5% take part in 'insertion projects'²¹.

 $^{^{20}}$ See Pavetti and Strong (2001) for a detailed description of the type of social enterprises developed in the framework of welfare reforms in the U.S.

²¹ The database includes 2,070 participants in 'insertion projects' and 29,422 'non-participants'.

Available data on the participants' socioeconomic characteristics allow us to confirm or put into question some of the aforementioned limits. The average age of participants is lower than that observed both for ongoing recipients and those who completed a spell. This is a coherent result to the extent that income maintenance is the basic function of the program for the oldest cohort. When reaching the 65 years old age limit they can benefit from the national non-contributory pension scheme. There are no remarkable differences by gender and neither the type nor size of the household appears to be a discriminating factor for participation.



Figure 1 Frequency Distribution of Participants in 'Insertion Projects' (Employability Levels)

On the contrary, educational and employability levels stand out as the variables whose frequency distributions for participants and total recipients differ most widely. The percentages corresponding to the lowest educational levels (do not read or write and no academic qualifications) are clearly small among participants. Especially striking are differences concerning employability data. Figure 1 plots the corresponding frequencies for completed spells, ongoing spells, and participants in 'insertion projects'. The proportion of recipients totally unfit for normal work or needing an intense process of social or health

recuperation is clearly lower in the participants' case. In a certain sense, this is also a foreseeable result since insertion actions for households affected by these problems should focus on acquiring a basic level of life skills. However, this does not help the data avoid potential selectivity biases causing potential problems for causal evaluation of the projects' effectiveness. Fortunately, the richness and quality of the data will allow us to take into account non-random participation by means of appropriate matching estimators.

4. A CAUSAL EVALUATION OF ICs

4.1. Methodology

As discussed above, ICs evaluation may be implemented taking welfare independence indicators as possible outcomes. Two key outcomes are the probability of returning to the program (recidivism rates) and the duration of the off-welfare spells for those recipients participating in 'insertion projects'. In the framework of the human capital model reviewed in previous sections, whether these participants also show higher durations in the first spell into welfare can also be tested.

The question of which are the major outcomes in terms of independence or economic selfsufficiency leads us to choose a particular method of evaluation. We consider the results of participation in 'insertion projects' as the treatment effect. The primary treatment effect we analyze is the expected treatment effect for the treated population:

$$\tau = E(Y_{1} - Y_{0}|\mathbf{D}=1) = E(Y_{1}|\mathbf{D}=1) - E(Y_{0}|\mathbf{D}=1)$$
(3)

where Y_i denotes the outcome for individuals engaged in 'insertion projects', Y_0 denotes the outcome if these individuals were not exposed to the treatment, and $D_i \in \{0,1\}$ is an indicator of this participation.

A well-known problem of causal inference is how to estimate treatment effects in observational studies in situations where some individuals are exposed to a treatment, but with no methods of experimental design to get a control group. As pointed out before, participation in 'insertion projects' is not completely random. A counterfactual is needed to estimate $E(Y_{d}|D=1)$, the outcome participants would have experienced on average had they

not participated. The past decade has witnessed an explosion of welfare evaluations using matching econometric estimators that can partially solve the problem. A literature based on direct comparisons of experimental and non-experimental findings has shown the strengths and limits of non-experimental causal studies²². In general terms, matching methods have been highlighted as producing valid estimates of program impacts.

The fundamental basis of matching evaluation is to re-establish experimental conditions when no such data are available. It is possible to build up a sample counterpart by pairing each participant in 'insertion projects' with non-participant recipients. A necessary assumption is conditional independence between non-treated outcomes and program participation (Rubin, 1977):

$$Y_{o} \perp D \mid X \tag{4}$$

This assumes that conditioning on observable covariates (X), the outcomes of the nontreated are independent of the participation status. We can select from the non-participants a control group in which the distribution of observed variables is as similar as possible to the distribution in the participants group. This requires:

$$0 < \Pr(D=1|X=x) < 1 \qquad \text{for } x \in \widetilde{X} \tag{5}$$

and guarantees that all treated recipients have a counterpart in the non-treated group²³.

The limitation for matching is that it relies on a sufficiently rich comparison group. As the number of observable covariates increases, there are growing problems for finding exact matches for each of the treated units. In a seminal study, Rosenbaum and Rubin (1983) suggested the use of the probability of receiving treatment conditional on covariates (propensity score) to reduce the dimensionality of the matching problem. If the propensity score is known the average effect of treatment on the treated (ATT) can be estimated as:

²² The seminal contribution of LaLonde (1986) gave rise to an abundant literature comparing the effects on trainee earnings of an employment program run as a field experiment with the estimates that econometric methods without experimental data might have produced. Dehejia and Wahba (1999, 2002), and Smith and Todd (2004) use the same data from the National Supported Work Demonstration to test propensity score matching estimators.

²³ These assumptions have been widely justified in different studies. See Rubin (1977), Rosenbaum and Rubin (1983), Angrist *et al.* (1996), Smith (2000), Becker and Ichino (2002), and Frolich (2004).

$$\tau = E\{E\{Y_{t}|D=1, p(X)\} - E\{Y_{t}|D=0, p(X)|D=1\}\}$$
(6)

where p(X) is the propensity score. To derive (6) from (3) requires an adequate balancing of pre-treatment variables:

$$D \perp X \mid p(X) \tag{7}$$

As stressed by Becker and Ichino (2002), if this balancing hypothesis is satisfied, observations with the same propensity score must have the same distribution of observable characteristics independently of treatment status. This means a random exposure to treatment and control, and treated units should be on average observationally identical. In practice, matching on the propensity score is essentially a weighting scheme (Heckman *et al.*, 1998).

Propensity score matching has become the most popular estimator in the recent evaluation literature. As Dehejia and Wahba suggest (1999) propensity score methods can be more effective than parametric models in controlling for observed differences in the evaluation of employment and training programs. Nevertheless, their drawbacks have also been outlined by different authors²⁴. It may be the case that the matching process leads to a considerable loss of observations and that the more detailed the information is, the harder it is to find a similar control.

We use propensity score matching to evaluate the outcomes of the participation in 'insertion projects'. First, to estimate the score, we estimated a probit model with the covariates predicting participation in 'insertion projects':

$$Pr\left\{\mathsf{D}=1\mid X\right\} = \Phi\left\{h(X)\right\} \tag{8}$$

where h(X) is a starting specification that includes all the covariates as linear terms. Fourteen covariates were included in the initial specification: the household head's age, employability, number of social problems, educational level, household size, number of children, and different dummy variables indicating the recipient's gender, whether it is a

²⁴ See Blundell (2000), Smith and Todd (2004), and Imbens (2004).

lone-parent household, an individual living alone or belonging to an ethnic minority, mental health problems, prostitution, non-payment for dwellings and drug consumption.

Data were sorted according to estimated propensity score, ranking from lowest to highest, in order to define a comparison group for each treated individual. The next step was to create subclasses with similar propensity scores. The subclasses (quintiles) were checked until balance was achieved with a final region of common support including 18,756 cases. Different weighting procedures were selected for associating the set of non-treated observations with each participant in 'insertion projects'. In order to find a weighted average of the outcomes of more non-treated recipients, we opted for smoothed weighted matching estimators. More precisely, we use kernel matching estimators, given by:

$$\tau^{K} = \frac{1}{N^{T}} \sum_{i \in T} \left\{ Y_{i}^{T} - \frac{\sum_{j \in C} Y_{j}^{C} G\left(\frac{p_{j} - p_{i}}{h_{n}}\right)}{\sum_{k \in C} G\left(\frac{p_{k} - p_{i}}{h_{n}}\right)} \right\}$$
(9)

where T denotes the set of treated units, C the set of control units, Y_{i}^{T} and Y_{j}^{C} are the observed outcomes of the treated and control units, respectively, $G(\cdot)$ is a kernel function, and b_{n} is a bandwidth parameter.

To test the sensibility of the ATT to the chosen estimators we also used a nearest-neighbor matching estimator, which selects the comparison units such that:

$$|p_i - p_j| = \min_{k \in \{D=0\}} \{ |p_i - p_k| \}$$
(10)

and a caliper matching estimator, where for a pre-specified $\delta > 0$ treated unit *i* is matched to a non-treated unit *j* such that:

$$\delta > |p_i - p_j| = \min_{k \in \{D=0\}} \{ |p_i - p_k| \}$$
(11)

Figure 2 plots the histogram of the propensity scores for the IMI records. The horizontal axis displays the cumulative units from lowest to highest propensity scores and the vertical axis shows the propensity scores of the treated and control units. The solid and dashed

lines largely coincide. The matching is especially high in those units with the highest propensity score.





4.2. Results

The availability of matched observations allows the comparison between the outcomes of treated and control units. As discussed above, two indicators of success are used for the assessment of the effectiveness of 'insertion projects': first, the differential effects on recidivism rates, and second, survival times outside the program for recidivist recipients. Additionally, we also test if treated recipients spend more time in the programs, in line with the assumptions of the human capital welfare models.

Turning to the last of these questions, Figure 3 depicts the hazard ratios for treated and controls when the first spell in the program is taken into account. An intuitive way of estimating the probability function of leaving the IMI resides in using non-parametric

methods like the Kaplan–Meier estimator. Recipients may leave the program in different periods, $t_1 \le t_2 \le \dots \le t_k$. In each period t_j , there are n_j households that remain in the program and d_j households that leave it. The Kaplan–Meier (KM) estimator is defined as follows:

$$\hat{S}(t) = \prod_{j \mid t_j \le t} \left(\frac{n_j - d_j}{n_j} \right)$$
(12)

In order to represent the program's hazard functions resulting from the application of the estimator, we chose to apply a kernel smoothing procedure. The algorithm put forward by Ramlau-Hansen (1983) was used because of its properties to estimate hazard functions²⁵.



Figure 3 Kernel Smoothed Hazard Function for IMI recipients (First Spell)

In keeping with the theoretical arguments set out above, controls unequivocally show higher hazard rates than treated units. The reason for this is that pre-competitive

²⁵ The filter is defined as $\hat{\lambda}(t) = \frac{1}{b} \int_0^1 K\left(\frac{t-s}{b}\right) d\hat{\beta}(s)$, when b > 0.

employment and intensive training activities require long participation spells. It appears that recipients taking part in 'insertion projects' assign at present a net positive value to these initiatives of welfare designers. Figure 3 also shows that while the treated units' hazard rate is well below the controls', there are markedly different profiles. While the hazard rate for controls decreases monotonically with time, the hazard function for treated units first diminishes and then increases. This last result also appears in line with the idea of possible transitions to the labor market once the participants have spent enough time in an 'accessible work environment'.

The key results, however, for providing an answer to the question of whether ICs promote economic independence are related to the participants' recidivism patterns. As was set out above, the most basic independence measure results from comparing the recidivism rates of recipients participating in 'insertion projects' with the rates of recipients who do not. The estimated ATT and associated standard errors appear in Table 4. Most of the matching algorithms yield similar results. On a substantive level, our estimates of the 'insertion projects' effects on recidivism show an unambiguous result: recidivism is considerably lower in treated households.

	АТТ	N. Treated	N. Controls	Standard Error
Kernel Matching Estimator	-0.227	1289	17467	-
Nearest Neighbor Matching Estimator	-0.241	1289	13596	0.036
Caliper Matching Estimator	-0.240	1289	13596	0.036

Table 4Average Effect of Treatment on the Treated (ATT)

Therefore, results give general support to the notion that 'insertion projects' contribute to promote the participants' self-sufficiency. The probability of future welfare usage decreases in a range of 22.7–24.1%. This evidence suggests that ICs have made low-income households less dependent on government and more self-sufficient due to the

development of intensive training and friendly labor environments. It appears that some of these recipients have received satisfactory targeted skills upgrading and have obtained adequate initial jobs for sustaining employment over time.

However, most of the newly employed are in low-wage jobs. We should expect that, in the medium or long term, some welfare leavers will lose their jobs or be affected by limited upward mobility²⁶. In that case, a probably large slice of leavers will again demand welfare benefits. Therefore, a second-best public objective could be lengthening, as much as possible, survival times outside the program. A precise estimation of durations of the recidivist recipients' post-program spells may help to clarify the overall effects of the projects.



Figure 4 Kernel Smoothed Re-entry Hazard Function

Figure 4 shows recidivism hazard rates for treated and controls. We also use here the Kaplan–Meier estimator and an optimal kernel smoothing. We find that there are striking differences in the two profiles. Both curves moderately grow until reaching 50 months

²⁶ This is not necessarily a bad outcome. Working steadily, even during short time periods, could improve future employment opportunities.

outside the program, and profoundly diverge thereafter. The conditional probability of coming back to the program is systematically higher in the case of controls.

In short, both lower recidivism rates and longer off-program spells indicate that 'insertion projects' are helping to foster self-sufficiency and welfare independence. These positive results in the selected success indicators must be jointly considered with the already quoted improvement in the performance of the social service centers and the greater involvement of non-profit organizations in the development of these projects. All these features allow us to assess the value of these welfare tools as highly positive.

However, such a conclusion must be interpreted cautiously. In addition to the inherent drawbacks of matching methods, there are two additional caveats to these results. First, attention is focused on mean impacts. Average effects may mask the diverse experience of welfare recipients participating in 'insertion projects'. New data and further research are needed for a more complete picture of heterogeneity across recipients in the sign and magnitude of the estimated effects²⁷. Second, there is also a certain heterogeneity in the very notion of 'insertion projects'. Theoretically, the foreseeable effects of general training are different from those corresponding to participation in social enterprises. If more accurate data were available, the standard model of only two states should be extended to the case of multiple states²⁸.

 ²⁷ Some studies consider this heterogeneity in the evaluation of U.S. welfare reforms. See Bitler *et al.* (2003).
 ²⁸ Imbens (2000) and Lechner (2002) have handled the issue of treatment heterogeneity in evaluation on the basis of propensity score matching.

5. CONCLUSION

Since the late 1980s most South European countries have put into practice new social devices reconciling the two-fold purpose of providing a basic level of income and carrying out measures to favor the labor market participation of low-income households. The key element of these changes is the institutionalization of 'insertion contracts' for welfare recipients. These contracts can be considered as a public attempt at a more intensive human capital component in welfare programs. As a result, higher utility gains from the programs can be derived by recipients while positive externalities could contribute to higher levels of social well-being.

In this paper, a specific experience of 'insertion contracts' has been analyzed. Madrid's IMI provides considerable advantages for an adequate evaluation of welfare-to-work programs. Longitudinal data are considerably longer than those used in other studies and can serve to take into account the long-term effects of human capital designs. They also include very detailed and precise information, and a larger number of observations and fewer biases than other sources. These data have been used to answer two fundamental questions: to what extent do 'insertion projects' contribute to reduce recidivism rates, and are there substantial differences between survival times outside the program for treated and non-treated households? Different matching estimators were used to re-establish experimental conditions.

From the methodological side, our results suggest that a variety of estimators produce estimates of 'insertion projects' effects that are quite similar. The paper tests the extent to which the results are sensitive to alternative estimators, finding very comparable results. Both recidivism rates as well as the duration of off-welfare spells suggest potentially successful interventions. Recidivism is considerably lower in treated households giving general support to the notion that 'insertion projects' contribute to promote the participants' self-sufficiency. Additionally, the estimated hazard for recidivist recipients of the conditional probability of coming back to the program is systematically higher in the case of controls. Unequivocally, the empirical evidence suggests that these public instruments have made low-income households less dependent on government and more self-sufficient because of the development of intensive training and the setting of a friendly labor environment. Therefore, if recidivism is a serious problem limiting the effectiveness of welfare programs, the coherent design of 'insertion projects' could serve as an appropriate strategy for improving their results. In the IMI case, there is still a large margin to take advantage of these potential gains, as the number of participants in 'insertion projects' is small.

However, there is a need for research to provide a more complete picture of the strengths and limits of this type of welfare development. Two major research lines promising new insights about the effectiveness of 'insertion contracts' might entail, firstly, a deeper analysis of the heterogeneity across recipients in the estimated effects, and secondly, investigation of the heterogeneity in the measures grouped under the notion of 'insertion projects'. As new data are available, a more detailed analysis could help to clarify some of the estimated effects.

Bearing these caveats in mind, our results contribute to including the 'Latin model' in the range of welfare reforms available for implementing consistent strategies trying to obtain higher employment rates and self-sufficiency of welfare recipients. Depending, logically, on national singularities and constraints, these results could be encouraging for the assessment of other regions and countries.

References

Anderson K.H., Burkhauser, R.V. and J.E. Raymond, 1993. The Effect of Creaming on Placement Rates Under the Job Training Partnership Act. *Industrial and Labor Relations Review* 46, 613–624.

Angrist, J.D., Imbens, G.W. and D.B. Rubin, 1996. Two-Stage Least Square Estimation of Average Causal Effects in Models with Variable Treatment Intensity. *Journal of the American Statistical Association* 90, 468–472.

Ayala, L., Pedraja, F., and F. Salinas, 2004. Assessing the Efficiency of Spanish Social Service Centers: a Data Envelopment Analysis. *Empirical Economics Letters* 3, 194–205.

Ayala, L. and C. Pérez, 2005. Macroeconomic Conditions, Institutional Factors and Demographic Structure: What Causes Welfare Caseloads? *Journal of Population Economics* 18, 3/05.

Ayala, L. and M. Rodríguez, 2003. La duración de los programas de lucha contra la pobreza. Instituto de Estudios Fiscales, Madrid.

Ayala, L. and M. Rodríguez, 2004. Multiple Occurrence of Welfare Recipiency: Determinants and Policy Implications. Instituto de Estudios Fiscales, *Working Paper* 13/2004.

Barnow, B.S., 1992. The effects of Performance Standards on State and Local Programs. In: Manski, C.F. and I. Garfinkel (Eds.), *Evaluating Welfare and Training Programs*. Harvard University Press, MA: Cambridge.

Barnow, B. and D.B. Gubits, 2002. Review of Recent Pilot, Demonstration, Research and Evaluation Initiatives to Assist in the Implementation of Programs under the Workforce Investment Act. U.S. Department of Labor.

Becker, S.O. and A. Ichino, 2002. Estimation of Average Treatment Effects Based on Propensity Scores. *The Stata Journal* 2, 358–377.

Benassi, D. and E. Mingione, 2002. Welfare loale, lotta all'exclusione social e riforma dell'assitenza in Italia. *Economia e Lavoro* 36, 79–95.

Bitler, M.P., Gelbach, J.B. and H.W. Hoynes, 2003. What Mean Impact Miss: Distributional Effect of Welfare Reforms Experiments? *NBER Working Paper* n°10121.

Blank, R.M., 2002. Evaluating Welfare Reform in the United States. *Journal of Economic Literature* 40, 1105–1166.

Blank, R. and P. Ruggles, 1994. Sort-Term Recidivism among Public Assistance Recipients. *American Economic Review* 84, 49–53.

Bloom, H.S., Michalopoulos, C., Hill, C.J., and Y. Lei, 2004. Can Nonexperimental Comparison Group Methods Match the Findings from a Random Assignment Evaluation of Mandatory Welfare-to-Work Programs? *The Review of Economics and Statistics* 86, 156–179.

Blundell, R., 2000. Evaluation Methods for Non-Experimental Data. Fiscal Studies 21, 427-468.

Blundell, R. and C. Meghir, 2002. Active Labour Market Policy vs. Employment Tax Credits: Lessons from Recent UK Reforms. *Working Paper* 2002:1, Institute for Labour Market Policy Evaluation.

Brandon, P., 1995. Vulnerability to Future Dependence Among Former AFDC Mothers. Institute for Research on Poverty, *Discussion Paper* no. 1055-95.

Cao, J. 1996. Welfare Recipiency and Welfare Recidivism. Institute for Research on Poverty, *Discussion Paper* no. 1081-96.

Cancian, M., Haveman, R., Kaplan, T., Meyer, D.R., and B. Wolfe 1999. Work, Earnings and Well-Being After Welfare. In: Danziger, S. (Ed.), *Economic Conditions and Welfare Reform*. MI: W.E. Upjohn Institute Employment Research.

Cancian, M. and D.R. Meyer 2004. Alternative Measures of Economic Success among TANF Participants: Avoiding Poverty, Hardship, and Dependence on Public Assistance. *Journal of Policy Analysis and Management* 23, 531–548.

Capucha, L., 1998. Rendimento Mínimo Garantido: Avalição da Fase Experimental. CIES, Lisboa.

Carling, K. and K. Richardson, 2004. The Relative Efficiency of Labor Market Programs: Swedish Experience from the 1990s. *Labour Economics* 11, 335–354.

Carrington, W.J., Mueser, R. and K.R. Troske, 2002. The Impact of Welfare Reform on Leaver Characteristics, Employment and Recidivism. *IZA Discussion Paper* n° 561, Bonn.

Dehejia, R.H. and S. Wahba, 1999. Causal Effects in Nonexperimental Studies: Reeevaluating the Evaluation of Training Programs. *Journal of the American Statistical Association* 94, 1053–1062.

Dehejia, R.H., and S. Wahba, 2002. Propensity Score-Matching Methods for Nonexperimental Causal Studies. *The Review of Economics and Statistics* 84, 151–161.

Dyke, A., Heinrich, C.J., Mueser, P.R., and K.R. Troske, 2004. The Effects of Welfare-to-Work Program Activities on Labor Market Outcomes. 2004 *Meeting of the Society of Labor Economists*.

Farinha Rodrigues, C., 2004. The Redistributive Impact of the Guaranteed Minimum Income Programme in Portugal. Technical University of Lisbon, Department of Economics, *Working Paper* n° 2004/09.

Freedman, S., Friedlander, D., Hamilton, G., Rock, J., Mitchell, M., Nudelman, R., J., Schweder, A. and L. Storto, 2000. *National Evaluation of Welfare-to-Work Strategies*. Manpower Demonstration Research Corporation, New York.

Friedlander, D., Greenberg, D.H., and P.K. Robins, 1997. Evaluating Government Training Programs for the Economically Disadvantaged. *Journal of Economic Literature* 35, 1809–1855.

Frolich, M., 2004. Finite-sample Properties of Propensity-Score Matching and Weighting Estimators. *The Review of Economics and Statistics* 86, 77–90.

Goerge, R.M. and B. Joo Lee, 2001. Matching and Cleaning Administrative Data. In: Ver Ploeg, M., Moffitt, R.A. and C. Citro (Eds.), *Studies of Welfare Population: Data Collection and Research Issues*. National Academy Press, Washington.

Gottschalk, P., 1996. Is the Correlation in Welfare Participation across Generations Spurious? *Journal of Public Economics* 63, 1–25.

Gottschalk, P. and R. Moffitt, 1994. Welfare Dependence: Concepts, Measures and Trends. *American Economic Review* 84, 38–42.

Grogger, J., Karoly, L.A., and J.A. Klerman, 2002. Consequences of Welfare Reform: A Research Synthesis. *Working Paper DRU-2676-DHSS*, RAND.

Gurgand, M., and D.N. Margolis, 2005. Does Work Pay in France? Monetary Incentives and the Guaranteed Minimum Income. *IZA Discussion Paper* n° 1467, Bonn.

Harris, K.M., 1996. Life after Welfare: Women, Work and Repeat Dependency. *American Sociological Review* 61, 407–426.

Heckman, J., Ichimura, I., and P. Todd, 1998. Matching as an Econometric Evaluation Estimator. Review of Economic Studies 64, 605-654.

Hills, J., and J. Waldfogel, 2004. A "Third Way" in Welfare Reform? Evidence from the United Kingdom? *Journal of Policy Analysis and Management* 23, 765–788.

Hotz, V.J., Imbens, G.W., and J.A. Klerman, 2000. The Long-Term Gains from Gain: a Re-Analysis of the Impacts of the California GAIN Program. *NBER Working Paper* 8007, Cambridge, MA.

Hvinden, B., 2000. The Diverse Meanings of Activation in Western Europe of the 1990s. Seminar *The Activating Welfare State: New Ways of Fighting Poverty and Social Exclusion in Europe*, Lund University, Sweden, 27–28 October, 2000.

Imbens, G.W., 2000. The Role of Propensity Score in Estimating Dose-Response Functions. *Biometrika* 87, 706–710.

Imbens, G.W., 2004. Nonparametric Estimation of Average Treatment Effects Under Exogeneity: A Review. *The Review of Economics and Statistics* 86, 4–29.

Keng, S.H., Garasky, S., and H.H. Jensen, 2000. Welfare Dependence, Recidivism and the Future for Recipients of Temporary Assistance for Needy Families. Center for Agricultural and Rural Development, Iowa State University, *Working Paper* 00-WP 242.

LaLonde, R.J., 1986. Evaluating the Econometric Evaluations of Training Programs with Experimental Data. *American Economic Review* 76, 604–620.

Leahey, E., 2001. A Help or Hindrance? The Impact of Job Training on the Employment Status of Disadvantaged Women. *Evaluation Review* 25, 29–54.

Lechner, M., 2002. Program Heterogeneity and Propensity Score Matching: An Application to the Evaluation of Active Labor Market Policies. *The Review of Economics and Statistics* 84, 205–220.

Lichter, D.T., and R. Jayakody, 2002. Welfare Reform: How Do We Measure Success? *Annual Review of Sociology* 28, 117–141.

Lødemel, I., and H. Trickey (Eds.), 2000. An offer you can't refuse: Workfare in International Perspective. The Policy Press, Bristol.

Mainieri, T. and S. Danziger, 2001. Designing Surveys of Welfare Populations, Report from the Workshop on Designing Surveys of Welfare Recipients. Ann Arbor, Michigan.

Meyer, D.R., and M. Cancian, 2000. Life after Welfare. Public Welfare 54, 25-29.

Moffitt, R., 2001. From Welfare to Work: What the Evidence Shows? The Brookings Institution, *Policy Brief* 13/2002.

Moffitt, R., 2002. Welfare Programs and Labor Supply. In: Auerbach, J.M. and M. Feldstein (Eds.), *Handbook of Public Economics*, vol.4. North-Holland: Amsterdam.

Moffit, R., and M. Ver Ploeg (Eds.), 2001. Evaluating Welfare Reform in an Era of Transition. National Academy Press, Washington, DC.

Pasquinelli, S., 2002. RMI: Il Primo Biennio di Sperimentazione. Prospettive Sociali e Sanitarie 32, 9-19.

Paugam, S., 1993. La société française et ses pauvres. Presses Universitaires de France, Paris.

Pavetti, L. and D. Strong (Dirs.), 2001. Work-Based Strategies for Hard-to-Employ TANF Recipients: A Preliminary Assessment of Program Models and Dimensions. Mathematica Policy Research, Inc, Washington, DC.

Pepper, J.V., 2000. The Intergenerational Transmission of Welfare Receipt: A Nonparametric Bounds Analysis. *The Review of Economics and Statistics* 82, 472–488.

Ramlau-Hansen, H., 1983. Smoothing Counting Process Intensities by Means of Kernel Functions. *The Annals of Statistics* 11, 453–466.

Rosenbaum, P.R., and D.B., Rubin, 1983. The Central Role of the Propensity Score in Observational Studies for Causal Effects. *Biometrika* 70, 41–55.

Rubin, D., 1977. Assignment to a Treatment Group on the Basis of a Covariate. *Journal of Educational Statistics* 2, 1–26.

Sandefur, G.D. and S.T. Cook, 1997. Duration of Public Assistance Receipt: Is Welfare a Trap? Institute for Research on Poverty, *Discussion Paper* no. 1129-97.

Sianesi, B., 2004. An Evaluation of the Swedish System of Active Labor Market Programs in the 1990s. *The Review of Economics and Statistics* 86, 133–155.

Smith, J., 2000. A Critical Survey of Empirical Methods for Evaluating Active Labour Market Policies. *Swiss Journal of Economics* 136, 1–22.

Smith, J., and P. Todd, 2004. Does Matching Overcome Lalonde's Critique of Nonexperimental Estimators? *Journal of Econometrics* 125, 305–353.

Van den Berg, G.J., Van der Klaauw, B., and J.C. Van Ours, 2004. Punitive Sanctions and the Transition Rate from Welfare to Work. *Journal of Labor Economics* 22, 211-241.

Van Oorschot, W., 2002. Miracle or Nightmare? A Critical Review of Dutch Activation Policies and their Outcomes. *Journal of Social Policy* 31, 339–420.

Vanlerenberghe, P. (Coord.), 1992. RMI. Le Pari de L'Insertion: Rapport de la Comission Nationale D'Evaluation Du Revenu Minimum D'Insertion. La Documentation Française: Paris.

Weeks, G., 1991. Leaving Public Assistance in Washington State. Washington State Institute for Public Policy.

Zoyem, J.P., 2001. Contrats d'Insertion et Sortie du RMI. Économie et Statistique 346-347, 75-102.

DOCUMENTOS DE TRABAJO

Últimos números publicados

159/2000	Participación privada en la construcción y explotación de carreteras de peaje Ginés de Rus, Manuel Romero y Lourdes Trujillo
160/2000	Errores y posibles soluciones en la aplicación del Value at Risk Mariano González Sánchez
161/2000	Tax neutrality on saving assets. The spahish case before and after the tax reform Cristina Ruza y de Paz-Curbera
162/2000	Private rates of return to human capital in Spain: new evidence F. Barceinas, J. Oliver-Alonso, J.L. Raymond y J.L. Roig-Sabaté
163/2000	El control interno del riesgo. Una propuesta de sistema de límites riesgo neutral Mariano González Sánchez
164/2001	La evolución de las políticas de gasto de las Administraciones Públicas en los años 90 Alfonso Utrilla de la Hoz y Carmen Pérez Esparrells
165/2001	Bank cost efficiency and output specification Emili Tortosa-Ausina
166/2001	Recent trends in Spanish income distribution: A robust picture of falling income inequality Josep Oliver-Alonso, Xavier Ramos y José Luis Raymond-Bara
167/2001	Efectos redistributivos y sobre el bienestar social del tratamiento de las cargas familiares en el nuevo IRPF Nuria Badenes Plá, Julio López Laborda, Jorge Onrubia Fernández
168/2001	The Effects of Bank Debt on Financial Structure of Small and Medium Firms in some Euro- pean Countries Mónica Melle-Hernández
169/2001	La política de cohesión de la UE ampliada: la perspectiva de España Ismael Sanz Labrador
170/2002	Riesgo de liquidez de Mercado Mariano González Sánchez
171/2002	Los costes de administración para el afiliado en los sistemas de pensiones basados en cuentas de capitalización individual: medida y comparación internacional. José Enrique Devesa Carpio, Rosa Rodríguez Barrera, Carlos Vidal Meliá
172/2002	La encuesta continua de presupuestos familiares (1985-1996): descripción, representatividad y propuestas de metodología para la explotación de la información de los ingresos y el gasto. Llorenc Pou, Joaquín Alegre
173/2002	Modelos paramétricos y no paramétricos en problemas de concesión de tarjetas de credito. Rosa Puertas, María Bonilla, Ignacio Olmeda

174/2002	Mercado único, comercio intra-industrial y costes de ajuste en las manufacturas españolas. José Vicente Blanes Cristóbal
175/2003	La Administración tributaria en España. Un análisis de la gestión a través de los ingresos y de los gastos. Juan de Dios Jiménez Aguilera, Pedro Enrique Barrilao González
176/2003	The Falling Share of Cash Payments in Spain. Santiago Carbó Valverde, Rafael López del Paso, David B. Humphrey Publicado en "Moneda y Crédito" nº 217, pags. 167-189.
177/2003	Effects of ATMs and Electronic Payments on Banking Costs: The Spanish Case. Santiago Carbó Valverde, Rafael López del Paso, David B. Humphrey
178/2003	Factors explaining the interest margin in the banking sectors of the European Union. Joaquín Maudos y Juan Fernández Guevara
179/2003	Los planes de stock options para directivos y consejeros y su valoración por el mercado de valores en España. Mónica Melle Hernández
180/2003	Ownership and Performance in Europe and US Banking – A comparison of Commercial, Co- operative & Savings Banks. Yener Altunbas, Santiago Carbó y Phil Molyneux
181/2003	The Euro effect on the integration of the European stock markets. Mónica Melle Hernández
182/2004	In search of complementarity in the innovation strategy: international R&D and external knowledge acquisition. Bruno Cassiman, Reinhilde Veugelers
183/2004	Fijación de precios en el sector público: una aplicación para el servicio municipal de sumi- nistro de agua. Mª Ángeles García Valiñas
184/2004	Estimación de la economía sumergida es España: un modelo estructural de variables latentes. Ángel Alañón Pardo, Miguel Gómez de Antonio
185/2004	Causas políticas y consecuencias sociales de la corrupción. Joan Oriol Prats Cabrera
186/2004	Loan bankers' decisions and sensitivity to the audit report using the belief revision model. Andrés Guiral Contreras and José A. Gonzalo Angulo
187/2004	El modelo de Black, Derman y Toy en la práctica. Aplicación al mercado español. Marta Tolentino García-Abadillo y Antonio Díaz Pérez
188/2004	Does market competition make banks perform well?. Mónica Melle
189/2004	Efficiency differences among banks: external, technical, internal, and managerial Santiago Carbó Valverde, David B. Humphrey y Rafael López del Paso

190/2004	Una aproximación al análisis de los costes de la esquizofrenia en españa: los modelos jerár- quicos bayesianos F. J. Vázquez-Polo, M. A. Negrín, J. M. Cavasés, E. Sánchez y grupo RIRAG
191/2004	Environmental proactivity and business performance: an empirical analysis Javier González-Benito y Óscar González-Benito
192/2004	Economic risk to beneficiaries in notional defined contribution accounts (NDCs) Carlos Vidal-Meliá, Inmaculada Domínguez-Fabian y José Enrique Devesa-Carpio
193/2004	Sources of efficiency gains in port reform: non parametric malmquist decomposition tfp in- dex for Mexico Antonio Estache, Beatriz Tovar de la Fé y Lourdes Trujillo
194/2004	Persistencia de resultados en los fondos de inversión españoles Alfredo Ciriaco Fernández y Rafael Santamaría Aquilué
195/2005	El modelo de revisión de creencias como aproximación psicológica a la formación del juicio del auditor sobre la gestión continuada Andrés Guiral Contreras y Francisco Esteso Sánchez
196/2005	La nueva financiación sanitaria en España: descentralización y prospectiva David Cantarero Prieto
197/2005	A cointegration analysis of the Long-Run supply response of Spanish agriculture to the com- mon agricultural policy José A. Mendez, Ricardo Mora y Carlos San Juan
198/2005	¿Refleja la estructura temporal de los tipos de interés del mercado español preferencia por la li- quidez? Magdalena Massot Perelló y Juan M. Nave
199/2005	Análisis de impacto de los Fondos Estructurales Europeos recibidos por una economía regional: Un enfoque a través de Matrices de Contabilidad Social M. Carmen Lima y M. Alejandro Cardenete
200/2005	Does the development of non-cash payments affect monetary policy transmission? Santiago Carbó Valverde y Rafael López del Paso
201/2005	Firm and time varying technical and allocative efficiency: an application for port cargo han- dling firms Ana Rodríguez-Álvarez, Beatriz Tovar de la Fe y Lourdes Trujillo
202/2005	Contractual complexity in strategic alliances Jeffrey J. Reuer y Africa Ariño
203/2005	Factores determinantes de la evolución del empleo en las empresas adquiridas por opa Nuria Alcalde Fradejas y Inés Pérez-Soba Aguilar
204/2005	Nonlinear Forecasting in Economics: a comparison between Comprehension Approach versus Learning Approach. An Application to Spanish Time Series Elena Olmedo, Juan M. Valderas, Ricardo Gimeno and Lorenzo Escot

205/2005	Precio de la tierra con presión urbana: un modelo para España Esther Decimavilla, Carlos San Juan y Stefan Sperlich
206/2005	Interregional migration in Spain: a semiparametric analysis Adolfo Maza y José Villaverde
207/2005	Productivity growth in European banking Carmen Murillo-Melchor, José Manuel Pastor y Emili Tortosa-Ausina
208/2005	Explaining Bank Cost Efficiency in Europe: Environmental and Productivity Influences. Santiago Carbó Valverde, David B. Humphrey y Rafael López del Paso
209/2005	La elasticidad de sustitución intertemporal con preferencias no separables intratemporalmente: los casos de Alemania, España y Francia. Elena Márquez de la Cruz, Ana R. Martínez Cañete y Inés Pérez-Soba Aguilar
210/2005	Contribución de los efectos tamaño, book-to-market y momentum a la valoración de activos: el caso español. Begoña Font-Belaire y Alfredo Juan Grau-Grau
211/2005	Permanent income, convergence and inequality among countries José M. Pastor and Lorenzo Serrano
212/2005	The Latin Model of Welfare: Do 'Insertion Contracts' Reduce Long-Term Dependence? Luis Ayala and Magdalena Rodríguez