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Are not any silver in the cloud? Subjective well-being
among deprived young people

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Resumen

Este artículo analiza los canales que afectan al Bienestar Subjetivo (SWB, por sus siglas en inglés), y cuáles son los efectos de un Programa de Intermediación Social. Desarrollamos un simple modelo teórico para vincular el SWB con la riqueza individual y de referencia, el esfuerzo, y el nivel de aspiraciones. Luego de superar los problemas de selección con una variable instrumental que nos permite identificar los efectos causales, encontramos un impacto negativo sobre el SWB siendo el principal canal de este cambio la Riqueza Relativa Subjetiva, es decir, la relación entre el individuo y la riqueza de referencia. No hay efecto a través de los restantes canales teóricos, aunque los resultados sobre el SWB son heterogéneos según características psicológicas; son más altos entre aquellos con bajos niveles de aspiraciones y locus de control externo. Finalmente, desentrañamos las principales características del programa que podrían generar este efecto, brindando información relevante para los hacedores de políticas.

Palabras clave: bienestar subjetivo, aspiraciones, programa de intermediación social

Código JEL: D60, I38, O15.

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Are not any silver linings in the cloud? Subjective well-being among deprived young people

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Abstract

Young people suffer higher levels of deprivation than older people, mainly in developing countries. They not only deal with social obstacles to getting a job or to staying in the education system, but they can also erect barriers which prevent them from achieving desirable trajectories in the future. We analyze the effect of a Social Intermediation Program (JeR) on Subjective Well-being and present how SWB is constructed and the different channels of its change. We develop a simple theoretical model to link subjective well-being with the individual and reference wealth, the effort and the level of aspirations, and how they can be affected by JeR. To overcome selection issues and to be able to identify causal effects, we estimate the model through instrumental variables using distance in meters between the individual house and the closest JeR center. We find a negative impact of JeR on Subjective Well-being and the main channel of this change is through Subjective Relative Wealth, i.e., the relation between the individual and the reference wealth, but there is no effect through the other theoretical channels: the levels of effort or aspirations. These results are heterogeneous by psychological features; they are higher among those with low aspiration levels and external locus of control. We also find JeR has a positive effect on the dispersion of SWB, pushing down those on the left part of the distribution and maintaining SWR as the main channel. Finally, we disentangle the main program characteristics that might generate this effect giving relevant information for the policymakers.

Keywords: social intermediation program, subjective well-being, aspiration
JEL codes: D60, I38, O15.

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1 Introduction

Deprivation among young people is relatively higher than other groups in developing and also in developed countries. In particular, policies have focused on those individuals that neither study nor work in the market, on the understanding that at those ages, by doing these activities, individuals develop cognitive and non-cognitive abilities that are the pillars of possible future trajectories in adulthood (Heckman et al., 2006a; Borghans et al., 2008). Usually, the policies designed to change the situation of these individuals start from a common normative idea that studying or working is a better situation for them (Gregg, 2001). However, at those ages, and especially among deprived individuals, these social goals cannot be assumed to be shared by all (Posner, 1997; Fisman and Miguel, 2007; Fischer and Huddart, 2008) or may be perceive as unfeasible (Dercon et al., 2014; Macours and Vakis, 2014). While these policies could lead to individuals attending school or looking for (or getting) a job, each person can be differently affected by them (Heckman et al., 2006b). Some can be pushed to improve their living conditions, while others subjected to internal constraints are unable to do so, but might change other dimensions (Ibarraran et al., 2014; Duflo, 2012), such as their references in social comparison. This paper explores the effects of social intermediation programs (SIPs) on the subjective well-being (SWB) of young people (Haushofer and Fehr, 2014; Luttmer, 2005; Clark et al., 2008), and assess and quantify the different channels that impact SWB.

SIPs are thought to work with a personalized treatment and in an interpersonal manner: small working teams with a limited number of participants, they focus on particular problems and objectives, and by a written agreement with a shared individual path to follow[1]. We use one SIP, *Jóvenes en Red* (hereafter, JeR) a program carried out in Uruguay that works with extremely deprived young people neither working nor studying in formal education. JeR focuses on strategies that not only to push individuals toward formal work and education but also organize communal and cultural events both in the neighborhood and out of it. These strategies can affect the SWB through different channels (Clark et al., 2008; Dalton et al., 2016; Genicot and Ray, 2014): first, it can affect the achievement of the individuals, e.g., higher income, obtaining a job or completing an additional year in school; secondly, individuals can change the reference to which they compare themselves, i.e., knowing of lifestyles or living conditions other than those in their neighborhood can change an individual's reference point; and thirdly the effort that the individual exerts to follow the path defined in the written agreement.

SWB is analyzed as experienced utility (Kahneman et al., 1997) and is a valid measurement of the individual's real utility. We thus need to define the determinants of the SWB. Theoretically, Dalton et al. (2016) defines it as depending on the relative wealth of the individual, the aspirations in the sense of Appadurai (2004) and the effort. In our model, SWB depends on four variables: individual wealth, level of effort, reference wealth and aspirations. Although the first two variables have been widely studied in economics, the direction of effect

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[1]Some of the few examples of such endeavors in Latin America which specifically tackle extreme poverty include: Juntos-Unidos in Colombia (Abramovsky et al., 2016), Chile Solidario (Camacho et al., 2014; Carneiro et al., 2015), and others to alleviate poverty and create supportive environments pushing early childhood development such as Chile Crece Contigo among others Richter et al. (2017).

on SWB is not necessarily obvious. On the one hand, the evidence has not overcome the *Easterlin Paradox*[2] (Easterlin, 2001), and on the other hand effort has various impacts, both positive and negative, on both short- and medium-run SWB and on the construction of aspiration. Klug and Maier (2015) in their meta-analysis find insights to a positive association between achieving goals and SWB but they caution against overconfidence in the results citing definitions, measurements, and the study design. Galiani et al. (2018b) highlight the timing of the effect, and how an immediate positive impact can disappear on average within a year and a half.

We define subjective relative wealth (SRW) as the relation between the individual's and the reference wealth; it can change when new knowledge widens the window of the wealth distribution. Finally, in the model, we constructed aspirations in a similar shape to that in Dalton et al. (2016), although we include the role of the environment (Besley, 2017; Bogliacino and Ortoleva, 2015) and we propose a discontinuous function determined by two individual underlying levels. There are low and high aspiration individuals established in the past, and they can move aspirations changing effort, wealth and relative wealth. Relative wealth is not convex function as opposed to the aspiration gap which is, as also defined by Ray (2006), small distances between individuals and their reference groups are insufficient incentive to induce changes, and neither make considerable differences to avoid frustration, even reducing their aspirations. When the gap is large, however, this may lead to reduced aspiration, to avoid frustration. Then, as in Galiani et al. (2018a) reference point changes positively impact aspirations only in a intermediate area, where the individuals perceive they have the possibility to reduce the gap.

In this paper, we want to test the following hypotheses from the theoretical model, regarding the SIP impacts on the main variables that we focus on. In particular, JeR a) has positive impacts on observed effort because participants attend school or work more; b) has positive impacts on reference wealth, because the main activities in the program tend to close other realities and pushing up their reference point; and c) has undetermined impacts on aspirations originating from the overcoming of internal constraints. Thus, as JeR impacts all three channels which can change SWB, we will also observe a change in SWB.

Even though the design of the program is not a random experiment, we find that the program centers can be described as randomly located in the territory. For each census area we compute some observable characteristics in 2011 and we find that none of those characteristics of the census area where the program centers are located have any difference with respect to other census areas in the area of program coverage.

This paper makes four relevant contributions to the literature on SWB, reference groups and aspirations. The first contribution is how individuals change their reference group and the ensuing impact on their SWB. Kristoffersen (2018); Perez-Truglia (2016); Card et al. (2012); Clark and Senik (2010) and Ferrer-i Carbonell (2005) discuss the impact of the reference group on well-being dimensions using different methodologies and frameworks. They find an effect and point out how negative comparisons are different and have larger impacts than the positive ones. Our paper contributes to the study of an extremely deprived population who after

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[2]The *Easterlin Paradox* states that, statistically, happiness varies directly with income both between and within nations, but when we consider it dynamically, happiness does not trend upward as income does.

their participation in an SIP changes their point of comparison, and how this has an impact on their SWB. Although their situation and the environment are the same when they know that behind the veil there are other worlds, they are not able to ignore them. Our findings are causal, comprises our second contribution: exploit an instrumental variable strategy to estimate the effect of the program on SWB and its channels, thereby overcoming the selection problems that program design can have.

Thirdly, we contribute to the literature on how aspiration is built. We draw from the concept of an *aspiration trap* as per Heifetz and Minelli (2015), where they propose that an aspiration set (or capacity of aspiring in the words of Appadurai (2004)) is consistent ex-post does not regret having wanted, then aspirations and preferences are properly adjusted. Ray (2006) shapes the previously developed concept of *aspiration window*: poor individuals cannot aspire to the extent that rich ones can, because the gap between them is perceived as too large. We define aspirations as depending on an inherent factor and idiosyncratic one, i.e. we do not expect movements in the short run. Then, we measure aspiration with a question about their anticipated income and labor situation in the next year. Empirically, we find that individuals with a lower level of aspiration are more susceptible to changing their reference point and the SWB downward, as Kearney and Levine (2014) and Goux et al. (2016) find that lower aspiration among low-income students decreases the probability of dropping out of school in US and France respectively. We also analyze other psychological features such as the locus of control; those individuals with external locus of control suffer higher decrement in SWB, as observed by in McGee (2015); Caliendo et al. (2015); McGee and McGee (2016) whereas internal locus of control leads to better labor market outcomes such as wages, human capital investment and effort and in Victor et al. (2013) that found an association between self-reported agency and SWB in the case of Mozambique.

Fourth and finally, we contribute to the analysis on how to improve the design of SIPs. Macours and Vakis (2014) found social interaction with valuable reference people positively affects human capital and productive investment. Leaders are good examples for others and improve their aspirations. They also found positive effects of leaders on happiness and negative effects on indicators of depression. Conversely, our results show a negative effect on the individuals in the short run; the delineation of roles by professional qualification and mandate of JeR team members differs from their analogues in the Nicaraguan program, which means that their influence cannot be read in the same way. We find the negative effect to be concentrated among those on the lower end of the distribution and those with mean individuals with better performances, leading to groups being more heterogeneous than we would have expected a priori. However, there are insights to affirm that these kinds of programs could have a positive effect in the medium term (Card et al., 2011) or possibly also in the long run. At first sight, lower SWB can be interpreted as a negative output, although a wider reference window can lead to higher SWB in the future through effort and higher individual wealth. Haushofer and Fehr (2014) assess what little evidence there is on poverty alleviation programs and life satisfaction and well-being, stressing the type of intervention (cash transfer or building a supportive environment) and changes over time.

The paper is organized as follows. Section 2 describes the program characteristics and the eligibility process. Section 3 describes the population which is targeted in this program, Section 4 presents the data and describes

the methodology. Section 5 presents the model and its main hypotheses, and Section 6 discusses the main results. Finally, Section 7 concludes.

2 Background

2.1 Program characteristics

JeR is an inter-institutional program in Uruguay, which started in 2012 in response to growing concern for a group of young people disconnected from both the educational system and the formal labor market. It targets young people between 14 and 24 years of age in poverty who drop out of the educational system and do not work in the formal sector. Each spends at maximum 18 months in the program, with a method that involves a highly skilled team working with a group of individuals on their specific characteristics and problems. These teams were comprised of three technicians and one leader, who can be shared by more than one team. They are relatively young (30 years old on average) with tertiary education mainly in social science fields (e.g., psychology and education). They work with 60 individuals in a specific geographical zone, e.g., a neighborhood, setting up reference centers in NGO buildings, health, educational or recreational centers. All the teams work both in these references centers and also on the streets.

The teams and the participant sign a contract with their desirable path to reach some objectives. They focus on the five goals previously established by the program: (i) improve personal conditions for access to the social welfare network; (ii) promote individual and social conditions to develop personal projects; (iii) develop skills for social integration and participation with autonomy; (iv) incorporation of basic knowledge and social skills for the integration of educational paths; (v) develop job placement projects and strategies to implement them.

The methodology includes not only the organization of activities that enhance individual and social skills but also the provision of some monetary and non-monetary benefits. The monetary benefits include a general grant to all the participants and some additional for enrollees who participate in formal education. The monthly monetary grant was around of 23 US dollars, is equivalent to 8% of the minimum gross wage. Then, in this paper, given those individuals were extremely deprived when they started with the program and there are no changes in their deprivation index (Índice de Carencias Críticas, here in after ICC) after it[3], we consider individual wealth as constant between individuals and over time.

In Figure 1 we can observe the map of Montevideo by census area.[4] We graph the percentage of the objective population (i.e., the objective populations are those individuals between 14 and 24 years old who are neither working nor studying in formal education, and they live in a household above the ICC) living in each census area as a proportion of the objective population in the whole city. Those zones with the lowest percentages

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[3]The Social Protection Minister uses this measure to evaluate the relative deprivation of households. This measure includes durables, housing condition and education environment among others.

[4]These areas are established by the National Statistics Institute to organize the Household and Population Census, and are determined by the population density and not by other characteristics such as private or public services. In the maps we only analyze Montevideo, which is the capital city and represent around the 50% of our population.

are in grey (less than 0.3%) and the highest ones are in red (above 2%), and the program reference centers are denoted by dots. Co-incidence between the colored zones and the dot indicates that the program (and JeR teams) are more focused in that area because a higher percentage of youth is neither employed nor in formal work.

2.2 Eligibility process

There are two entryways to JeR. The main one consists of JeR teams covering the neighborhood contacting groups of young people in squares or on street corners on working days. The second group of participants came from a list of individuals that government agencies identified as school dropouts and out of the labor market. For this reason, there is no waiting list to enter the program, and so we do not have an ex-ante control group, we only have benchmark information about the treated population.

Once the program was launched, teams start to work in different program reference centers throughout the neighborhood; there was more than one center by team and neighborhood. We want to determine the randomness of the geographical location of these places with respect to the objective population. To assess this, we regress the probability of each census area in JeR zones including a program reference center, on some population characteristics such as: the percentage of young individuals that are neither studying nor working, the rate in the latter situation and who are also deprived, the number of unmet basic needs (housing, clean water, sanitation, electricity, durable goods index and education), the percentages of unemployment and employment, and mean years of schooling. In Table 1, we show that none of these variables can explain the presence of the reference center in that census area in any of the different specifications, which allows us to assume that those centers are settled randomly with respect to our relevant variables.

In Figures 2 and 3, we show whether there is homogeneity of JeR zones. We graph the percentage of the objective population in each census area as a share of the total of the objective population in each JeR zone.[5] Census areas in grey have less than 3% of the objective population the respective JeR zone, and strong red indicates more than 30%. Each JeR zone is varied, containing areas with 15% or more of the objective population of the zone and others with less than 3%. Moreover, if we consider the influence zone of the JeR reference centers (e.g., drawing a circumference around each one), we can observe even more heterogeneity.

Despite this heterogeneity, the eligibility process methodology can lead to self-selection problems. We solve this with an instrumental variables methodology, using the distance between the individual house and the closest JeR reference center. Specifically, in Figure 3 we show the distribution of JeR reference centers in all the JeR zones in Montevideo. JeR references centers are not only situated in areas with different relative shares of the objective population, but also this heterogeneity increases when we consider an influence area with a radius of 2000 meters.

Finally, to exclude the fact that the location of JeR reference centers tend to be located in areas with higher

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[5]This percentage is the number of individuals in the objective population in census area i divided by the sum of the number of individuals in the objective population of all census areas i in JeR zone j .

service density, we compute the distance between the JeR reference centers and all the public high schools and technical schools. In Figure 4 we show the mean and the minimum distance; all the JeR centers are located less than 2000 meters from at least one education center, but do not tend to be located particularly close to them.

3   Methodology

As we presented above, there are some insights, especially regarding the location of the centers and the timing of the program, which enable us to conclude that there could be endogeneity problems in the selection of the treated population. Timing is not an issue here because our populations start simultaneously. To resolve location issues we use an identification strategy through instrumental variables. In each neighborhood, the program has several reference centers where the team organizes the work. We use the distance between the individual's house and the closest JeR reference center in the neighborhood. This instrument is closely related to the participation probability because one of the strategies toward participation in the program was the team wandering the streets looking for likely participants. Considering that each team can only work with 60 treated individuals, it seems reasonable to suppose that those living closest to the reference center are more likely to be contacted by JeR and also to become participants in the program.

Second, there is no relationship between the instrument and the outcomes. There is no reason to believe that the determination of the location of each center in a specific place of the neighborhood is because the nearby population has different characteristics than others as we show above. Moreover, we established a maximum distance threshold of 2000 meters to avoid outliers and keep the exercise focused on only those who live relatively close to the reference centers.

We estimate in two steps using group of equations (1). In the first one, we regress being in the program with respect to the distance in meters between the house of the individual and the SIP reference center and some covariates. In the second equation, we estimate the outcomes concerning the predicted first stage and some covariates. Both equations include reference center fixed effects. Considering JeR does not have a standardized protocol, the fixed effect implies different work methodologies of the professionals involved or subgroup/subpopulation characteristics.

Table 2 shows the first stage of the estimation. Using different specifications and samples, the distance in meters between the house of the individual and the SIP reference center is highly significant and serves as a good instrument. Note that the F-statistics are big enough to be a good instrument and not too big to pass through the endogeneity of the original variable. In Figure 5, there is the distance distribution of the treated and control population; both populations live in the area that we consider, but youth in the program on average live relatively closer to the JeR reference centers than the control ones.

$$T_{ic} = \gamma Z_{ic} + \phi X_{ic} + F_c + u_i$$

$$Y_{ic} = \alpha W_{ic} + \beta\big(\hat{\gamma} Z_{ic} + \hat{\phi} X_{ic} + u_i\big) + \epsilon_i \tag{1}$$

We surveyed individuals living in Montevideo metropolitan area who live less than 2000 meters from a JeR reference center. The treated population was chosen from among those whose program participation ended in October 2014, and who spent at least 18 months in the program. The control group was selected from the list of young individuals in households that received a cash and food transfer[6], who live in the same neighborhood and are the same age as the treated, and who neither attended school nor worked between July 2012 and July 2013, when the program started.

The survey covers 1603 people, 654 from the treated group and 949 from the control group, and took place between November 2014 and March 2015. We can cover 80% from the initial sample. In Table 3, we present the treated and control group descriptive statistics across a set of variables. There are no differences by gender, ICC or if they expect a baby. We see slight differences in other variables such as age and households composition, which we control for in the regression.

4   Descriptive Statistics and Main Variables

In Table 4 we show the main characteristics of young people who are neither working nor studying in Uruguay. There are 17% of individuals between 14 and 29 years old in this situation, which is more prevalent among females at all ages. The subgroup with the highest rate of 26% is females aged 18-24 years old. Considering the main activity on which they spend their time, at younger ages both males and female spend their time doing other activities, apart from searching for a job or doing home production. For those over 18 years old, we analyze by gender: males are mainly unemployed, and almost 50% of females do home production between 19 and 24, and searching for a job after 24 years old. In the assessment by household income distribution, as we expect, we find a concentration of this population in the lower part of the distribution, accounting for 31% in the first quintile and only 4% of the fifth one. The objective population in this paper is in the lower part of the first quintile of income, and under the age of 25.

We assess the fundamental variables of the paper through a set of questions specifically intended to measure SWB, SRW, aspirations and effort. In some cases we use a single question as an indicator/variable, and in other we construct a single variable from a group using Principal Component Analysis (PCA).[7] Our main outcomes in this paper are SWB and SRW. To measure SWB, we use a group of questions *On a scale of 1 to 10 where one is very unsatisfied and ten very satisfied: How satisfied are you about ⋯: life in general, your health, your family, your group of friends and your income.* We consider only the *life* dimension and an *overall* index which

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[6]These households are the more deprived among the beneficiaries of all government social programs.

[7]We also perform a fuzzy set, and the results are robust to the aggregation methodology.

is a combination of all factors using PCA. To measure SRW, we use the question *On a scale of 1 to 10, where 1 are the most deprived people, and 10 are the richest: Where are you located?*. In both cases, we work with standardized variables using its own mean and standard deviation.

We define the variable aspirations using a specific question in our survey intended for this purpose and focused on labor and economic aspirations. If either *find a (new) job or improve my income* are among the first three options, then the respective variable is coded as 1 for high aspiration, and is 0 otherwise. We aggregate both variables through PCA.

We use the question *Who do you think will contribute most to change your life?* to explore locus of control. The locus of control is defined as internal when the response is *the individual themselves* and external when the response is other options (her family, the community, the government among others).

Table 5 shows the share of individuals who declare high aspirations and internal locus of control for the whole sample, females, those who live in the capital city (Montevideo), and those individuals treated in the SIP. Only one-third of individuals declare high aspiration (defined in the labor and economic dimensions), with no differences among groups. A smaller proportion of individuals has internal locus of control (less than 40%)

The other two relevant variables are the effort and the individual wealth. The effort is constructed using four questions which identified labor participation and two additional questions about activities in the education system. To define labor participation, we use the questions about whether the individual is currently working and whether the individual is searching for a job or participating in some training or any other labor policy. The educational effort is measured by using questions on whether the individual attends formal or informal education. We aggregate these six questions using PCA. In the case of individual wealth, we use the vulnerability index which was described above.

In Table 6 we show the mean variables of the SWB, SRW and effort by treatment condition. In all dimensions of the aspirations, we observe both SRW and SWB are slightly lower for the treated population than for the whole sample of individuals of both high and low aspirations. Additionally, those with high aspirations have lower SRW and higher SWB and effort.

5   Model

In this section, we first develop a simple model to capture the relationship between the SWB, relative wealth and aspirations following the main ideas of Clark et al. (2008); Dalton et al. (2016) and Genicot and Ray (2014), and then we extract the main hypotheses. The individual's utility function in this model has three components, the first of which depends on the relative wealth ($\frac{\theta}{\theta^*}$) where θ is the individual wealth and θ^* is the reference wealth. There is a utility gain from closing the gap between θ and θ^*. The individual compares her wealth with the others, but only knows a small share of this distribution (θ^*), which is her reference wealth window. The function $b(.)$ is increasing, strictly continuous and concave. The second component captures the value of the underlying reference; the individual computes an aspiration gap which refers to the difference between her

aspirations and her achievements – in this case, we measure using wealth. As in the literature, $v'(.)$ is positive and we also assume that aspirations and effort are complements. The third and final component is the cost of effort and $c(.)$ is an increasing function with $c(0) = 0$.

$$U(\theta, \theta^*, g, e) = b\left(\frac{\theta}{\theta^*}\right) + v\left(\frac{\theta - g}{g}\right) - c(e) \tag{2}$$

I.e., four variables can change the individual utility (SWB): the individual wealth, the reference wealth, the aspiration and the effort. We now analyze the partial derivatives of SWB with respect to these four variables. First, there is a negative effect on well-being when the level of aspiration changes

$$\frac{\partial U(.)}{\partial g} = -\frac{\partial v}{\partial g}\frac{\theta}{g^2} < 0 \tag{3}$$

Aspiration level (g) depends positively on the effort and wealth (Dalton et al., 2016), and has unknown sign concerning the reference wealth. In Dalton et al. (2016), they define a pair of (e, g) which determines some final wealth. In our framework, aspirations are not a continuous function, rather, there is a discontinuity at the cut-off between low and high underlying aspiration levels, as can be seen in Figure 6. However, if we assume that wealth does not easily change in the short run among extremely deprived households, the pair (e, g) will not change either

Individuals construct their aspiration over time and are characterized by lower or higher underlying aspiration levels ($\hat{g_L}$ and $\hat{g_H}$) which are determined in the past and lead to different paths in the future. Afterward, aspirations can be changed through the function Ψ by the same variables as in the literature. Note, we do not impose the same function parameters (in Ψ) in the two parts determined by $\hat{g}$.

$$g = \hat{g} + \Psi(\overset{+}{e}, \overset{+}{\theta}, \overset{?}{\theta^*})$$

$$\hat{g} = \{\hat{g_L}, \hat{g_H}\} \tag{4}$$

Moreover, the level of effort and the initial wealth determine the individual wealth $\theta = \Theta(\theta_0, e)$, but without specifying any functional form. In conclusion, there are only two variables that can impact the SWB: reference wealth and effort and the following equations describe these impacts.

$$\frac{\partial U(.)}{\partial e} = \frac{\partial b}{\partial \theta}\frac{\partial \Theta}{\partial e}\frac{1}{\theta^*} + \frac{\partial v}{\partial \theta}\frac{\partial \Theta}{\partial e}\frac{1}{\Psi} - \frac{\partial v}{\partial g}\frac{\partial \Psi}{\partial e}\frac{\theta}{\Psi^2} - \frac{\partial c}{\partial e} \tag{5}$$

$$\frac{\partial U(.)}{\partial \theta^*} = -\frac{\partial b}{\partial \theta^*}\frac{\theta}{\phi^{*2}} - \frac{\partial v}{\partial g}\frac{\partial \Psi}{\partial \theta^*}\frac{\theta}{\Psi^2} < 0 \tag{6}$$

Both variables can impact SWB by both direct and indirect mechanisms. The direct mechanism of effort implies a cost (lower SWB), but the effort is rewarded with more wealth which brings an increase in SWB and aspirations. Which of the two outweighs is not necessarily obvious. The direct and indirect mechanisms for the

relative wealth both have a negative sign: the direct one refers to satisfaction originating from the gap between the individual's wealth and the reference wealth, and the indirect one is the effect through the change in the aspirations.

Finally, we want to analyze how public policy can work in this framework. The reference wealth is the wealth distribution window across which individuals would compare themselves with others θ^*, and depends on the individual wealth, the constant term of the aspirations $\hat{g}$ and public policy interventions (T). We assume that points of reference are susceptible to changes in the short run, as is proposed in Genicot and Ray (2014) where they change the window of what an individual can see. The wealth distribution in the society is approximately known by the individuals, but not perfectly. Policy can change the individual's familiarity with a larger cross-section of the socio-economic landscape. We assume that there are only changes in the mean of the distribution as in Clark et al. (2008). In Figure 7, changes in θ^* move the SWB in the curve downwards.

$$\theta^* = \Phi(\theta, \hat{g}, T) \tag{7}$$

Finally, the effect of the policy can affect each individual (L and H) heterogeneously.

$$\frac{\partial \Phi}{\partial T}\Big|_{\hat{g}=\hat{g_L}} \neq \frac{\partial \Phi}{\partial T}\Big|_{\hat{g}=\hat{g_H}} \tag{8}$$

In other words, public policy intervention can also affect the level of effort exerted by the individuals. Public policy can incentivize an individual to choose a higher level of effort to obtain a higher level of wealth and change their deprived situation, in which case $\frac{\partial e}{\partial T} > 0$.

Based on the model, we develop some hypotheses of how SIP affects SWB. In particular, JeR has impacts on the SWB because it can change all three of its components or channels. However, the sign/direction of change can be either positive or negative depending on which channels are preponderant. We establish three hypotheses to test each of these channels of SWB changes. The first channel is the effort. JeR impacts the effort when we measure it as the time spent in education (in a broad sense), looking for a job, or working. One of the primary objectives of JeR is that the individuals obtain formal employment and attend education, even partly reaching either of these objectives necessarily implies a higher observed effort. To pursue the goal of connecting participants to the education network, JeR teams organize different activities to present the educational possibilities to the participants regarding courses and fields. They also coordinate activities at of different education centers with teachers and students and vocational training. To connect the participants with the labor market, JeR organizes training courses to develop workplace skills, internships in firms, and experiences in communal activities. Moreover, JeR also promotes other activities to improve skills for work selection process such as letters, interviews, tests preparation among others.

This kind of hypothesis is a mechanical outcome in an impact evaluation analysis. In this case, the sign of the effect on SWB is ex-ante not determined because effort can lead to some reward but it has costs, and in our

exercise, we would expect a negative sign given the medium term rewards and immediate costs.

The hypothesis is that JeR impacts reference wealth, which is our second channel on SWB. Many of the activities of JeR involves close work among the team members and the individuals and could affect the beliefs about their point of reference. Additionally, JeR groups are comprised of people experiencing different levels or types of deprivation, and they organize cultural, sportive, recreational and communal activities both in the neighborhood an out of it. These activities imply higher social participation and meeting with people outside of the usual reference group. Moreover, participating in the labor market and training activities leads to participants meeting other young people in different circumstances and from other socioeconomic environments. Together, these elements can bring about a change in the wealth distribution window, and among an extremely deprived population, it specifically means a rise in the reference wealth (a decrease in the SRW). This change induces a fall in the SWB.

Finally, JeR impacts aspirations. Aspirations are susceptible to changes brought about by changes in effort and reference wealth. In this framework, JeR can have affect aspirations through activities that seek to reduce internal and external restrictions which inhibit individuals from having a higher level of aspirations. In fact, the first objective of JeR is a (written) commitment to a plan on the part of the team and the participant to determine the steps to achieve the aim to work or attend education. This type of contract is a feature to reduce the internal constraint to think about their future (Laajaj, 2017; Lybbert and Wydick, 2016). JeR also works on common problem such as family violence, problematic substances consumption, hygiene and social norms to strengthen the self-esteem and they can impact aspiration levels. Finally, there are other activities to reduce external constraints and barriers via work with the teams (Janzen et al., 2017). They work in an informative manner, letting the participant know the full offering of public policies and services (such as identification, transfer and care programs). They also introduce people from the neighborhood and with various characteristics and social environments which can positively impact aspiration levels (Ray, 2006; Janzen et al., 2017; Genicot and Ray, 2014).

Higher levels of effort are positively related to higher levels of aspirations, but the direction of the effect of wealth on aspirations is not certain. The sign of aspiration in SWB is negative (Dalton et al., 2016; Stutzer, 2004). However, we assume that aspirations are a fairly insensitive variable, at least in a bounded area, then we can expect little or no changes to it.

6 Results

In this section, we will discuss the result of the group of hypotheses presented below. First, we show the effect of an SIP on the SWB. Secondly, we assess the role of the channels – reference wealth, effort and aspirations – on these changes. As we show in the model, the first two channels have directly impact SWB, and indirect effect via aspirations and individual wealth. All the results are analyzed for the population as a whole and subgroups by gender, age and place of residence (live in Montevideo or not), for the whole sample and excluding

those control individuals who declares that they would never participate in a SIP, i.e. they are define as SIP never-taker. Additionally, we analyze how structural psychological features can lead to various effects. Finally, we discuss differences in these effects by group and with respect to some of the main program characteristics.

6.1 Subjective well-being and its channels

In Table 7 we show the estimation of the effects of the SIP on SWB, SRW, effort and individual wealth. All variables are standardized; the coefficients are then interpreted as the number of standard deviations change in the dependent variable with the treatment. The estimations on the SWB appear in the first two columns, and we find a negative effect of the SIP on the SWB for the population as a whole and especially among females for whom the effect is the almost double. Those individuals who participate in the SIP have a 0.7 standard deviation lower SWB across the population as a whole. Among females the effect is 50% larger, and this is so across specifications.

Columns 3 to 8 of Table 7 assess the channels of this change. We find JeR only affects the SRW, and we do not find any statistically significant effect on either effort or individual wealth. This latter result is expected because JeR works with an extremely deprived population, and so JeR was not able to change the individual wealth, even though the individuals could find a job or receive public transfers during the process. However, the lack of impact on effort is surprising because its components (be it in training, looking for or finding a job, and attending school) are the primary goals of JeR. None of the definitions of effort present any effect, as we observe in Table 8.

There is a reduction in SRW; those individuals treated for the SIP experience a change in their point of reference in the distribution, as we know that in mean there is no effect on individual wealth. The effect of JeR on SRW is a reduction of about 0.7 to 0.9 standard deviations among the population as a whole, the effect again being larger among females. Given that there are no changes in individual wealth, then these changes are necessarily via movement in the reference wealth. The experience in the program enlarges the reference window of the participants: they participate in cultural and recreational activities, knowing other life experiences that expand the scope of their reference point. The first hypothesis is validated, JeR as an SIP impacts SWB, but the only the channel operating here is the SRW, and the other two channels have no effect in our case.

6.2 Psychological features, aspiration change and a social intermediation program

Once we explore the change in SWB associated with by the program and the three main channels, we want to assess if the change can directly or indirectly be influenced by aspirations. In our model, aspirations can only be affected by the reference wealth, with individual wealth and effort being held constant. In this section, first we assess the effect on aspirations as an indirect channel that can change the SWB, and additionally, we consider other psychological features such as the locus of control as a mechanism of diffusion.

The first row of Table 5 shows the population-wide unconditional mean values of high aspirations levels, and

different subgroups; around 35% declare high aspiration regarding their future income and labor situation. In the first two columns of Table 9 we show the estimation of the effect of the SIP on the aspirations. A positive effect on aspiration, which could be a desirable outcome of SIPs, means higher aspiration gaps and thus higher effort in the medium run. We do not find any effect of the SIP on dimensions of aspiration for any of the specifications. We can conclude that aspirations are not affected by the SIP, which in terms of the model means that $\frac{\partial \psi(.)}{\partial \theta^*} \frac{\partial \Theta}{\partial T} = 0$. Aspirations are not easily changed in the short run, so the effect on SWB comes from a change in θ^*, which is $\frac{\partial b}{\partial \theta^*} \frac{\theta}{\theta^{*2}} \frac{\partial \Theta}{\partial T} \neq 0$.

In the second row of Table 5, there is the unconditional mean of those with the internal locus of control, meaning those who consider themselves as the main engine of change. This share is around 35% for all population subsamples. The third and fourth columns show the impact of JeR on the locus of control, and again there is no effect. Changes on SWB via SRW do not have aspiration or locus of control as the mechanism of transmission, so now we want to analyze if we consider individuals with low and high aspirations (as we graph in Figure 6) or those with external and internal locus of control to see if they tend to respond differently.

6.3 Aspirations and locus of control as sources of heterogeneity

As in Cobb-Clark and Schurer (2013), we consider psychological features such as aspirations and locus of control as constant in the short run., We explore if there are heterogeneous responses across individuals with respect to these two variables. Those individuals with lower levels of aspirations can be more susceptible to changing different dimensions than individuals with higher ones (see Equation 8). Low aspirations levels mean believing that in the future their income and labor situation would not be changed, and that the deprivation will continue, due to other aspects of their situation negatively impacting their SRW and consequently their SWB.

In Table 10 we replicate Table 7 but in this case consider heterogeneous responses by aspiration level. Individuals with low aspirations level are those for whom the negative effect on SRW and SWB is present: on both variables there are an effect of about one standard deviation lower for this subgroup. Note the interaction with aspiration level is not statistically significant, but the sign and economic magnitude give some indication that the heterogeneity could be even higher. In this analysis, we do not find any effect on either effort nor individual wealth.

We use the internal and external locus of control to perform another exercise of heterogeneous effects. We find similar results as in the case of low and high aspiration: those with the external locus of control are more liable to influence the effects of the reference point and thus their well-being. In Table 11 we show the impact of JeR on SWB and its channels, and again there is a relevant negative effect on SWB and SRW, concentrated on those with the external locus of control.

In sum, we find that JeR negatively impacts the SWB of the participants, and also their SRW. These short-run effects give us some indication that extremely deprived individuals can change some of their reference points first, and may later change (or not) some more structural features in the future such as their aspirations or some

educational or labor outcomes. Therefore, this result could help policymakers to assess the optimal timing of programs, both to determine lengths and exits and to analyze impacts on outcomes.

The results are supportive of the prominent role of some personality features as a mediating force on the importance of relative income for life satisfaction. In other words, the results show heterogeneity regarding the effect that income comparison has on happiness or life satisfaction. The negative impact of SIP on SWB of the participants is especially higher among those with the external locus of control, i.e., those who believe that a possible change comes from others or luck. The time in the program does not change these beliefs but is associated with to lower life satisfaction. Again, changes in the subjective position in the income distribution appear as the main channel of this change.

6.4 Within-group effects and program characteristics

In this section, we analyze what happens with the treated population relative to the groups that they participate and the program characteristics. Firstly, in Table 12, we focus on program effects within each group. To focus on the heterogeneity within groups, we compute the distance in standard deviations between each individual, treated and control, and the average individual in their group[8]. As is shown in columns (1) and (2), the program increases the distance of the SBW of the treated population from the average of their group by around 0.4 standard deviations, and this increment seems to be pushed by those on the left part of the distribution (columns (3) and (4)). In line with the former results, we also find JeR increase the SRW distance respect to the average of the group in around 0.4 standard deviations (columns (5) and (6)), but in this case there is not enough statistical power to prove a clear pattern in the distribution of this increment (columns (7) and (8)).

Although at first sight, the population in extreme deprivation may appear homogenous, this last item of evidence shows that they are heterogeneous and that these differences are one of the main features that put our mechanism into motion. Those who are furthest to the left of the distribution enter the program recognizing the others as peers, but after some time, their perceived socio-economic distance can become 'too far'.

We also want to analyze which characteristics of the program propitiate more changes among the treated, such as the team profile, activities outside of the neighborhood and peer effects. Thus, we regress our main outcomes with respect some of these characteristics that can explain the observed changes. In Panel A of Table 13, we show a negative effect on SWB of around 0.8 standard deviations if the working team leader was a psychologist (the variable was set to zero if the leader has another profile, such as teacher or social assistant). Psychologists prefer to work with the youth individually rather than with the whole group under their coordination, pointing out in their problems and the strategy to carry on. Panel B shows the adverse effect of participating in cultural and recreational activities out of the neighborhood; this result is in line with the fall of SWB due to the SRW. Finally, Panel C shows the negative impact of average SRW on SWB within group (excluding the individual), if the group peers on the right part of the negatively affected the youth on

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[8]Those in the treated population are include in their JeR work team and those in the control group are assigned to a group in the same neighborhood and with essentially the same observables compared to the treated ones.

the left part.

7   Conclusions

In Haushofer and Fehr (2014), the authors claim that psychological features originating from poverty could lead to behaviors that erect internal barriers making it more difficult to escape from poverty. However, they point out the little evidence available to date about the links between psychological features and poverty, how policy intervention can specifically impact SWB, and what type of program might be more efficient (and effective) to break this vicious circle. In this paper, we exploit a particular program that works with an extremely deprived population at ages where they build their aims and hopes, to analyze changes in SWB caused by the policy interventions and which channels can explain these changes. In particular, the SIP methodology involves highly educated and motivated teams working individually on specific youth's problems and projects. This type of program could impact the traditional outcomes of interest, but furthermore, it can affect other dimensions, such as non-cognitive abilities, aspirations, or their subjective well-being.

Our results demonstrate that SIP negatively affects the SWB of the individuals for the populations as a whole and it is higher among females and those who live in the capital city. This effect is significant statistically but also economically, because the change is between 0.7 and 1.3 standard deviations. In the analysis about which channel is the main driver of this movement among the theoretical channels, we find that only SIP affects the individual's perception of their place in the income distribution. The treated young in the SIP believe that they are more deprived than the control ones, even in the absence of changes in individual wealth. This result is in line with the relationships between psychological outcomes, poverty and policy interventions.

However, we do not find any change when we consider other characteristics such as aspirations or locus of control, but we do find some insights on how these features can play a role in policy interventions. Specifically, these two variables can distinguish those individuals whose SWB is affected and those whose SRW is affected. We find that those with low aspirations and external locus of control are more affected by the program in terms of widening their awareness of the scope of the wealth distribution and reducing their SWB.

Finally, our results are relevant for policymakers in at least four dimensions. We find the outcomes on the treated population are not homogenous and the distribution of SWB is wider than the control (the rest of the population) and those on the right side of the distribution significantly and negatively impact those on the left side. Second, we find heterogeneous effects with respect the team leader's education, the activities organized by the program and the group characteristics. Moreover, there is an early discussion about which program methodology is more effective in/at improving situations of poverty and how psychological features can trigger vicious circles and poverty traps (Duflo, 2012; Haushofer and Fehr, 2014; Daelmans et al., 2017). Our findings show that in the short run a personal and intensive program can enlarge the wealth distribution knowledge leading to lower SWB, although this result can be analyzed in the medium term as an increase in the aspirations gap which might drive better performance. In any case, targeting psychological features appear

as a means of escaping circles and traps against improving welfare. Finally, SIP programs require a substantial investment in highly educated, motivated and trained teams, shifting the resource constraint from large transfer programs with few objectives to have SIPs which strongly focus on individual reform, involving many and various goals. The lack scalability of the SIP is its principal drawback, but for extremely deprived individuals can be one of the few pathways to greater scope of socio-economic opportunity.

Figures

Figure 1: Percentage of citywide objective population in each census area
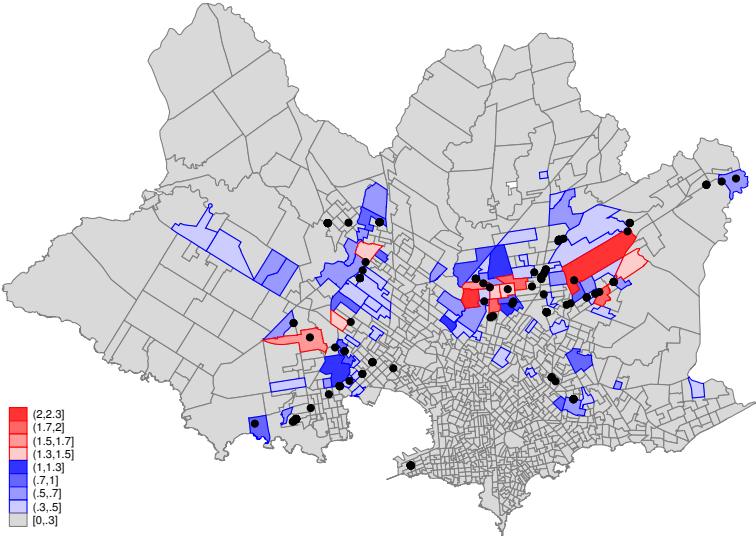
Figure 2: Percentage of respective JeR zone objective population in each census area
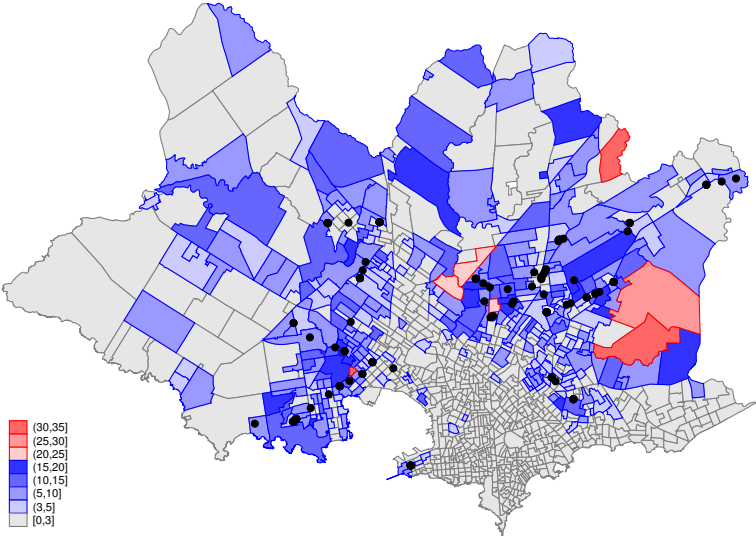
Figure 3: Percentage of respective JeR zone objective population in each census area; JeR-level views

(a) Casavalle and Pierdas Blancas

(b) La Teja

(c) Malvín Norte

(d) Colón and Lezica

(e) Ciudad Vieja and Barrio Sur

(f) Manga and Jardines
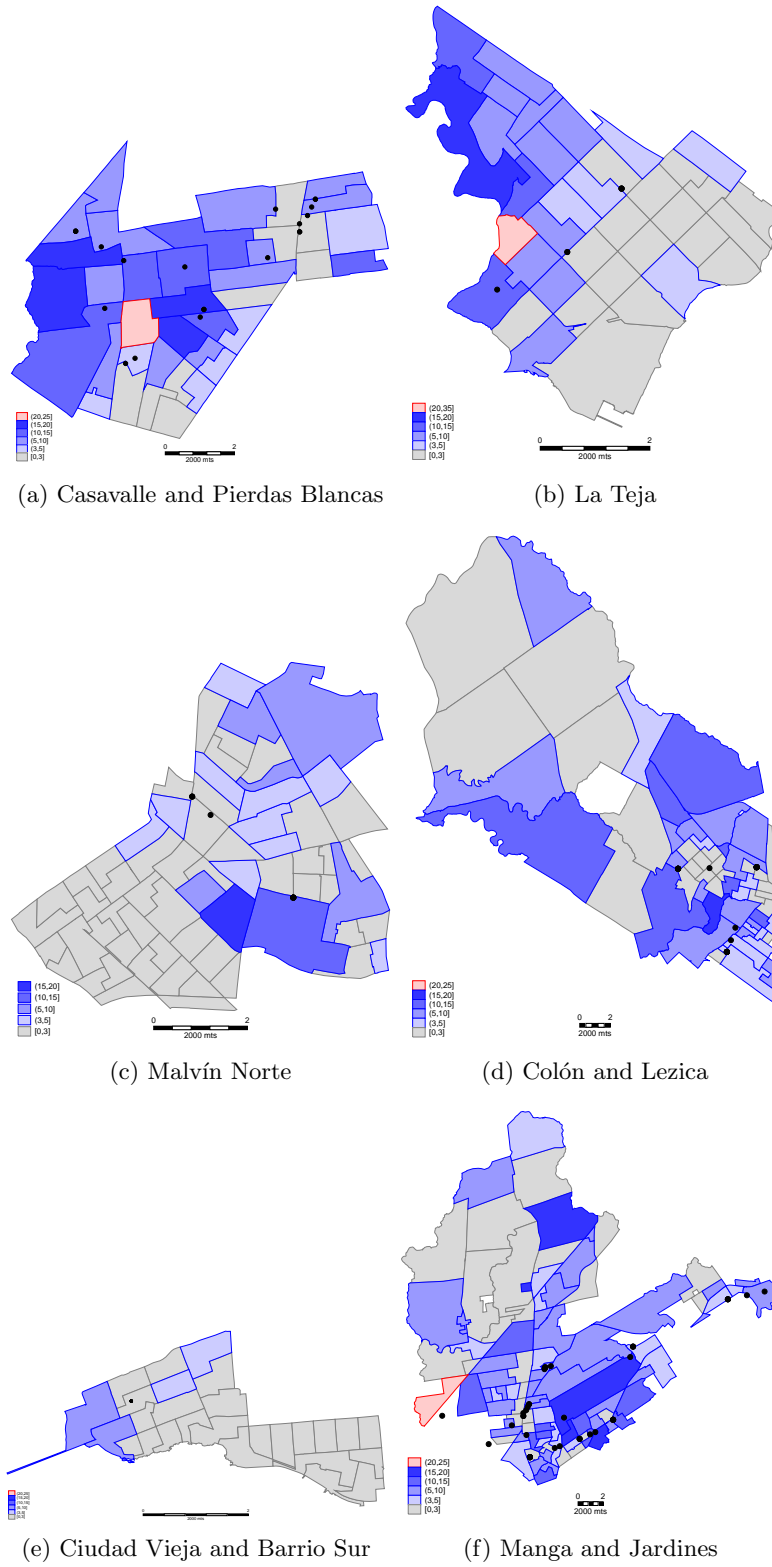
Figure 4: Distance distribution: JeR reference centers to high schools and technical schools

(a) Mean distance

(b) Minimum distance
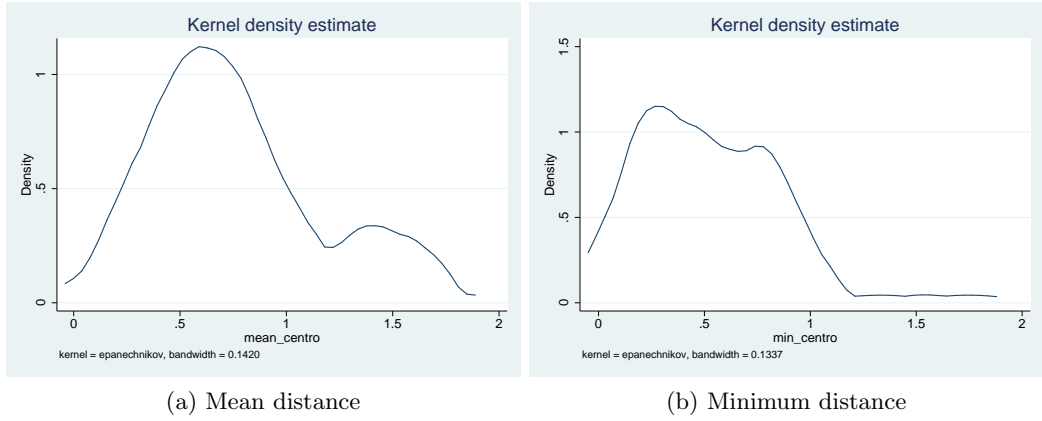
Figure 5: Distribution of the distance from closest JeR reference center to individual's home
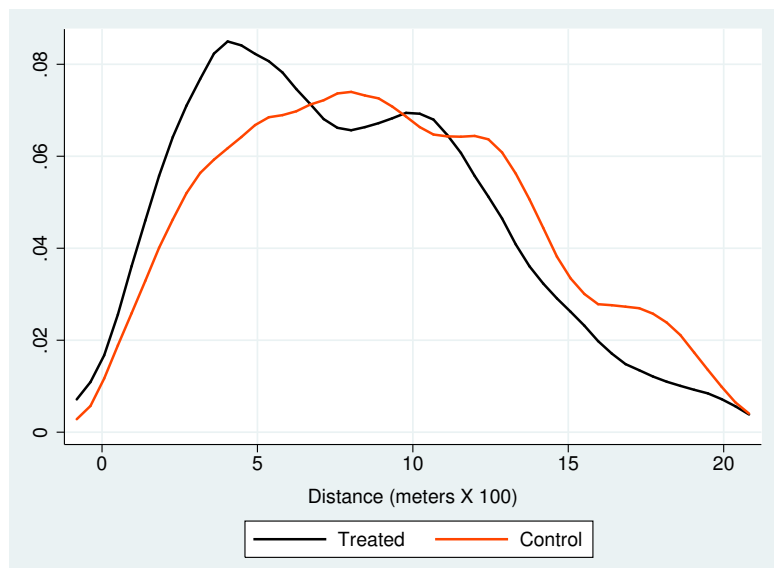
Figure 6: Aspirations curve
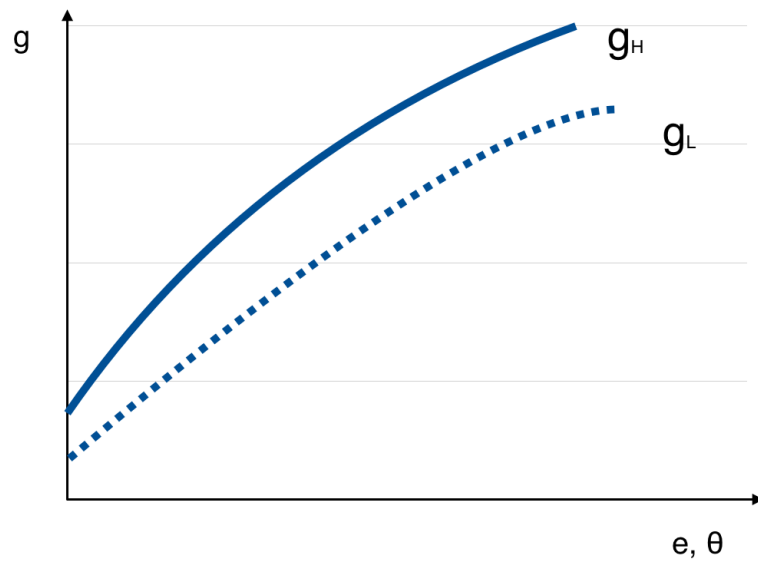
Figure 7: Effect of an SIP on the relative wealth and utility
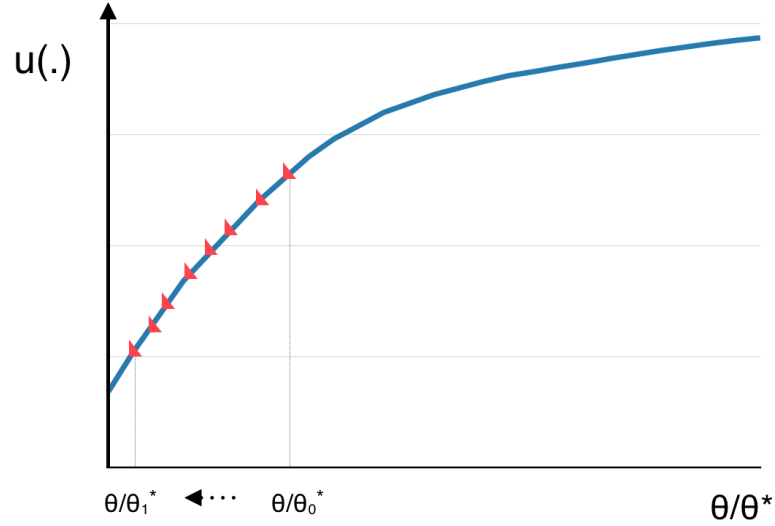
Tables

Table 1: Randomness of program reference centers (marginal effects)

| | Census area with a JeR reference center | | | | |
	(1)	(2)	(3)	(4)	(5)
Neither working nor studying	-0.028	-0.233	-0.251	-0.236	-0.341
	[0.128]	[0.232]	[0.229]	[0.225]	[0.295]
Objective population		0.344	0.273	0.326	0.394
		[0.309]	[0.356]	[0.343]	[0.384]
Unmet basic needs			0.114	0.111	-0.067
			[0.221]	[0.233]	[0.218]
Unemployment rate				-0.158	-0.155
				[0.340]	[0.323]
Employment rate				0.082	0.129
				[0.082]	[0.118]
Years of education					-0.016
					[0.015]
Observations	291	291	291	290	290

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1

Table 2: First stage: Instrumental variables

| | Panel A: Original sample | | | |
	(1a)	(2a)	(3a)	(4a)
Distance	-0.013***	-0.012***	-0.012***	-0.010***
	[0.002]	[0.002]	[0.002]	[0.002]
Obs.	2059	2045	2045	1768
F-test	33.12	50.56	38.07	18.62

| | Panel B: Survey | | | |
	(1b)	(2b)	(3b)	(4b)
Distance	-0.017***	-0.016***	-0.016***	-0.016***
	[0.003]	[0.003]	[0.002]	[0.002]
Obs.	1603	1603	1603	1603
F-test	43.33	47.64	30.32	24.71

Table 3: Balance of treated and control group

| | Control | | Treated | | t | |
	Mean	N	Mean	N		
Distance	9.1	949	7.6	654	6.38	***
Vulnerability index	0.58	949	0.56	654	1.38	
Capital city	65%	949	54%	654	4.41	***
Male	38%	949	41%	654	-1.26	
Age	20.3	949	19.4	654	6.19	***
Live with parents	56%	949	67%	654	-4.56	***
Live with couple	39%	949	29%	654	4.29	***
Have kids	54%	949	41%	654	5.04	***
Expecting a baby	11%	915	11%	637	-0.05	

Table 4: Characteristics of young people (neither working nor studying) in Uruguay

| | | Main activity | | | |
	Incidence	Unemploy-ment	Home production	Other activities	Total
Overall	17%	37%	33%	30%	100%
Male	13%	48%	7%	45%	100%
14-17 years old	12%	17%	10%	73%	100%
18-24 years old	16%	59%	5%	36%	100%
25-29 years old	9%	58%	8%	34%	100%
Female	21%	30%	49%	21%	100%
14-17 years old	11%	9%	37%	54%	100%
18-24 years old	26%	35%	46%	19%	100%
25-29 years old	23%	30%	59%	11%	100%
Income per capital					
First quintile	31%	34%	36%	30%	100%
Fifth quintile	4%	47%	15%	38%	100%

Source: 2015 Household Survey

Table 5: Individuals with high levels of aspirations and internal locus of control by treatment condition, region and gender

	High level of aspirations	Internal locus of control
Whole population	0.345	0.373
Treated	0.350	0.348
Female	0.323	0.366
Capital city	0.340	0.377

Table 6: Subjective well-being and subjective relative wealth (SRW) mean values by aspirations and treatment condition

	Aspirations		Locus of control	
	Low	High	External	Internal
(a) Whole population				
SRW (average)	0.025	-0.048	0.002	0.002
SWB (average)				
Overall	-0.069	0.129	-0.105	0.204
Life	-0.044	0.083	-0.071	0.126
Effort (average)	-0.016	0.031	0.012	-0.035
Wealth (average)	0.571	0.568	0.571	0.567
(b) Treat				
SRW (average)	-0.013	-0.043	-0.052	0.013
SWB (average)				
Overall	-0.123	0.108	-0.140	0.161
Life	-0.112	0.053	-0.119	0.069
Effort (average)	0.017	0.05	0.006	0.073
Wealth (average)	0.571	0.568	0.557	0.564

Table 7: Effect of JeR on subjective well-being (SWB) and its channels

	SWB		SRW $\left(\frac{\theta}{\theta^*}\right)$		Effort		Individual wealth (θ)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(a) Whole population								
Treat	-0.708**	-0.653**	-0.880**	-0.747*	0.150	0.098	-0.043	-0.048
	[0.343]	[0.319]	[0.448]	[0.402]	[0.437]	[0.381]	[0.121]	[0.120]
N	1368	1301	1331	1264	1384	1314	1384	1314
(b) Female								
Treat	-1.103*	-1.339**	-1.155	-1.163	-0.614	-0.470	-0.128	-0.157
	[0.569]	[0.650]	[0.744]	[0.766]	[0.623]	[0.636]	[0.168]	[0.167]
N	839	805	815	782	844	809	844	809
(c) Capital city								
Treat	-0.637**	-0.624**	-0.949**	-0.787***	-0.079	-0.007	0.012	0.020
	[0.294]	[0.278]	[0.373]	[0.301]	[0.222]	[0.220]	[0.108]	[0.101]
N	828	791	814	776	839	801	839	801
Excluding								
Never-taker	No	Yes	No	Yes	No	Yes	No	Yes

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1
All the regressions are in standard deviations

Table 8: Effects of JeR on effort variable

	Labor		Education	
	(1)	(2)	(3)	(4)
(a) Whole population				
Treat	0.039	0.031	0.116	0.101
	[0.045]	[0.043]	[0.093]	[0.088]
N	1131	1080	1131	1080
Mean	0.072	0.072	0.030	0.029
(b) Female				
Treat	0.029	0.031	0.059	0.049
	[0.066]	[0.065]	[0.115]	[0.114]
N	683	661	683	661
Mean	0.068	0.068	0.026	0.024
(c) Capital city				
Treat	0.040	0.036	0.132	0.123
	[0.040]	[0.039]	[0.088]	[0.083]
N	689	662	689	662
Mean	0.071	0.071	0.025	0.024
Excluding				
Never-taker	No	Yes	No	Yes

Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$
All the regressions are in standard deviations

Table 9: Effect of JeR on aspirations and locus of control

	Aspirations		Locus of control	
	(1)	(2)	(3)	(4)
(a) Whole population				
Treat	-0.153	-0.154	0.002	-0.038
	[0.389]	[0.381]	[0.209]	[0.199]
N	1384	1314	1339	1273
(b) Female				
Treat	-0.349	-0.073	-0.282	-0.292
	[0.537]	[0.492]	[0.265]	[0.268]
N	844	809	814	780
(c) Capital city				
Treat	-0.117	-0.112	-0.099	-0.064
	[0.290]	[0.291]	[0.124]	[0.127]
N	839	801	811	774
Excluding Never-taker	No	Yes	No	Yes

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1
All the regressions are in standard deviations

Table 10: Effect of JeR on subjective well-being and its channels, by aspiration level

	SWB	SRW $\left(\frac{\theta}{\theta^*}\right)$	Effort	Individual wealth (θ)
	(1)	(2)	(3)	(4)
Treat	-0.973**	-0.928**	0.049	-0.084
	[0.402]	[0.415]	[0.341]	[0.116]
Treat#High aspirations	1.508	0.839	-0.175	0.181
	[1.125]	[1.141]	[1.396]	[0.330]
F	0.336	0.007	0.009	0.089
p	0.562	0.934	0.925	0.766

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1
All the regressions are in standard deviations

Table 11: Effect of JeR on subjective well-being and its channels by locus of control

	SWB	SRW $\left(\frac{\theta}{\theta^*}\right)$	Effort	Individual wealth (θ)
	(1)	(2)	(3)	(4)
Treat	-0.886**	-0.615**	0.104	-0.094
	[0.374]	[0.293]	[0.441]	[0.123]
Treat#Internal locus of control	0.796	-0.611	0.371	0.036
	[0.950]	[1.288]	[0.975]	[0.291]
F	0.011	0.885	0.244	0.043
p	0.917	0.347	0.621	0.836

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1
All the regressions are in standard deviations

Table 12: Within groups effect of JeR on SWB and its channels

	SWB				SRW				Effort			
	ADA	ADA	SD	SD	ADA	ADA	SD	SD	ADA	ADA	SD	SD
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Treat	0.469**	0.390*	-0.877***	-0.770**	0.483**	0.370*	-0.539	-0.464	-0.387	-0.396	0.423*	0.450*
	[0.234]	[0.235]	[0.323]	[0.321]	[0.232]	[0.225]	[0.372]	[0.355]	[0.302]	[0.300]	[0.247]	[0.263]
Treat #Above average			0.703*	0.574			0.820**	0.667*			-0.280	-0.367
			[0.404]	[0.424]			[0.372]	[0.353]			[0.637]	[0.598]
F			0.385	0.502			0.725	0.451			0.054	0.023
p			0.535	0.479			0.395	0.502			0.816	0.881
Mean	0.749	0.735	0.014	0.031	0.774	0.771	0.046	0.052	0.976	0.975	-0.024	-0.020
Excluding youth Never-taker	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes

Robust standard errors in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$
SD: Standard deviation: $y_i = \frac{x_i - \overline{x}}{\sigma}$ Group average: $\overline{y} = \sum_{i \in j} y_i$
ADA: Absolute distance to the group average ($\|y_i - \overline{y}_j\|$)

Table 13: Characteristics of the treated

	SWB		SRW	
	(1)	(2)	(3)	(4)
Panel (A)				
Psychologist (1=yes)	-0.813***	-0.815***	0.346	0.342
	[0.195]	[0.182]	[0.571]	[0.566]
Panel (B)				
Cultural events out of the neighborhood (1=yes)	-0.275**	-0.283**	-0.035	-0.026
	[0.107]	[0.104]	[0.092]	[0.094]
Panel (C)				
Reference group (SRW)	-0.688***	-0.683***	-2.592***	-2.589***
	[0.143]	[0.144]	[0.338]	[0.338]
Panel (D)				
Reference group (SWB)	-3.676***	-3.659***		
	[0.454]	[0.452]		
N	558	551	536	529
Excluding young people				
Never-taker	No	Yes	No	Yes

Robust standard errors in brackets
*** p<0.01, ** p<0.05, * p<0.1
All the regressions are in standard deviations

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