

Effects of conditional cash transfers (CCT) in anti-poverty programs as a long term incentive in the use of public health and educational services by participating families. An empirical approach with panel data for the Mexican case of PROSPERA-Oportunidades (2002-2012)

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Abstract:

This paper analyzes the effectiveness of conditional cash transfer programs as a long-term incentive in the use of public services – health and education – among families, recipients of PROSPERA-Oportunidades. The Average Effect of Treatment on the Treated (ATT) for the time period 2002-2012 is estimated based on data from the Mexican Family Life Survey (MxFLS) using Propensity Score Matching (PSM). The encountered results show that the program's impact on the demand of health and educational services cannot be sustained in the long term which implies a merely short term program effect.

Key Words: Poverty, conditionality, social protection, panel data analysis, Sustainable Development Goals (SDGs)

1 Introduction

Eliminating poverty in all its forms is one of the main challenges that countries worldwide are confronted with. Globally, extreme poverty has decreased by more than 50%, moving from 1,900 to 836 million from 1990 to 2015. Without a doubt, there are still too many people living with an income below US\$1.90 a day who are confronted with the challenge of satisfying even the most basic needs. This is why the first Sustainable Development Goal (SDG) ("Goal 1: End poverty") represents one of the main objectives of the more than 150 countries that signed the UN Agenda 2030 for Sustainable Development in the year 2015.

The above mentioned is reflected in various government social protection interventions focused on attending poverty issues. For example, the intervention programs focused on poverty that have been implemented in Latin America for over two decades, such as PROSPERA–Oportunidades, which has been in operation in Mexico since the year 1990.

This type of program focuses on providing social government services by way of direct cash transfers to poor families who are often conditioned to the realization of certain actions related to the use of public education and health services.

After more than two decades of implementation, these Conditional Cash Transfer (CCT) programs were created in an innovative, multidimensional effort to combat poverty in a single government intervention. Evaluations made for these programs provide evidence of its positive impact related to the accumulation of human capital among the beneficiary

families, and as a consequence, their opportunity of accessing better options for social inclusion increase.

Yet, there is much debate about conditional cash transfers as anti-poverty programs. One of the key arguments is based on the modification of the use of related health and education services by participating families in the long term.

In this research, the effectiveness of the conditional cash transfer programs as a long term incentive for the use of public services – in health and education – among beneficiaries of PROSPERA-Oportunidades is analyzed. A longitudinal analysis with panel data from the MxFLS (Mexican Family Life Survey), collected in 2002, 2005-2006 and 2009-2012, is conducted.

The structure of this document consists of six parts: the first part describes the conceptual design of the PROSPERA-Oportunidades program. In part two, the main program achievements from its 20 years of implementation are presented. The third discusses the problem of conditionality. The fourth describes briefly the MxFLS survey while the fifth part presents the estimations and results and closes with conclusions and some further comments.

2 PROSPERA-Oportunidades Conditional Cash Transfer Program

The PROSPERA-Oportunidades program is currently the most important anti-poverty program operating in Mexico, especially in rural areas. Its importance can be seen in the coverage of 6.1 million families and the current budget of around 82.151 billion Mexican Pesos (approximately US\$ 4.6 billion)¹ (DOF 2016).

With an operating cost of less than 5 cents of a Mexican Peso (approximately US\$ 0.003)², PROSPERA–Oportunidades is one of the most efficient CCT programs worldwide (CONEVAL 2013). Its operating cost can be explained by its inter-institutional coordination. For example, the Ministries for Education and Health provide the physical infrastructure (schools and health centers respectively) that are needed to operate this program on a local level.

The PROSPERA–Oportunidades program operates in 115,995 localities throughout the country, 86 per cent of which are rural communities; 3.5 million households (6 out of every 10 families that benefit) live in communities with less than 2,500 inhabitants (see Table 1) (SEDESOL 2016).

Table 1: PROSPERA-Oportunidades. Number of households that benefit by locality. 2015

Rural Localities <2,500	Semi-urban Localities from 2,500 to 4,999	Urban Localities >15,000	Total
3.5	1.2	1.4	6.1

Source: DOF (2016)

¹ <http://www.banxico.org.mx/tipcamb/tipCamIHAction.do> (Consulted: 22/07/2017).

² <https://transparencia.info.jalisco.gob.mx/sites/default/files/Costo%20de%20operaci%C3%B3n%20y%20metodolog%C3%ADa%20de%20evaluaci%C3%B3n%20del%20Programa%20Prospera%202015.pdf>

PROSPERA-Oportunidades is a conditional cash transfer program that is directed at poor families; its main objective is to break the inter-generational poverty cycle. Since the beginning of its operation (1997), the beneficiary families receive a monthly cash transfer that is linked to them sending their children to school and to them attending health centers to receive preventive care for their children. Also, it is a requirement for the heads of household, mainly women (around 90%), to assist nutritional workshops organized in health centers and during monthly meetings that take place in their locality with the objective of sharing operational program information (DOF 2016, SEDESOL, 2008, 2009, 2017).

2.1 Conceptual design

In its three operational phases - PROGRESA (1997-2002), Oportunidades (2002-2014) and currently PROSPERA (2014) - the program has always been guided by two basic criteria. The first is related to the selection mechanism of participating families and the second is linked to the principles of co-responsibility and conditionality for granting support.

The principle of "co-responsibility" implies shared responsibility and is explained by Molyneux (2006, 434) as a "quasi-contractual agreement", between the State and civil society where in exchange of certain rights offered by the government – through anti-poverty programs – the beneficiaries of PROSPERA-Oportunidades commit to complying with certain obligations. Conditionality, as will be explained further on, emerges from the co-responsibility principle as an operative element to promote or ensure the use of public schooling or health services by poor Mexican families.

2.2 Participant selection

As mentioned previously, the families that benefit from the PROSPERA-Oportunidades program are selected according to criteria and mechanisms that operate in four different stages. First, the localities with the largest treatment priority – located within any context whether this is urban, semi-urban or rural – are selected based on socioeconomic criteria such as the percentage of households with low monetary income and alphabetization and inadequate living conditions (lack of sewage systems, electricity and running water). At the same time, a physical infrastructure verification process is in place in the selected localities, required for implementing PROSPERA-Oportunidades (health centers and schools). According to the current regulations, communities without health services or schools cannot participate in this program (DOF 2016, SEDESOL, 2008, 2009).

In the second phase, and after defining the localities that require attention, the families that are susceptible to being chosen for the participation in the program are selected through a mechanism of focalization based on a method of census-surveys that are applied at all the households located in the selected localities. The latter is done in order to collect information about the living conditions, demographic data and socioeconomic information about every family.

Third, the information gathered through the applied survey is analyzed in a statistical study known as discriminatory analysis. This determines the families to be included in the program. The eligible households are prioritized as follows: a) Families whose estimated per head income is below the Line of Permanent Verification of Socio-economic Conditions. This line is defined by the estimated total monetary income value of the household, sufficient to cover

the basic food basket. At the same time, the family suffers from similar conditions related to lack of schooling, access to health care and access to food as those households whose estimated income lies below the Minimum Line of Well-being. b) Families with members of less than 21 years of age. c) Families with female members in their reproductive age. d) Families with a specific poverty level according to one of the deprivations defined by the National Council for the Evaluation of Social Policy (CONEVAL 2014) (i.e. housing quality and living spaces, basic housing services and access to social security). The fourth – and last – stage is carried out at a community assembly where proposals for families incorrectly left out or included are taken into consideration (DOF 2016, SEDESOL, 2003, 2004, 2005, 2006, 2007, 2008, 2009, Skoufias, Davis & de la Vega, 2001).

2.3 Conditional Cash Transfer

The PROSPERA–Oportunidades program searches to develop the human capital of Mexican families living in poverty. Therefore, the cash transfers include: an educational scholarship aimed at increasing the years of schooling for children and reducing the ratio of school abandonment, especially for girls. In addition it provides cash to improve the nutritional intake of the family (SEDESOL, 2003; 2004, 2005, 2006, 2007). In the same way, since 2007-2008, the government has added a food support program (SEDESOL, 2007). The maximum amount of money that families can receive on a monthly basis is detailed in Table 2:

Table 2: PROSPERA-Oportunidades, Transfer payments. Monthly maximum amount received by the beneficiary families (in US Dollars)³

Concept	Maximum amount of a family with recipients of scholarships in primary and secondary school	Maximum amount of a family with recipients of scholarships in primary, secondary and High School
Food Support	18.87	18.87
Complementary Food Support	7.89	7.89
Maximum Scholarship Amount	76.06	139.16
Total⁴	102.82	165.92

Source: Own elaboration with data from the National Coordination of PROSPERA, Social Inclusion Program (SEDESOL 2017, 121-123).

People older than 70 years of age living in a family that receives the PROSPERA-Oportunidades program benefits receive an estimated amount of US\$ 20.85 per month. In addition, since 2010, this program has added an extra benefit of cash transfer payments of

³ The support amount in Dollars was calculated based on an exchange rate of 17.7492. Information obtained from: "Tipo de cambio para solventar obligaciones denominadas en dólares de los EE.UU.A., pagaderas en la República Mexicana", BANXICO, accessed 26 July 2017, <http://www.banxico.org.mx/portal-mercado-cambiarior/>.

⁴ It is important to note that the maximum amount of support received by the families participating in the program, calculated in Mexican Pesos (MXN Pesos), presents a nominal increase of about 20% during the 2010-2016 time period. Nevertheless, based on the devaluation of the Mexican Peso related to the Dollar over the past years, and as a consequence, this has led to a 32% reduction in the maximum amount of the same support for the same years in Dollars. In this way, while the maximum program amount in Dollars was US\$ 126.18 and US\$ 203.22 respectively, today it is 102.82 and 165.92 as shown in Table 2.

US\$ 6.76 per child (up to three children) between the ages of 0 and 9 (DOF 2016; SEDESOL, 2009; 2010).

It is important to note that the payment of money in cash is conditioned to sending the children to school and to the whole family assisting health centers for periodic medical check-ups (Ibid). Various evaluations made of the PROSPERA-Oportunidades program, the majority of which was undertaken within the first 10 years of its implementation, show a positive impact on education, health and nutrition⁵. These results will be explained further in the next paragraph.

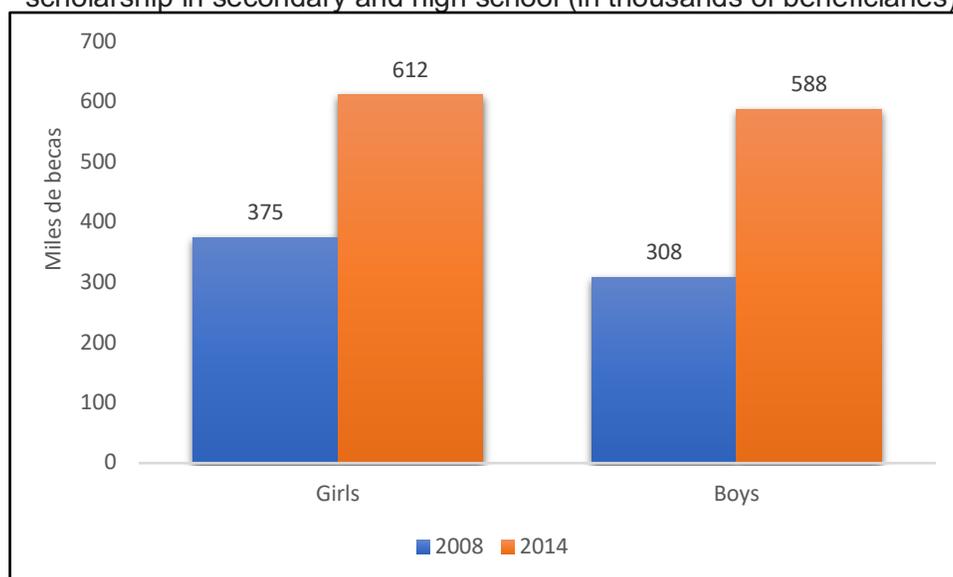
3 PROSPERA-Oportunidades 20 years after its first implementation

As was shown, over the 20 years of its implementation, PROSPERA-Oportunidades has had positive results in the three components focused on the development of human capital: education, health and nutritional benefits.

In the case of educational benefits, the presented results show a positive effect in children's school assistance, especially that of girls who receive a larger sum in secondary and high school (equivalent of 7th to 12th grade) (SEDESOL 2010, SEDESOL 2008, Behrman, Parker y Todd 2005, Parker 2003, Parker 2005, SEDESOL 2016, SEDESOL 2014).

The gap between school assistance of girls and boys has decreased. In fact, since the end of the last decade, slight investments have been made in the medium-high levels of education (see Graph 1).

Graph 1: PROSPERA–Oportunidades program. Number of boys and girls with educational scholarship in secondary and high school (in thousands of beneficiaries)



Source: Own elaboration based on official data for PROSPERA-Oportunidades (SEDESOL 2008, SEDESOL 2014)

⁵ According to public information by the National Council for the Evaluation of Social Policy (CONEVAL), the last public impact evaluation of the PROSPERA-Oportunidades program dates back to the year 2012. <http://www.coneval.org.mx/Evaluacion/Paginas/InformeEvaluacion.aspx> (last access: 28 July 2017)

3.1 Health and nutritional benefits

In the same way, PROSPERA-Oportunidades has had favorable results in the health and nutrition of the beneficiaries. This is due to the fact that the obligatory medical check-ups include the basic package of 108 elements of preventive health care. Children of up to two years of age (or five if they are under-nourished) are weighed, measured and vaccinated and receive nutritional supplements every two months. Even though these services are centered around children of less than five years of age and adult women (especially during pregnancy and breast feeding) other medical services, including prevention and control of various diseases such as tuberculosis, hypertension, diabetes, cervical cancer, are provided to all family members (SEDESOL 2008, 36-41).

With reference to the results, data shows a positive impact on health and nutrition. For example, maternal deaths and infant mortality have decreased by 11 and 2 percent respectively (SEDESOL 2010). The health of children less than 6 years of age has improved, the number of sick days per year has been reduced by 20 percent with an average number of 2 days (De la Torre s.f.).

In the same way, data from 2012 shows a decrease of 22% in chronic child under-nutrition affecting 12% of the participating infant population (SEDESOL 2014). In the case of anemia, an important decrease was also achieved. This is why, in the same year of reporting, only 25% of the total infant population presented this disease, compared to 61% in the year 1999 (SEDESOL 2014, SEDESOL 2010).

Changes in eating habits, associated with the mother assisting health workshops organized by the program, show an increase of 22% in the consumption of protein, fruit and vegetables in the families that benefit (15% urban and 7% rural), during the first 10 years of the implementation of PROSPERA. A positive health impact is also reflected in a 6% reduction in adult obesity in rural zones included in the program. For the year 2008, it is estimated that only 17% of the group of recipients was obese. In the case of diabetes – data for the same time period of analysis – a 22% decrease in adult diabetes can be observed, with 19% prevalence in rural PROSPERA-Oportunidades recipients (SEDESOL 2008).

Recently, in September 2014, the program included a component named “Social Inclusion”, oriented toward developing the capabilities of the recipients as it relates to inclusion: financial, productive and work⁶. Without a doubt, the mentioned component is only conceptually known and to this day there is no knowledge of any public evaluation document with the first results which is why we are waiting to learn about the mechanisms developed by the National Program Coordination to define and identify the adequate population of PROSPERA-Oportunidades that is to receive this type of support and especially the effects that this component has on the family and the social and economic environment that they live in.

Official data exposed previously provides evidence of the positive CCT program effects on specific topics such as children’s school enrollment, nutritional levels (especially in small children) and the health conditions of the families participating in the program. Yet, the

⁶ DE OPORTUNIDADES A PROSPERA, ¿SOLO UN CAMBIO DE NOMBRE?, Expansión, Accessed 26 July 2017. <http://expansion.mx/economia/2014/10/02/de-oportunidades-a-prospera-un-cambio-fundamental>

majority of this data is based on transversal evaluations in one single time dimension. Hence, they do not reveal – and in fact they can hide – the causes of poverty in families, such as lack of access to long term sustainable work opportunities and an adequate salary that allow the participants to satisfy their own and their family's basic needs (Farrington y Slater 2006, Hall 2008, Handa y Davis 2006, Vizcarra 2002).

In addition, independent impact evaluations for PROSPERA-Oportunidades (de la Torre García s.f., Cohen, Franco y Villoro 2006, Bouillon y Tijerina 2006, Bautista, y otros 2003, Behrman, Parker y Todd 2005, Martínez 2012) are also transversal and do not pay sufficient attention to other questions that are included in the design and application of this type of anti-poverty program. This is the case for conditionality of cash transfers and its long term effect.

4 The issue of conditionality

As mentioned previously, the co-responsibility and conditionality criteria are part of the conceptual design of the PROSPERA-Oportunidades program, and as such they are considered a positive element to promoting the use of public education and health services by the poor Mexican families.

There isn't a clear distinction between the understanding of co-responsibility and conditionality, as both are related to obligations and sanctions that are part of the requirements of this type of anti-poverty programs. On an operational level, conditionality is more significant due to the link between the program requisites and the benefits of conditional cash transfers (see Table 2). This type of connectivity is relevant due to the fact that it is based on a perception of poverty as a cultural problem of poor families related to human capital formation and as their lack of interest in health and education investments. Due to this perception, the need to resolve structural causes that are responsible for leading these households into poverty – such as lack of income and inequality - is pushed aside.

In the same sense, Adato et al. (2000) explain that the conceptual design of the conditional cash transfer program in Mexico has been established under the assumption that poor households do not invest sufficiently in their human capital and thus generates a vicious circle of intergenerational poverty where the children abandon school and are destined to suffering the long term effects of this deprivation.

The previous reinforces the idea of a “contractual agreement” between the Mexican State and the poor families where the former conditions the behavior of the latter (Scott y Marshall 2005, Molyneux 2006). In this way, the introduction of the conditionality criteria in the conceptual design of the PROSPERA-Oportunidades program is perceived as an effective mechanism in the transformation of the cultural habits of the poor families by the program authorities and with it an increase in the demand of public education and health services by this part of the population.

Even more so, if one expects conditionality to have a favorable impact on the internalization of preventive health and education “habits” by the poor families of the country, this type of effect is restricted to the program participants and therefore not necessarily permanent (or long term). This type of argument will be developed with major detail in the next chapter where the results obtained from a longitudinal analysis with panel data from the MxFLS

survey for the respective years of observation (2002, 2005-2006 and 2009-2012) are discussed.

5 Estimations and results

This section is divided into three parts: in the first part, the data set that was used to establish the control and treatment groups is presented. The second part describes the estimation process and the used variables. The third part presents the results and briefly discusses the findings.

5.1 Data

The household is defined as a group of people that live together in a physical space, whether they are related or not, and who share maintenance costs and prepare their food in the same kitchen (SEDESOL, 2005). In this work, the group of households taken into consideration is chosen from the Mexican Family Life Survey (MxFLS) for the time period from 2002 to 2012.

The MxFLS is a longitudinal, multi-thematic panel survey that, for the very first time, allows analyzing data for over a 10-year time period in Mexico, collecting qualitative and quantitative data of a sample of 35,000 individuals, 8,400 households, 16 entities and 150 communities (UIA, CIDE, Duke University, 2016).

The base line for the MxFLS was established in 2002, the second round of data was collected from the same individuals in 2005-2006 with a 90 per cent re-contact rate at the household level and the third round of data was collected between 2009 and 2012. The data is divided into household and community level information. Household information is split into individual and household data whereas the community information refers to data as it relates to schools, health services and general characteristics of the observed community. It is important to identify the households and its members along the 10-year observation period.

For the empirical analysis, we first differentiated between those households that did and did not receive the conditional cash transfer program PROSPERA-Oportunidades⁷. We then identified the questions from the MxFLS that would shed some light on the underlying hypothesis that CCT programs such as PROSPERA-Oportunidades in Mexico do in deed have positive short term effects but lack positive long term impact. These were related to the characteristics of the people included in the control and treatment groups and information about their children's school attendance and assistance of health centers for preventive check-ups.

5.2 Methodology

In this work, the used process is that of matching (Garrido et al., 2014) under four estimation schemes: nearest neighbor, stratification, kernel and radius (Becker & Ichino, 2002). The objective is to calculate the Average Treatment effect on Treated (ATT) of the PROSPERA-Oportunidades conditional cash transfer program on the beneficiaries as it relates to school

⁷ It is important to note that during the time period of analysis, this programme was just called Oportunidades.

and health service assistance during the time period 2002-2009. To determine the ATT, we first calculated the Propensity Score Matching (PSM), based on the following definition by Rosenbaum y Rubin (1983):

$$E[D|X] = P[D = 1|X] \quad (1)$$

where D is a dummy variable that differentiates between control and treatment groups and X is a matrix that unites a set of variables that characterize both groups. The program effect by means of PSM requires the balancing property, which establishes that the observations with the same Propensity Score will have the same distribution of observed characteristics, independently of whether or not they received treatment. In this way, individuals of the treatment and control groups, which should be similar in their average, are compared. In other words, observations where the difference between its corresponding PSM is minimal in the matching process. Formally, if N^T is the number of people in the treatment group, N^C the number of people in the control group and Y_i^T, Y_i^C the respective observed results, then the average effect that the treatment has on those treated (ATT) can be shown as follows:

$$ATT = \frac{1}{N^T} \sum_{i \in T} \left[\sum_{i \in T} Y_i^T - \sum_{i \in T} \sum_{j \in C(i)} w_{ij} Y_j^C \right] \quad (2)$$

where $C(i)$ is the set of members of the control group paired with the observation i of the treatment group according to the PSM value $p_i, i = 1, 2, \dots, T$ and $w_{ij} = 1/N_i^C$ the weighting according to the nearest neighbor, kernel, radius or stratification estimation techniques (Becker & Ichino, 2002), where $i \in T$ and $j \in C(i)$.

The number of observations used for the estimation consists of 2,347 children between 5 and 15 years of age, representing 1,995 observations for the control group and 352 for the treatment group.

In this case, the treatment is determined by the individual who receives support from PROSPERA-Oportunidades in the years 2002, 2005 and 2009, according to the MxFLS. It is important to mention that the survey allows for following the same individual along those three observation periods.

The outcomes that we analyzed are school assistance and doctor visits in the three time periods.

To calculate the PSM, the following observed characteristics of the household were considered:

- a) The age of the child (age).
- b) A dummy variable (gender) with a value of 1 if the person is a boy, zero in all other cases.
- c) The index of municipal marginalization according to CONAPO (im). This variable is an indicator for social exclusion with the dimensions education, housing and availability of goods and services. A higher number of the index indicates a lower level of marginalization.
- d) A dummy variable (rural) with a value of 1 if the community has less than 2,500 inhabitants.
- e) Years of schooling of the head of household (educ1).
- f) Years of schooling of the spouse of the head of household (educ2).
- g) A dummy variable (couple) with a value of 1 if the head of household has a partner that he/she lives with or is married and zero in all other cases.
- h) A dummy variable (treatment) with a value of 1 if the individual is supported by the program.

- i) A dummy variable (school) with a value of 1 if the individual goes to school during the observation period.
- j) A dummy variable (medical) with a value of 1 if the individual takes advantage of preventive medical services and/or vaccination during the observation period.

Table 3 presents descriptive statistics for the variables of the control and treatment groups:

Table 3: Descriptive statistics for the treatment and control groups

Variable	Treatment		Control	
	Mean	Standar Deviation	Mean	Standar Deviation
age	8.03	1.94	8.06	1.95
gender	0.46	0.50	0.50	0.50
im	-0.14	0.90	-0.94	0.84
rural	0.90	0.30	0.44	0.50
educ1	4.00	2.95	5.53	3.58
educ2	3.74	3.07	4.87	3.87
couple	0.98	0.10	0.91	0.28
school	0.88	0.31	0.93	0.24
medical	0.14	0.35	0.14	0.34

Source: own elaboration with data from the MxFLS 2002-2012.

In Table 3 it can be observed that the treatment group in its majority consists of rural households with a higher level of marginalization, a lower number of years of schooling of the father and mother and with a slightly smaller proportion of boys that participate in the PROSPERA-Oportunidades program. Yet, regarding school and health service assistance, similar proportions can be observed, even though a matching procedure, comparing only those individuals with similar observable characteristics, is still missing.

Table 4. Estimation of the ATT in 2002 (short-term impact).

School	ATT	Standard Deviation	t
Nearest neighbor	0.01	0.026	0.391
Stratified	0.061	0.021	2.883
Kernel	0.059***	0.020	2.967
Radius	0.014	0.060	0.234

Medical	ATT	Standard Deviation	t
Nearest neighbor	-0.005	0.010	-0.527
Stratified	-0.003	0.006	-0.483
Kernel	-0.002	0.006	-0.392
Radius	0.005	0.019	0.258

Source: own elaboration with data from the MxFLS 2002-2012.

***: 1% significance level.

The evidence shown in Table 4 confirms that the program effect on school assistance is positive. The probability increases by 5.9% compared to those that do not participate in the program. This conclusion cannot be drawn for the variable medical assistance. It is important to note that only one of the estimation processes shows statistical significance in the short term and that this conclusion cannot be upheld for the long term, see Table 5.

Table 5. Estimation of the ATT in 2002 - 2012 (long term impact).

School	ATT	Standard Deviation	t
Nearest neighbor	-0.020	0.028	-0.713
Stratified	-0.024	0.021	-1.150
Kernel	-0.026	0.020	-1.298
Radius	-0.010	0.042	-0.150

Medical	ATT	Standard Deviation	t
Nearest neighbor	0.009	0.006	0.923
Stratified	0.005	0.007	0.676
Kernel	0.002	0.007	0.246
Radius	-0.002	0.026	-0.074

Source: own elaboration with data from the MxFLS 2002-2012.

In Table 5 the estimation of the ATT is shown for the two outcomes, and under the four classical procedures. It can be observed that the program effect is not significant. This tells us that the probability of a child assisting school is not substantially affected by the PROSPERA-Oportunidades program. The result for medical assistance is the same. In other words, remaining in school or school retention of an individual does not vary substantially under the program for the years 2002, 2005 and 2012. On average, the demand behavior for health and educational services is the same for the beneficiaries and for the control group which suggests the need for evaluating the historical program results with more detail.

6 Conclusions

This research analyzed the effectiveness of conditionality in direct cash transfer payments as long term incentive for the use of public services – health and education – among the families participating in PROSPERA-Oportunidades. In order to do this, a longitudinal analysis was conducted with panel data from the MxFLS (Mexican Family Life Survey). The Average Effect of Treatment on the Treated (ATT) was estimated with the analysis technique “Propensity Score Matching” for the time period 2002-2012. The encountered results show that the program impact on the demand of health and educational services is relevant in the short term. Nevertheless, this effect is not maintained in the long term (see Tables 1 and 2).

As previously shown, there is a debate about the conditionality of direct cash transfers in anti-poverty programs. One of the key arguments is based on the modification of the use of these health and educational services in the long term by the participating families. Empirical

evidence shown in this work shows little significant changes in the behavior of its beneficiaries related to continued (or extended) long term demand of public services.

The previously mentioned suggests that, with time, the program can lead to additional costs for the participants (i.e. such as time dedicated to working) and therefore, the families – and more specifically their children – tend to abandon the program. In other words, if the preferences of the poor are not aligned with the requirements, they tend to reduce their gains in well-being and for some families (usually those most in need and with specific sociodemographic characteristics) it is difficult to comply.

Yet, the shown results of this work correspond to a specific period of analysis (2002-2012) and are therefore not conclusive which is why it is recommended to evaluate the program results throughout its entire history with major detail to provide further insight on this type of analysis. In addition, it would be important to focus on other questions that have emerged after 20 years of implementing the CCT program in Mexico. This is the case for the relation between demand for social services by poor families and the quality of these services, such as structural conditions that deal with this phenomenon through the inclusion and work mobility of the boys and girls, beneficiaries of scholarships granted by these governmental anti-poverty programs.

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