Edited by

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Research and Public Policy

The Collaboration Between Universidad de la República and MIDES for the Implementation of PANES in Uruguay

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PEGNet

This book is about the collaborative experience carried out for the implementation of a social plan in Uruguay, Plan Nacional de Atención a la Emergencia Social (PANES), from the standpoint of both the University´s research team and the experts from the Ministry of Social Development that took part in it. In 2009, PEGNet awarded this experience the Best Practise Award for effective cooperation between research and practice. Three years later, we offer this book as a contribution to the ongoing debates on social program design and implementation.

Research and Public Policy: the Collaboration Between Universidad de la República and MIDES for the Implementation of PANES in Uruguay

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Foreward

Exactly three years ago we awarded the first PEGNet award for effective cooperation between research and practice to the cooperation between the University and the Ministry of Social Development in Uruguay (Verónica Amarante & Andrea Vigorito, Economics Department of the University of Uruguay and the Ministry of Social Affairs in Uruguay) for the "Design and implementation of conditional cash transfer programs".

Considering the experiences that we made in between then and now, we can even more confidently say that the kind of successful cooperation that exists between UdelaR and MIDES is a rare exception!

The idea of awarding this prize was born out of the observation that the policy impact of research is often very weak, because there is a lack of cooperation between researchers and practitioners in the formulation of the relevant research questions, the design of the research including the data collection and a lack of shared knowledge with respect to methodology and methods. Researchers speak a different language and ask different questions than policy makers.

Hence, we decided that this should change. There have always been exceptions and we thought it would be good to showcase them and present such exemplary cases at PEGNet conferences as it may help us all, researchers and practitioners, to get more out of research and to implement better policies. To find these good cases, we initiated the PEGNet Best Practice Award. Each year since 2009, we call for submissions of best practices in effective cooperation between research and practice. At our yearly conferences several of them are presented and one wins the PEGNet Best Practice Award.

In accordance with the idea that a successful cooperation needs to benefit both parties and that, in order to have a real impact, it should be sustainable and exchange based, we take into account research and policy needs in addition to the design of the link between the two parties. Considering these points, we agreed on the following criteria for assessment:

1. The relevance of the research questions: Does the research address the right questions in the policy or project context?
2. The design of the link between research and practice/policy-making: Do the processes ensure that research findings find their way into policies?
3. Quality of research: Does the research use state of the art scientific techniques?
4. Sustainability of partnership: Are the partnerships between researchers and practitioners, as well as those between North and South (where applicable) designed to be sustainable?
5. Originality of dissemination: Are there original efforts to disseminate policy and research findings to specific user groups e.g. within administrations and/or to a wider public or community?

These criteria form the basis for the assessment that is made by an evaluation committee that consists of two researchers and two “practitioners”. No distinction is made on whether a policy maker, research department, NGO or development program initiates the cooperation.

When we received the application from Verónica Amarante and Andrea Vigorito, we were immediately impressed by the extent of cooperation and cooperation partners. Research supported the policy design, the policy implementation as well as the policy impact assessment in an exemplary teamwork between research institutes, a governmental organization, namely the Ministry of Social Development in Uruguay, and the Social Security Institute (Banco de Previsión Social) of Uruguay. The mutual learning process and long term strand of work and cooperation between the University and the Ministry is vividly described in this book. Three years after the award was granted we are still following their activities and the impacts they had and still have.

Their project addresses very relevant questions in the policy context of Uruguay, namely to alleviate short term and long term poverty through school attendance, public work, vocational training and food transfers. Our impression is that the research team spent much effort on the development of a targeting method and the design of the monitoring and assessment tools, which is an important aspect in government transfer programs like the one implemented in Uruguay. We also feel that the project design and assessment make use of state of the art scientific techniques and their results are being published successfully. This alone is an exceptional case. Often modern research designs and well-designed empirical analysis are lacking because of time or data constraints. However, all in all, this project impressed all of us in particular by the quality of cooperation, its direct link between research and policy-making and the quality of the capacity building component which was, in addition, South-South and not, as so often, North-South.

At the PEGNet conference 2012 the Best Practice Award will be awarded for the fourth time to best practices in cooperation between researchers and practitioners in development cooperation. We wish that many people will benefit from reading this book in the design or improvement of their respective cooperation endeavours.

Linda Kleemann
Managing Director
PEGNet

Preface

This book introduces and analyzes the collaborative experience carried out for the implementation of Plan Nacional de Atención a la Emergencia Social (PANES) from the standpoint of both Universidad de la República (UdelaR) research team and the MIDES experts that took part in it.

The book is divided in four parts. Part I describes the main features of the program. Part II presents some examples of the research work carried out by UdelaR to inform the implementation of PANES whereas Part III is devoted to the analysis of the implementation of PANES and of the cooperation itself. Finally, part IV provides a general reflection on the nature and characteristics of the relations between research and practice.

As these pages try to illustrate, the process was fast, complex and full of unexpected challenges. But, most of all, we believe that this collaboration was a learning opportunity for all who participated. The institutions involved were able to develop a long-lasting nexus, with the final objective of narrowing the gap between research and policy. For us as researchers, it was a huge responsibility and also the chance to learn about the process of policymaking. At the end of this stage, we reaffirm our vision of academic research as a contribution for attaining knowledge which may help improving people's lives. We are grateful to all the people that participated in this process and taught us so much. When we received PegNet's award, we immediately thought of a book in which to reflect this experience.

Verónica Amarante and Andrea Vigorito

September, 2012

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Introduction

Uruguay has high levels of human and social development relative to the rest of Latin America. Since the mid-1990s, however, poverty and income inequality have increased, particularly during the economic recession that started in 1999 and culminated in the 2002 economic crisis. When the economy began to show signs of improvements in the last quarter of 2003, the level of poverty was twice as high as in 1998.

In November 2004, the Broad Front (*Frente Amplio*), a center-left political coalition, won the parliamentary election for the first time in Uruguay. The Frente government's platform was strongly focused on implementing new redistributive policies, particularly of the National Plan for Social Emergency (PANES, in Spanish), with the goal of improving the wellbeing of low-income groups. The new government came into office on March 1, 2005. To implement the PANES Plan, the Ministry of Social Development (MIDES) was created by parliament on March 28, 2005. The cooperative relationship that was developed in this context is presented in this book.

In March 2005, a group of people that would become the MIDES officials requested assistance from the University of the Republic (UdelaR) in the implementation of the National Plan for the Social Emergency. They were already being assisted by the Uruguayan Social Security Bank (BPS, in Spanish), the government agency in charge of social security.

After this first contact, an agreement was signed between UdelaR and MIDES for the provision of technical assistance. At the time, the primary concern was to solve concrete implementation problems: defining institutional design criteria; selecting priority geographical areas where MIDES could identify beneficiaries; supporting the organization and execution of fieldwork; creating a beneficiary database and carrying out data entry; determining the method to select beneficiaries; and creating the application forms for the plan. Deadlines were tight, as PANES was one of the main elements of the new government program and there was pressure for rapid implementation. Also, the plan represented a significant challenge because there was no prior experience of such fieldwork for public policy implementation in the country. Up to that point in time, the selection of beneficiaries of non-contributory benefits had been based on the formal

information available from the BPS, income statements and a very limited amount of socio-economic data. This data essentially covered school attendance and family information in the case of family allowances, and social worker visits in the case of pensions for low-income senior citizens over the age of 70. Thus, one of the main tasks was to expand databases in order to correctly identify beneficiaries of the new plan.

As the initial tasks were numerous, several departments of UdelaR became involved in the process, which was also a new thing for the institution: the Institute of Economics (IEcon), the Institute of Statistics, the Institute of Political Science, the Department of Sociology and the IT Service all took part in the project. Once the program was implemented, the Institute of Economics, the Department of Sociology and the Institute of Statistics designed and carried out a quantitative evaluation of the PANES plan. Meanwhile, the Institute of Political Science prepared a thorough survey of the existing social programs known as the Repertoire of Social Programs. The goal of this Repertoire was to identify existing programs to avoid duplication. Also, IEcon wrote a report about PANES's beneficiary population that compared data from the Plan's official records to the National Household Survey. Researchers from IEcon prepared two draft questionnaires for the participants of the Work for Uruguay Program: one for the applicants and one for those who completed the Program.

During the second quarter of 2007, when the PANES Plan was approaching its conclusion, researchers from the Institute of Political Science and the Institute of Economics took part in the commission created to prepare an Equality Plan that involved several activities, such as redesigning the family allowances system. No longer pressed for time, more systematic and organized work was performed at this stage. Later, a commission was created to implement the new Family Allowances Program, and members of MIDES, BPS, the Ministry of Economy and Finance, the Ministry of Labor and Social Security, and the Institute of Economics took part in this commission. The collaborative relationship between these organizations and agencies is currently maintained through the participation of university researchers in the Equality Plan's monitoring commission, several cooperation agreements to continue to monitor social programs involved in the Repertoire and the impact evaluation of the Family Allowances Program.

This book describes several of these collaboration examples, along with their achievements and difficulties. The core features of the program are introduced in part I. Part II provides a summary of the most important results obtained through the main collaboration activities between UdelaR

and MIDES. In Chapter 2, the authors describe the method used to select program beneficiaries, as developed by the Institute of Economics of the School of Economics. Chapter 3 presents the results of the PANES quantitative impact evaluation carried out by the Institute of Economics, and shows how this developed into a research program that continues through the participation of researchers from other universities. Indeed, Marco Manacorda from Queen Mary, University of London and Edward Miguel from the University of California, Berkeley were invited to participate in the impact evaluation of the PANES plan. M. Manacorda helped design the research strategy and was present throughout the discussion and evaluation analysis. His contribution was invaluable for the preparation of a highly ambitious research program that exceeded its initial objectives. E. Miguel took part in the process of preparing the follow-up surveys and developing the empirical strategy. Both researchers worked on the data analysis and contributed to several papers on impact evaluation.

Chapter 4 presents the experience of the Institute of Political Science during the preparation of the social policies Repertoire which continued after the conclusion of the PANES Plan. Since Chapters 2 through 5 focus on the presentation of final results, all aspects pertaining to interactions between the relevant actors involved are largely bypassed until the following section. Part III deals more thoroughly with these interactions, which form a fundamental and distinctive feature of the PANES experience. Here, the experience is assessed by participants from MIDES (Chapter 5) and from UdelaR (Chapter 6).

Part IV examines the cooperation between research and policies more generally, with an emphasis on elements that could justify analyzing these types of experiences from multiple analytical perspectives.

Lastly, Appendix I includes a list of all publications arising from this cooperative experience that were prepared by UdelaR researchers.

Part I: The intervention

Chapter 1. The main features of PANES

Verónica Amarante
Andrea Vigorito

Uruguay has one of the highest levels of public social spending (PSS) in Latin America, both per capita and as a percentage of GDP. However, due to the age structure of the population and the broad and early coverage of the Uruguayan social security system, social spending has remained strongly focused on contributory transfers to social security.

Until 2004, the income transfer system mostly involved benefits for formal workers, whether active or retired (UNDP, 2008). For reasons that we will present shortly, in 2004 the government attempted to develop a social security system where benefits were independent from an individual's capacity to contribute to it. The beginning of this experience can be seen through the expansion of the 2004 Family Allowances Program and the PANES plan.

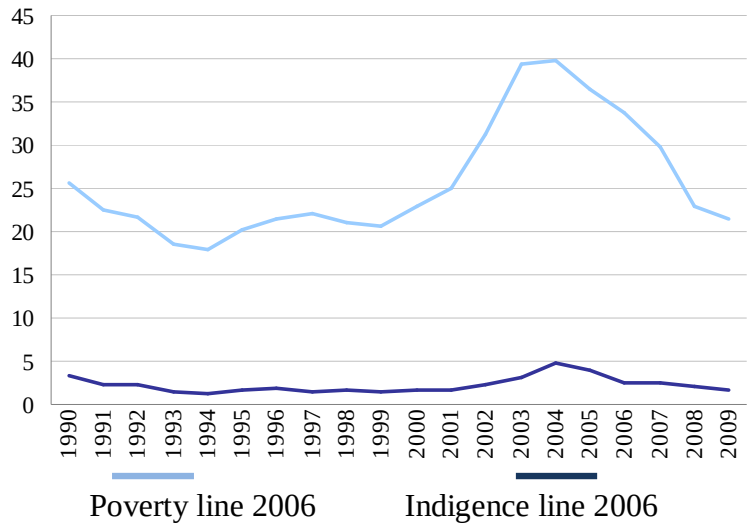
Although Uruguay enjoys a privileged position in terms of social welfare relative to most Latin American countries, poverty, indigence and income inequality began to rise by the 1990s. When the recession hit in 1999, the shortcomings of the Uruguayan social security system became highly evident and intensified after the 2002 economic crisis. These include increased transfers to the elderly, increased labor market inequalities and unemployment rates, and changes in the fertility trends that generated high levels of poverty in many households with children.

During the 2002 crisis, as opposed to what happened in Argentina and other countries in the region, the government protected a group of existing social programs rather than implement new policies to curb the sharp decline in income (UNDP, 2005). Accordingly, the failure to counter the significant gaps in the coverage of the social security system among households with children caused the poverty rate to double between 1998 and 2003. In 2004, the parliament passed a law that expanded the Family Allowances system for households under a certain income threshold. The allowance was not tied to their contributory status, but neither the design of the program nor the size of the transfer were substantially modified.

When the new government came into office in March 2005, the poverty rate was 29.4% and the indigence rate was 3.5% (graph 1).[1] This situation led to implementation of the PANES plan, as announced by the new center-left coalition that took office. From the beginning, PANES was designed and was introduced to Uruguayans as a temporary two-year intervention (2005-2007). Accordingly, allowances came to an end in December 2007 and PANES was replaced by the Equality Plan, a new program that is discussed in the final section of this chapter.

PANES consisted of a number of interventions, but its main component was a monthly income allowance that would cover 20% of the households classified as poor (around 8% of the total population).

Graph 1. Poverty and indigence in Uruguay. Urban areas. 1990-2010



Source: based on data from Uruguayan household surveys

The main goal of PANES was to ensure that beneficiary households had opportunities and could benefit from instruments for poverty relief in the short run, and to help bring them out of poverty and social and economic exclusion in the medium term. The Program thus primarily involved cash and food allowances and interventions to support living conditions.

The main and broader activities of the Plan were: Citizen Income (IC, *Ingreso ciudadano*), Exit Road (*Ruta de salida*), Work for Uruguay (TxU, *Trabajo por Uruguay*) and the Food Card (AA,

[1] This data uses official poverty lines published by the National Institute of Statistics (INE, 2009).

Tarjeta alimentaria). The IC was a monthly fixed allowance of 1,360 pesos (around USD 56 in 2005) per household, regardless of household composition.[2] The IC aimed to benefit nearly all PANES beneficiaries, with the exception of those who were already covered by the *Homeless Support Plan* or those who participated in the *Work for Uruguay* program. In principle, the allowance was subject to education and health conditions: children and adolescents under the age of 15 were required to attend school, and children and pregnant women had to go through health consultations. According to statements by MIDES officials at the conclusion of the program, these requirements were never monitored in practice due to coordination difficulties between institutions.

The Exit Road part of the program consisted of six-month training and reintegration activities that could be taken more than once. Initially, at least one adult member of each beneficiary household was required to participate in Exit Road. Civil society organizations (such as social organizations, NGOs, neighborhood committees and unions) were in charge of these activities, and their work was based on a joint proposal prepared together with MIDES.[3] Although the program aimed to reach all PANES beneficiaries, this objective was never achieved.

Work for Uruguay was a temporary and voluntary employment program. Beneficiaries were selected among applicants by drawing lots. One household member would work six-hour days over a limited period of time (four months) and in turn would earn a salary that was twice the amount of the Citizen Income (*Ingreso ciudadano)*. The goal of the program was to increase a household's income in exchange for labor, including work training and labor market reintegration activities. During their participation in TxU, beneficiary households did not receive the *Ingreso ciudadano* transfer. Jobs were proposed by state agencies (such as local officials) and were managed by social organizations. The program was unable to cover all PANES beneficiary households, as was the case with the Exit Road program. In fact, the implementation difficulties faced by both programs limited them to only partial success. The data from the second round of program evaluation surveys shows that Exit Road covered 15.1% of PANES beneficiary households compared to 17% for Work for Uruguay.

[2] This allowance amounted to half the monthly minimum wage (recently updated), and was adjusted quarterly according to the consumer price index.

[3] MIDES organized a selection process between social organizations for the Exit Road program. The projects had to address groups of 25 participants. All participating social organizations had presented approved projects.

The Food Card was aimed at households with children aged 0-18 or with pregnant women. The amount of the allowance depended on the number of children in that household, calculated using an equivalence scale. The ultimate goal was to develop an electronic card system that household members would use to purchase food, cleaning supplies and toiletries. This component was not implemented until 2006 because it required shops to have magnetic card readers.

PANES also included other specific activities that aimed to improve housing conditions, support education, support the homeless, provide additional health activities, and improve public health services and access to basic services. The goal of the Housing Intervention part of PANES was to improve housing in informal settlements by distributing building materials directly to the households so they could make improvements to their housing on their own. The score used to determine allowances were calculated on the basis of household characteristics. However, the criteria for identifying beneficiary neighborhoods and households were unclear. The coverage of this program was extremely restricted, with just around 7000 households taking part in it. Support for education consisted in funding community teachers in schools in critical situations. Health interventions included, for example, medical, dental and eye (cataracts surgery) care for some households. To improve the public health system, funds were transferred to the Ministry of Public Health. Finally, the program beneficiaries were assured access to basic services, namely water and electricity. Many of the households already had illegal access to these services. MIDES was able to formalize the status of approximately 10,000 households that gained access to these basic services in exchange for a small connection fee. Moreover, their debts with the service providers were cancelled.

Applications to register in the PANES program went through a two-stage process. During the first stage, interviewers were sent to regions of the country that had been previously identified the poorest on the basis of child nutrition data from the most recent National Height Census of School Children. The interviewers registered the applicant households and gathered a wealth of information about the household members and their socioeconomic features. This procedure was known as *desembarcos* (disembarking) and covered 12,000 households. They used a form that was similar to the typical household survey form, allowing the interviewers to gather data on sex, age, occupation, level of education, school attendance, health coverage, durable goods, income and housing conditions, among others. The formulation of questions precisely followed that of

the national household survey, making it possible to calculate a total score that determined which households took part in the program (see Chapter 2).

Registration in the program remained open during the two years of the program. Applicants were asked to fill in a short form with information on household composition and the identity card number of each household member. This information was used for a preliminary check whereby households with a declared income that exceeded the program income threshold (according to BPS data) were not included in PANES. The remaining households were visited and basic socioeconomic information was gathered using the form designed by UdelaR experts. This preliminary check eliminated the 10% of applicant households whose income exceeded the threshold.[4] By the time PANES had come to a close, 188,671 applicant households had been visited by PANES interviewers. Each of them received a score that was evaluated in relation to a critical needs index (ICC). Beneficiary households were selected according to this index and the resources available (see Chapter 2).

When PANES ended in December 2007, the government designed an Equality Plan that was first implemented in January 2008. This new plan included the health and taxation reforms that had begun during implementation of PANES. It consisted of a set of interventions that included allowances, protected labor (workfare), productive ventures and educational interventions. The first was a redesign of the Family Allowance system, aimed at households with children. It also included an allowance for food and toiletries with a magnetic card for the 10% poorest of the poor households with children, and an old-age allowance for elderly people aged 65 to 70 that were living in conditions of extreme poverty.

Although the Equality Plan included many former PANES beneficiaries, its target population was significantly broader. The new Family Allowances system deepens the changes already introduced in 1999 and 2004 by separating the benefit from contributory requirements. In contrast with most of the conditional transfer systems introduced in the region since the mid-1990s (see: ECLAC, 2005; Rawlings, 2005), the Family Allowance system is an acknowledged component of the Uruguayan social security system. Its beneficiaries are households with children and adolescents under 18 years of age that meet the program's attendance requirements and are seen as socially vulnerable. This group is assessed with a score that combines a whole

[4] It should also be noted, however, that informal work is particularly common in this segment of the population, and that informal income was not taken into account when these calculations were made.

array of household characteristics, with proxy means tests that are similar to those used by other Latin American programs and by PANES. According to the law passed to regulate the general transition to activate the program, all households that met these requirements and formerly belonged to or had applied to PANES but never participated in it were automatically included in the new program.

Part II. UDELAR activities: Selected experiences

Chapter 2. The selection of PANES beneficiaries

Verónica Amarante
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When MIDES requested technical assistance from UdelaR, the program's target group had already been defined (see Chapter 1). The task was therefore to develop a methodology to select the most deprived households in the country. The main characteristics of the selection mechanism developed by the Institute of Economics follow.

One of the main challenges that countries in the region have faced in the implementation of cash transfer programs has been the establishment of clear ground rules. While there was already sufficient regional experience on this issue, no background information existed at the national level. This was a known challenge when PANES was being designed.

Recent economic literature and regional and international experiences both suggest that determining the beneficiaries to be targeted by a cash transfer program requires a multidimensional analysis that accounts for multiple factors affecting economic wellbeing. This is due to the inherent problems of underreporting income, in addition to acknowledging that poverty is a multidimensional phenomenon that involves factors other than low income.

The proxy means text is often used in Latin America, although many countries subsequently use geographic targeting criteria to select households, and in some cases only income is used. For example, *Bolsa Família* in Brazil only uses income, while *Progresa/Oportunidades* in Mexico uses mixed criteria including geographic location, the proxy means test, the level of income and community characteristics, but income is the most common criteria used. *Chile Solidario* selects beneficiaries based on a recently modified multidimensional index that includes housing, education, work and income. In the case of PANES, a proxy means test was used.[5]

[5] The proxy means test can be implemented through discriminate analysis or through a probit estimation model, as was used in the case of PANES. One available study (Skoufias, Davis and Behrman, 1999) suggests that there is no substantial difference between the classification obtained through discriminate analysis and that of probit models for the case of *Progresa*.

The use of assigned points to select beneficiaries has many critics because it ignores qualitative aspects of poverty. Nonetheless, the main strength of this approach is that it minimizes any arbitrariness when assigning benefits, and makes it possible to use objective criteria and standards when analyzing information across a very broad population. Meanwhile, it also facilitates impact evaluations. For these reasons, MIDES was recommended to adopt a method of selecting beneficiaries with these characteristics. As is well known, this is important because many regional programs have been accused of political patronage because they do not have clear inclusion rules.

The Institute of Economics designed the tool used to select the program's beneficiary households. A tool was needed to distinguish the program's target population from among the candidates. To accomplish this, a Critical Needs Index (ICC in Spanish) was designed; it considers the various non-monetary characteristics of households to estimate household income using variables that are difficult for candidates to manipulate. This index is able to discern between households that belong to the target population and other candidate households. In practice, an index was estimated to separate the first quintile of poor households from all other poor households under the assumptions that there would be a self-selection process whereby the set of all candidate households would resemble the group of poor households.

The selection of variables included in the ICC, as well as the specific details of the formula used for the index, was based on the analysis of the information obtained from the 2003 and 2004 National Household Survey (ECH in Spanish), for urban areas with populations equal to or greater than 5,000 inhabitants and the 1999 Household Expenditure and Income Survey for rural areas (EGIH in Spanish). These surveys were used because they were the most up-to-date sources of socio-economic information on households when PANES began. As indicated above, the most recent census with relevant information on personal, household and housing characteristics was conducted in 1996.

The estimation model is a linear combination of household characteristics whose normal transformation can lead to an estimated probability of belonging to the target group.[6]

[6] A probit model was estimated on the basis of the following equation:

$$P_i = Z(\sum_k w_k x_{ik})$$

Where: x represents the variables used and the sub-index k distinguishes between these variables, the sub-index i refers to the households, and w_k represents the values obtained for each variable k. The variable P_i is a binary variable that is equal to one when households belong to the first quintile of poor households and zero when,

In the first phase, the estimate of these parameters was conducted for each region that the National Institute of Statistics (INE) had defined as a stratum of the household survey.[7] Furthermore, a structure of the parameters was estimated for all the rural areas. Applying the weights obtained in this first phase to the preliminary socioeconomic data collected on PANES candidates indicated that the absolute values of the estimated coefficients for some of the variables in the first phase were high. Experts from MIDES, BPS and the Institute of Economics who were working together detected that household exclusion problems were being generated: in these cases, households were extremely disadvantaged across most of the considered dimensions, but were relatively less disadvantaged in one of the dimensions. It was also observed that a group of variables did not provide additional information on households' socio-economic conditions. This analysis led them to modify the ICC in two ways. First, it was decided to differentiate between three regions in the country (Montevideo, Urban Interior and rural areas). Second, the number of variables considered was reduced, making it possible to construct a less costly version of the ICC.

The resulting statistically significant variables used to predict the probability of being in the first quintile of poor households compared to being a poor household which did not belong to this quintile were:

1. Public: binary variable that indicates the presence of at least one public servant in the household
2. Pensionerc: binary variable that indicates the presence of at least one retired person receiving an contributory pension in the household
3. Pensionernc: binary variable that indicates the presence of at least one pensioner (receiving non contributory pension) in the household
4. Healthh: binary variable that indicates whether at least one household member is covered by a private health institution
5. Members: logarithm of the number of household members
6. Child05: binary variable that indicates the presence of children from 0-5 years of age in the household
7. Members1217: binary variable that indicates the presence of adolescents of 12-17 years of age in the household

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although still poor, they do not belong to the first quintile of poor households. The model was estimated for a subsample of households with per capita income below the poverty line used by the INE (2002). Z refers to the Gaussian function. The statistical significance of the model was contrasted by a chi-square goodness-of-fit test of the ability to predict the model and the pseudo R2 (logit) value.

[7] Montevideo (strata 1 through 4), Northern Interior (Artigas, Salto, Rivera), Central North Interior (Paysandú, Río Negro, Tacuarembó, Durazno, Treinta y Tres, Cerro Largo), Central South Interior (Soriano, Florida, Flores, Lavalleja, Rocha) and Southern Interior (Colonia, San José, Canelones, Maldonado).

8. Wealth: variable constructed through factor analysis that approximates household wealth. Annex 1 details the calculation of this index.
9. Educational climate: average years of education attained by adults in the household, expect in cases where there were no adults (18 years of age or greater) in the household
10. Crowding: binary variable that indicates whether the household was overcrowded (more than two persons sleeping in each room)
11. Sewage1: binary variable that indicates whether the household has access to a sewage system
12. Sewage2: binary variable that indicates whether the household has access to a sewage system connected to the general grid
13. Sewage3: binary variable that indicates whether the household has a sewage system based on a septic tank or similar
14. Sewage4: binary variable that indicates whether the household has another type of sewage removal system. This variable is only considered for Montevideo
15. Sewage1r: binary variable that indicates whether the household does not have access to a sewage system. This variable is only used for the Urban Interior
16. Sewage2r: binary variable that indicates whether the household has access to a sewage system that includes a septic tank or similar system, or to the general grid. This variable is only used for the Urban Interior
17. Sewage3r: binary variable that indicates whether the household has another type of sewage evacuation. This variable is used only for the Urban Interior
18. Owner: binary variable that indicates whether the household owns the dwelling. This variable is only used for Montevideo
19. Renter: binary variable that indicates whether the household rents the dwelling. This variable is used only for Montevideo
20. Occupant: binary variable that indicates whether the household informally occupies the dwelling. This variable is used only for Montevideo
21. Year: binary variable that distinguishes between the 2003 and 2004 observations.
22. Constant.

In the case of binary variables, the reported coefficients refer to the omitted value (numbers 12, 16 and 18 in the previous list). The following are the values of the parameters w estimated for each of the k variables (k=1, …, 22) included in the model.

Table 1. Estimates for the Critical Needs Index in urban areas		
Variable	Montevideo	Urban Interior
1. Public	-1.206	-1.645
2. Pensionerc	-0.758	-0.580
3. Pensionernc	-0.321	-0.521
4. Healthh	-0.902	-1.098
5. Members	1.182	0.625
6. Child05	0.274	0.109
7. Child1217	0.102	0.076
8. Wealth	-0.436	-0.237
9. Educational climate	-0.068	-0.038
10. Crowding	0.137	0.133
11. Sewage1	0.232	
13. Sewage3	0.091	
14. Sewage4	0.220	
15.Sewager1		0.175
17.Sewager3		0.459
19. Renter	0.457	
20. Occupant	0.312	
22. Constant	-2.828	-2.135
Number of observations	16.357	16231
Pseudo-R2	0.3610	0.2059

Although only two sets of coefficients were calculated for the urban areas (Montevideo and Urban Interior), different thresholds were used for each region of the country, allowing these limits to capture the differing incidences of extreme poverty across the country. Several limits were then estimated by region according to the size of the target population the program could assist (table 2).

Table 2. Thresholds selected by region and target population

Region	PANES's target population (number of households)		
	60,000	50,000	40,000
Montevideo	0.191	0.235	0.297
North (Artigas, Salto, Rivera)	0.085	0.113	0.143
Central North (Paysandú, Río Negro, Tacuarembó, Durazno, Treinta y Tres, Cerro Largo)	0.055	0.074	0.097
Central South (Soriano, Florida, Flores, Lavalleja, Rocha)	0.067	0.085	0.111
South (Colonia, San José, Canelones, Maldonado)	0.098	0.119	0.149

As previously indicated, a set of parameters were also calculated for rural areas on the basis of the Household Expenditure and Income Survey (EHR in Spanish). At the time, it was the most up-to-date source of information on the area. These parameters were not ultimately used because the candidates were classified by the location of the office they registered at, and these offices were mostly in urban areas; i.e., actual household addresses were not used. Further information on these parameters can be found in Amarante et al (2005).

Once the targeting tool was designed, it had to be applied to the information collected on the program candidates. For this purpose, the Institute of Economics designed a survey that collected the information needed to calculate the ICC and other aspects that MIDES wanted to address, such as: access to other public programs, adult and child labor, and fertility (see Digital Annex).

Use of the selection criteria allowed participation of female-headed households to reach 40%. Similarly, the program primarily targeted households led by young individuals (who constituted 80% of households in the program). The higher share of households led by young individuals is associated with the fact that these households had the lowest incomes, especially in the presence of children. Approximately 90% of beneficiary households had children under the age of 18, while only 10% of these households had elderly adults. This is the result of a strong association between household age structures and poverty as registered in countless previous studies (see, for example, Filgueira and Kaztman, 1999; UNDP, 2005). Most beneficiary households were headed by the two parents (50%), followed by similar shares of households with a single-parent and children.

It is worth considering the extent to which the tool we designed was actually able to reach the intended beneficiary population. It is clear that the success or failure of a program's targeting criteria does not just depend on the tool used; more generally, the effectiveness of a targeting criterion results from institutional factors which range broadly from the capacity to implement far-reaching efforts to the prevention of corruption. In a broad systematization of targeting methods, Coady et al (2004) analyzed data from 122 programs throughout the world and found four general targeting criteria: geographic criteria, the proxy means test, income and self-selection. In their analysis, they found that self-selection criteria produced the worst results, followed by the geographic ones. Nonetheless, they pointed out that it was not clear which method was better, given that the results varied substantially. This was mainly because the results according to each targeting criteria were heavily influenced by the institution's implementation capacity.

It is also important to highlight that the use of statistical methodologies to perform the research necessarily implies some degree or percentage of selection error when using indicators such as the ICC. A first estimate of the plan's targeting criteria consisted of determining the extent to which the target population was actually included in the plan and the degree to which the plan's beneficiaries met the established eligibility criteria. These two aspects, usually considered in targeting studies, are referred to as horizontal and vertical efficiencies (Atkinson, 1995; Cornia and Stewart, 1995). Horizontal efficiency measures the relationship between the number of beneficiaries belonging to the target population and the total number of people in the target population. Vertical efficiency refers to the percentage of beneficiaries that belong to the target population.[8]

The following is a brief analysis of the plan's horizontal and vertical efficiencies based on the households that simultaneously met the income and ICC restrictions, using data from the 2006 household survey.

It should be noted that the analysis that we carry out carries certain methodological limitations. On the one hand, reported household income in the 2006 survey could differ from actual household income at the time they applied for the benefit. Similar considerations should be mentioned for the ICC: information reported in relation to the index's household living

[8] Horizontal efficiency is thus an indication of the coverage of the target population, while vertical efficiency is an indication of the extent to which the intervention ends up directly benefiting ineligible households.

conditions variables could have changed between the time when the household applied and the time of the survey. This is especially relevant for beneficiary households as they may have already received cash transfers for several months and the index would indicate a different quality of life than reported at the time of their meeting with the PANES interviewer.[9]

In the case of PANES households, however, it was implicitly assumed that non-beneficiaries would not change their behavior; their income would therefore remain the same as if they did not have the "citizen income" cash transfer. In particular, this implies an assumption that they would not change their labor market behavior. Despite these difficulties, the exercise still illustrates how targeting was carried out under the program. If we consider the population that met both of the legal requirements (income and critical needs), PANES reached half of the target population (50.8%). Regarding vertical efficiency, 57.3% of the PANES beneficiary population met both requirements. It is also worth considering horizontal efficiency among households requesting the benefit (rather than all potentially eligible households).[10] When limiting the analysis to households that requested the benefit, the resulting efficiency indicators were considerably higher, as shown by a horizontal efficiency which reached 63%.

If the distribution of candidate households and PANES beneficiaries is analyzed by income quintile, information available from the 2006 household survey (including rural areas) would indicate that approximately 78% of the PANES beneficiaries were in the lowest quintile of incomes. This figure is highest in Montevideo, at 81%, and is lowest in rural areas, at 74% (see table 3). Comparing this with the distribution of applicant households indicates that, although candidates were self-selected, the targeting tool worked sufficiently well.

[9] It could also capture some underreported income given that households know the eligibility criteria of the plan.

[10] Vertical efficiency is similar, whether looking at all households or just the households that requested assistance through PANES, because the denominator is always the beneficiary households.

Table 3. Distribution of PANES applicants (beneficiaries and non beneficiaries) by per capita income quintile (excluding "*Ingreso ciudadano*"), 2006

Quintile	Total country		Montevideo		Interior (≥ 5,000 people)		Interior (< 5,000 people)		Rural	
	NB	B	NB	B	NB	B	NB	B	NB	B
1	56.1	78.3	56.9	81.0	56.2	77.5	55.2	77.4	51.9	74.0
2	28.7	17.4	26.3	15.1	29.3	18.3	30.8	18.3	31.4	18.6
3	11.1	3.2	12.1	3.0	10.6	3.1	10.7	3.5	11.8	5.6
4	3.4	0.9	4.1	0.9	3.1	0.9	2.7	0.7	4.0	1.5
5	0.7	0.2	0.6	0.0	0.7	0.3	0.6	0.0	0.9	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: based on *Encuestas Continas de Hogares*
NB = non-beneficiary, NB = beneficiary

In summary, the design and implementation of PANES was an important challenge from which the researchers involved drew several lessons. Although they had previously conducted numerous studies in the field of poverty, it was the first time that they were responsible for designing a mechanism with concrete consequences on the lives of many people. For this reason, the short amount of time to prepare for program implementation implied an intense period of work with long term or permanent interactions with MIDES, the BPS (in charge of calculating the values of the eligibility scores), SECIU (assembly of the database) and the University's Sociology Department (collection of information in the initial stages).

The differences between the data of the household survey and that from program applications led to the revision of the initial scores in September 2005. Certain variables, such as having a pensioner in the household, weighed strongly on the probability of selection, and were not initially revised to balance the formula in consideration of other household characteristics.

It is worth noting that this was the first large-scale experience in targeting the beneficiaries of social policy through widespread coverage by using a statistical instrument. Therefore, significant improvements were achieved in terms of the conceptual and practical aspects of these tools. These advances were very useful in the design and implementation of subsequent programs, and thus facilitated the launching of the Equality Plan, most specifically in terms of the treatment of baseline data and selection criteria.

Chapter 3. Effects and impacts of PANES

Verónica Amarante
Andrea Vigorito

In this chapter we summarize the research carried out by UdelaR, in the context of a cooperation agreement with MIDES, on various effects of PANES. This analysis addresses the role of PANES in the expansion of the social protection system, and focuses on the observed changes in the coverage of the vulnerable population as well the role of the cash transfers in the reduction of poverty, extreme poverty and inequality (3.1). It also covers the impact evaluation of the program, carried out using a quasi-experimental design (3.2).

The analysis of the effects of PANES on poverty, extreme poverty and inequality began with a document prepared for MIDES by the Instituto de Economia entitled *Perfil socioeconómico de la población incluida en el PANES* (A socio-economic profile of the PANES population). In this document, the main characteristics of the PANES population were compared to other deprived and non deprived population groups. This static exercise assumes that the program did not cause beneficiaries to change their behavior, and aims to illustrate the direct effects of PANES on household well-being.

The PANES impact evaluation was an enormous task and it would not have been possible to carry out without the involvement of numerous people and institutions throughout its different stages. Prior to the program, Uruguay had little experience in evaluating social plans. This evaluation was a joint effort on the part of several departments within the Universidad de la República and the MIDES Monitoring and Evaluation Unit. In the following, we concentrate on the results of the quantitative evaluation because this is the area where the University was most involved.[11]

3.1 PANES effects on poverty, extreme poverty and inequality

Although Uruguay had developed an inclusive social security system by the mid-20th century, income transfers were largely based on a contributory approach (table 4) until 2004. The

[11] MIDES carried out several qualitative evaluations of the program (www.mides.gub.uy).

inception of PANES involved important changes in terms of the expansion of the social protection network, as we review in what follows.

Prior to the beginning of PANES, scarce program dollars targeted the most deprived population, mainly on the basis of self-declared income. The only available source of information on these households' socio-economic characteristics was from the *Encuestas Continuas de Hogares* surveys, carried out by Instituto Nacional de Estadística.

This lack of information meant that PANES also involved a major effort on how to build an information system on social policy beneficiaries, how to generate enormous databases, their interconnections with other existing official records and the importance of periodically updating the information on vulnerable households, given the substantial changes these households experience over short periods of time. These information systems were built on the bases of solid support from the BPS, an institution that had developed huge databases on the employment histories of contributory workers and benefits and that had recruited a large number of highly qualified personnel in the field of information technologies.

Table 4. Cash transfers as percentage of GDP, 1991-2007 (selected years)

	1991	1995	1998	2002	2004	2005	2006	2007
Contributory pensions	8.8	11.0	11.1	11.7	10.1	9.1	9.2	8.8
Noncontributory pensions	0.48	0.51	0.53	0.56	0.43	0.38		
Unemployment benefits	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2
Child allowances	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Ingreso Cidudadano					---	0.1	0.4	0.3
Total	9.9	12.1	12.1	9.9	10.0	10.2	10.0	9.6

Source: UNDP (2008)

A second aspect to be considered is that PANES significantly expanded the reach of the transfer system among the lower income strata (Arim et al, 2006). In fact, the share of households in the lowest income quintile not covered by income transfers fell from 50% in 2001 to 20% in 2006. This expansion considerably facilitated the future transition from PANES to the Plan de Equidad.

The third aspect to be considered is the contribution of PANES to reduced inequality and poverty. Ingreso Ciudadano played an important role in reducing extreme poverty (40%) and the

poverty gap.[12] PANES only had a small contribution towards poverty reduction (1.7%), however, because its target population was too far below the poverty line for the transfer to bring them over the threshold.

In 2006, *Ingreso Ciudadano* represented 12% of total income in the first decile. This high proportion is unsurprising given that the program targeted the lowest income strata and the size of the transfer itself, which was fairly large given the depressed level of income that still characterizes these households. Our estimates show that PANES contributed to a 0.09% decline in inequality, a relatively limited effect when alternatively viewed as a 0.004 decline in the Gini index.

An additional aspect to be considered is the potential of PANES to identify beneficiaries who may overcome poverty and extreme poverty through their own labor effort. A simulation exercise looks at poverty in terms of a household's potential income, and estimates what has been labeled as the ability to be self-reliant.[13] The results show that, even if all adults in PANES households were engaged in full-time work, 77% would still fall under the poverty line. The population groups with a higher probability of remaining poor were households with children aged 0 to 18 and female-headed households. Thus, 83% of PANES participants would remain in poverty, indicating that finding a job is often not enough for these adults to exit poverty, given their individual characteristics and the structure of wages in 2006.

One of the main findings of this simulation is that individual autonomy needs to be improved by building a combination of policies that form a social policy matrix that improves the endowments of households in order to increase their abilities to earn income. In this sense, improving basic capabilities is not a requirement for the sustainability of social policy but is rather a goal unto itself.

3.2 The PANES impact evaluation

UdelaR participated in this initiative through the Instituto de Economía, that outlined and carried out the impact evaluation of PANES in collaboration with: Marco Manacorda and Edward Miguel, whose institutional affiliations are presented below; the Departamento de Sociología,

[12] This was a static estimation, which involves assuming that households did not change their attitude towards the labor market when receiving a cash transfer such as through PANES.

[13] This exercise is based on the methodology developed by Haverman and Bershadker (2001).

that carried out the survey field work and prepared reports on the PANES population; and the Instituto de Estadística that was in charge of the sample and panel design. These institutions are currently carrying out the impact evaluation of *Asignaciones Familiares*, part of the Plan de Equidad.

The objectives of PANES were multifaceted. Hence, the impact evaluation exercise involved significant efforts in relation to both data generation and the use of existing information. A workshop was held before the evaluation started, and brought together representatives of various government departments, in order to coordinate the use of all existing relevant information in the official records of these departments. This made it possible to merge the official records of PANES applicants with: a follow-up survey that was specifically prepared for the evaluation, the social security records of earnings and benefits generated by the BPS, birth records gathered by the Ministerio de Salud Pública (MSP), information on perinatal outcomes (Sistema de Información Perinatal, or SIP) generated by the Centro Latinoamericano de Perinatología and the official secondary school enrollment records (SECLI) from the Ministerio de Educación y Cultura.

As was mentioned above, two researchers, Marco Manacorda (Queen Mary and London School of Economics, London University) and Edward Miguel (University of California at Berkeley), were invited by the Instituto de Economía to collaborate in the design and implementation of the PANES impact evaluation.

This work began with the aforementioned technical assistance agreement signed between MIDES and UdelaR, and was continued through various research projects submitted in response to calls for proposals by the Poverty and Economic Policy Network and the Inter American Development Bank. These research projects allowed the research team to carry out in-depth work on the effects of PANES on schooling, labor participation, informality and outcomes at birth (birth weight). In this chapter, we summarized the main results of the Impact Evaluation Reports that were submitted to PANES and the final reports of the projects mentioned above (Amarante et al, 2008; Amarante et al, 2009; Amarante, 2010; Manacorda et al, 2009; Amarante, 2011(a); and Amarante, 2011(b)).

The outcomes considered in the evaluation

The impact evaluation analysis was based on both the objectives set by MIDES and on a literature review of the effects of similar programs. The objectives of PANES were very ambitious, particularly given that it was a temporary intervention: they ranged from short run income support to knowledge of rights as well as increases in social participation and individual autonomy.

The theoretical and empirical literature on income and food transfers has extensively discussed the potential (desired and undesired) effects of this kind of intervention. These cover a wide range of factors, such as: consumption and household investment; intrahousehold resource allocation; income and labor force participation of household members; schooling of children and adolescents; health and fertility; empowerment; and interpersonal trust and bonds. These effects depend on the size of the transfer, the duration of participation in the program, the institutional mechanisms used to implement the program and, in some cases, on how conditionalities or corresponsabilities are set. Due to budget constraints, the PANES impact evaluation did not generate data on consumption and investment, so unfortunately this aspect was not studied.

The expected effects related to the remaining factors will now be briefly summarized.

- *Changes in household income and labor force participation among its members.* The transfer produces a change in household income that may ultimately differ from the size of the stipend due to the potential changes in adult and child labor force participation. I.e., the transfer may generate income and substitution effects. The income effect suggests that the beneficiaries may work less in response to additional resources, while the substitution effect implies that beneficiaries may work less due to the BPS income threshold. For the case of the United States, Moffit (2002) finds ambiguous results with respect to labor market participation. Tabor (2002) considers that transfers in developing countries are too small to affect adult labor market participation, given that households remain well below the poverty line even after receiving the transfer. Then again, the use of an income threshold, as is the case with PANES, may generate incentives to increase informality as individuals will try to avoid being removed from the program (Gasparini, 2006).

- *Increases in child and teenage schooling*. When conditionalities are effectively monitored, or if beneficiaries believe they are monitored, they can generate changes in household behavior, reflecting a change in their preferences (see Fizbein and Schady, 2009). At the same time, the income effect may generate an increase in enrollment. Ravallion and Wodon (1999) observe that an increase in schooling associated with a program in Sri Lanka does not necessary reduce child labor and may simply lead to a reduction in leisure time due to the combination of schooling and work.
- *Health and fertility*. The income effect and the complementary interventions on education and health may affect the nutrition and morbidity of beneficiaries as well as the reproductive patterns of women. If the transfer increases in direct proportion to the number of children, it could generate incentives to have more children (causing increased fertility). This is not the case for PANES, however, where the money was transferred as a lump sum independently of household size, while the size of the food card transfer varied somewhat.
- *Changes in intrahousehold resource allocations, empowerment and autonomy among beneficiaries*. Women who receive the transfer are the main subject of study in this regard. The underlying assumption is that giving the transfer to a given household member may alter their relative bargaining power within the household. Transfers paid to women may increase their bargaining power within the household. Molyneux (2006) nevertheless argues that treating women as the main agents who ensure efficient distribution of resources within households may effectively increase their work burden, particularly when participation in certain activities is required to satisfy conditionalities in order to receive the transfer.
- *Ties and trust*. The impact of transfers on this kind of results has been less studied. Based on experimental games in different Latin American countries, Attanasio et al (2008) and Chong et al (2009) reach opposing conclusions with respect to social capital accumulation. Whereas the former finds evidence of increasing cooperation and social engagement in the case of the Colombian Familias en Acción, Chong et al (2009) observe that stigma generated a decrease in trust.

Based on the previous considerations and the interest in generating data on changes in attitudes and opinions, the PANES impact evaluation considered a broad set of outcomes (table 5).

Table 5. Dimensions and variables considered in the PANES impact evaluation	
Dimension	Variable
Schooling (6-17)	Attendance in the education system
Health status, fertility and prenatal care	Self-declared health status Health checks Odontological checks Vaccinations Birth weight Prenatal care Weeks of gestation Fertility
Income	Per capita household income Per capita labor earnings Per capita transfer income Hourly and monthly labor earnings – adults
Labor market participation – adults	Participation / Employment / Unemployment / Informality / Number of working hours
Child and teenage labor	% of children at work % of teenagers at work
Housing condition and access to durable goods	Crowding Housing conditions (floors, ceiling, walls) Access to durable goods Housing repairs
Knowledge of rights	Composite index on knowledge of civil rights Composite index on knowledge of labor rights Composite index on knowledge of criminal law
Social participation	Composite index on social participation % of household members that participated in social activities over a certain period of time
Opinions on the country and on PANES	Future situation of the household Present situation of the country Future situation of the country This government vs. the previous one PANES targeting Characteristics of the transfer
Intra household decision making on	Food expenditures Child garment expenditures Important housing expenditures Partner labor market participations Child work

Evaluation strategy

In order to identify program effects, the prevailing strategy was a regression discontinuity design. This methodology was chosen due to the fact that program participation is the cause of a jump or discontinuity in the ICC threshold (see Chapter 1).

The score makes it possible to sort program applicants on the basis of their degree of deprivation. This design means that, if the program is well targeted, it is difficult to identify a control group with the same characteristics as the treated one. Moreover, the official program records did not include information on a number of variables that were essentially important program objectives, so there was no baseline data to compare to the results obtained in the follow-up surveys.

The discontinuous design identification strategy compares very similar households that are located just below the eligibility threshold (the control group) and just above the threshold (the treatment group). Use of this strategy is only viable when the dataset has a considerable mass of observations on both sides of the threshold.

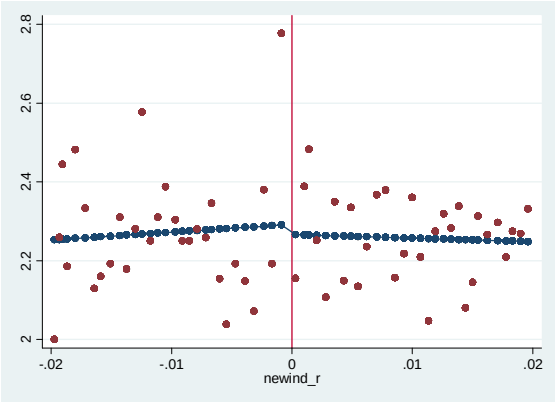
In order for this to be a valid identification strategy, the outcome variables must not reveal any discontinuity in the absence of the treatment. The main disadvantage of this method is that the observed effects are local. This local nature of the observed effects means that they are valid for the subsample of program participants located near the threshold, but do not necessarily hold across the entire treatment group.

Graph 2 illustrates the logic of this identification strategy. Suppose that we are trying to measure program effects on a certain outcome variable which is drawn on the y-axis, such as school attendance. We then plot the scores that determine program eligibility on the x-axis. In this example, households with a score above 0 are labeled as poor and are therefore program beneficiaries. In the absence of the program (panel A), we expect a monotonic and decreasing relationship between the scores and the outcome variable: in this example, households with scores on the lower side of the threshold will have a higher enrolment rate before the program starts. If increasing school enrolment is a program objective which is actually accomplished, then attendance among treated individuals may increase and a discontinuity will be observed.

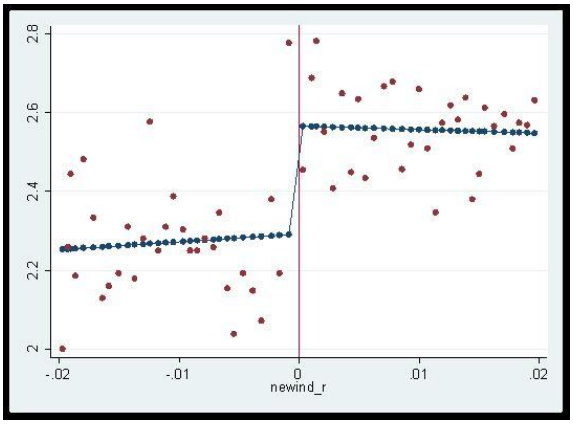
In graph 2, the points to the left of the eligibility threshold (treated individuals) moved upwards (panel B), whereas no changes are observed in the control group (situated to the right of the threshold). If the intervention has the expected impact, it induces an increase in school attendance. The logic of the regression discontinuity (RD) is to identify this jump in the outcome variable in the vicinity of the threshold.

Graph 2. Identification of program effects using regression discontinuity

Pre-treatment



Post-treatment



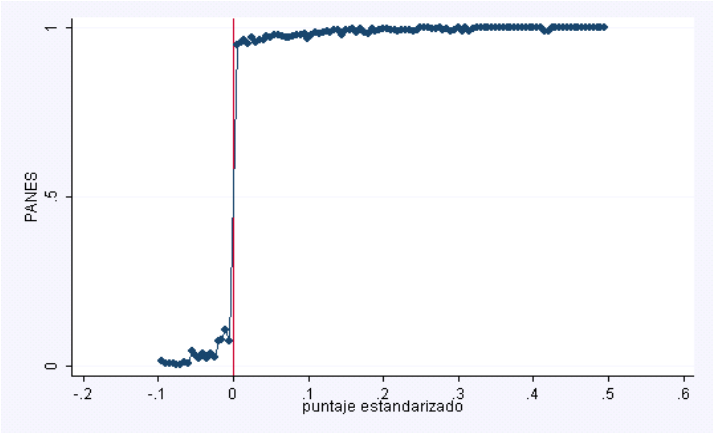
The jump can be identified using graphical and econometric methods. To illustrate the econometric estimations used in the evaluation, let S_i be the predicted score of household i (a higher score means higher deprivation) and let E be the eligibility threshold, so that only households above E are eligible. As there were separate thresholds by region, $N_i=S_i-E$ is the normalized score for each region. Following Lee and Card (2008), the empirical strategy relies on a regression estimation where the dependent variable is the outcome of interest for household i, y_i, and the independent variables are the constant, the household's eligibility for the program, $1(N_i<0)$, two parametric polynomials, respectively on the score ($f(N_i)$ and its quadratic expression $g(N_i)$, and control covariates (X):

(1) $$y_i=\beta_0 + \beta_1\, 1(N_i>0) + f(N_i) + 1(N_i>0)\, g(N_i) + X'\gamma + u_i$$

The coefficient of the variable that discerns between the treatment and control groups, β_1, represents the average impact of the program in the vicinity of the threshold. As stated above, the identification assumption is based on the fact that outcome variables are a monotonic function of the score in the baseline situation, so the discontinuity that appears at the threshold is interpreted as the program effect.

Validation of this strategy depends on the extent to which program participation was based on the index score. The analysis of official PANES records shows that the mathematical rule used to divide participants from non-participants was respected, as program participation presents a clear discontinuity at the threshold (graph 3).

Graph 3. PANES eligibility and participation



The information used in the PANES impact evaluation originates from: official records of program applicants; the two follow-up surveys carried out by the Department of Sociology at the Faculty of Social Sciences; official social security records from the BPS; birth certificates collected by the Ministry of Public Health; perinatal data from the Perinatal Information System; and the official records of the National Administration of Public Education.

The fieldwork for the first follow-up survey was carried out from December 2006 to March 2007, and the second wave was collected between February and April, 2008, soon after PANES finished.

As mentioned above, the two follow-up surveys were carried out on the basis of a sample created by researchers from the Institute of Statistics at the Faculty of Economic Sciences. Methodological details on the sample can be found in Goyeneche et al (2007). In order to carry out the regression discontinuity (RD) estimations, the sample was drawn from the [-0.02; 0.02] interval near the eligibility threshold that was normalized using regional cut-off points, in order to have a control group that is as similar as possible to the treatment group. 1,000 observations were chosen in the [-0.02; 0.00) interval, 2,000 sit in [0.00; 0.02] and 500 were chosen to represent the rest of PANES households.

The survey instruments for the two follow-up surveys were discussed and prepared by the research groups involved and also by the personnel of the MIDES evaluation and monitoring unit (see Digital Annex). In order to operationalize the main objectives of PANES in the survey questions, the questionnaire included a socio-economic section, a list of household members and

their socio-economic characteristics and a final section asking PANES beneficiaries or applicants for their opinions. The first section included information on housing, geographic mobility and access to durable goods. Individual characteristics include specific questions on education, health, labor force participation and work, child labor and income. These sections tried to maintain the wording of similar questions included in the official records for the sake of comparability. The final block of questions dealt with the intrahousehold division of work, knowledge of rights, social participation and voice actions, and opinions on PANES and on varied topics. These final questions are new ones that were not included in the application survey, and attempt to capture effects on a broad set of objectives related to increasing awareness of rights and autonomy among beneficiaries.

The questionnaires from two follow-up surveys are similar, but do differ somewhat. The second survey included additional questions on housing conditions, and some others included questions that more directly covered renovations carried out during the last year, construction of new rooms and access to public programs on housing. In the health module, specific questions were added for women, such as on gynecological and breast cancer checks. In the opinions module, new questions on the role of the state, the perception of social differences, future social mobility and the feasibility of achieving economic success through effort were included. The fact that the second follow-up survey was carried out a few months after PANES ended made it possible to capture retrospective opinions and awareness of the recently launched Plan de Equidad. Finally, the section on trust in varied institutions and political opinions was expanded.

In order to identify the interviewee within the household, who was the successful or unsuccessful PANES applicant, the interviewers had his or her name and identity card number. When introducing themselves, interviewers informed them that they were carrying out fieldwork for a survey prepared by the Universidad de la República on social policies, without any reference to MIDES or PANES. Of the 3,500 households that were originally planned to be in the first wave, 3,325 (95%) were interviewed. In turn, 32% of the original cases were substituted by households showing a similar score as interviewers were not able to find them (table 6).

Table 6. Households in the original sample replaced in the first wave			
	Control group	Treatment group	Remaining PANES beneficiaries
Original households	633	1284	329
Replaced households	339	546	194
Total	972	1830	523
Source: Goyeneche et al (2007)			

Goyeneche et al (2007) report that substitutions respected the group of origin in each case (control, treatment or remaining PANES beneficiaries). They also analyze the substitutions by sampling strata, and find that higher replacement rates occurred in big cities and in the group of PANES beneficiaries that did not belong to the treatment group (remaining PANES beneficiaries). Based on this analysis, they conclude that the relatively high substitution rates did not introduce significant biases in the final database.

It should be pointed out that the PANES population was primarily located in urban areas outside Montevideo: 84% of the sample is located outside this metropolitan area. It is also worth noting that the bulk of successful and unsuccessful applicants are women (respectively, 76% and 78%). In the second follow-up survey, 93% of the households interviewed in the first round were found and revisited (table 7).

Table 7. Cases by round of the follow-up survey and sample group				
Unit of analysis	Treatment	Control	Remaining PANES beneficiaries	Total
Households				
- first wave	1821	960	522	**3303**
- second wave	1700	888	487	**3075**
% households retrieved in second wave	93.4	92.5	93.3	93.1
Individuals				
- 1st wave	6,481	3,051	2,415	**11,947**
- 2nd waves	5,595	2,587	2,062	**10,244**
- individuals in second wave	6,138	2,897	2,272	**11,307**

Main results

Table 8 summarizes the main results of the quantitative PANES impact evaluation.

In terms of school attendance, the analysis of the two follow-up surveys shows that PANES had no impact on beneficiaries. The poor results with respect to education are due to a number of factors. First, as attendance is almost universal in primary school, results were not expected at this level. Dropout rates remained around 25% for secondary school: this lack of results may be

due to the size of the benefit relative to household income, the relevance of the non-income determinants of attendance, the fact that the transfer was a lump sum regardless of the number of household members, and to the lack of control of conditionalities, publicly acknowledged by MIDES after the program ended. No results were found regarding child and teenage labor.

Table 8. PANES effects on different dimensions of wellbeing and opinions by data source used to assess impact

Dimension	First wave	Second wave	Official BPS records	Official MSP records
Education and health				
Schooling (pre-primary, primary, secondary)	No effect	No effect		
Vaccinations	No effect	Not in this wave		
Health checks: adults	No effect	Not in this wave		
Health checks: teenagers	No effect	Not in this wave		
Health checks: children 0-4	+	Not in this wave		
Odontological checks: men	No effect	Not in this wave		
Odontological checks: women	+	Not in this wave		
Weight at birth				+
Low birth weight (<2500 g)				+
Weeks of gestation				No effect
Prenatal care				No effect
Income and work				
Household income	-	No effect	-	
Labor income: men				
Labor income: women			-	
Adult labor supply	No effect	No effect	-	
Child labor	No effect	No effect		
Formality	-	No effect	-	
Housing and durable goods				
Housing condition (wall, ceiling and floor materials)		No effect		
Housing repairs	Not in this wave	+		
Crowding	No effect	No effect		
Composite index of durable goods	No effect	No effect		
Social capital and empowerment				
Knowledge of rights	No effect	No effect		
Social participation	No effect	No effect		
Trust	Not in this wave	No effect		
Intrahousehold decision making	No effect	Not in this wave		
Opinions and attitudes				

Household and country situation	+	+
Government support	+	+
Trust in the President	Not in this wave	+
Trust in MIDES		
Trust in varied institutions	Not in this wave	+
Opinions on PANES	+	+
Future social mobility perception	Not in this wave	No effect
Opinions on gender issues	Not in this wave	No effect

The results with respect to health outcomes are notable. The analysis of the official birth records (MSP) and perinatal histories (SIP) shows a 10-20% reduction in the incidence of low birth weight (depending on the specification) due to the program and no effects on fertility. The reduction of low birth weight can probably be explained by factors relating to maternal nutrition. No results were found in terms of the duration of pregnancy (weeks of gestation) or prenatal checkups.

The first follow-up survey showed positive effects on health checks for children aged 0-4 and odontological checks for adult women. For the first of these, the probability of receiving a health checkup rose by 27% under program participation. Medical consultations were not found to affect child morbidity, indicating that there were no differences in health conditions among the control and treatment groups. Although these results indicate positive program results, it is difficult to know whether they be upheld after the end of the program.

The probability of an adult woman attending an odontological checkup increased by 6.5%, while no results are found in terms of other kind of consultations. This was found for women aged 18 and over, a result which could be related to the fact that many of these women were beneficiaries of *Trabajo por Uruguay*, a PANES component that included specific interventions in terms of odontological assistance. No effects were found for men or children.

PANES participation negatively affected household income in the first wave, reducing it by around 20 to 25%, but this result vanishes upon program completion. This finding is not consistent with those regarding labor participation, employment and working hours, which do not change, but may reflect an increase in informality, which explains the decrease in income.

In low prevalence outcomes such as fertility, birthweight and formal work, the follow-up survey lacked explanatory power and yielded imprecise estimates. Fortunately, we were able to use

other sources of information, such as birth outcomes. This issue is clear for some labor outcomes such as informality, where the follow-up survey yields imprecise estimates of effects, whereas PANES is found to have a negative effect on formality when merging the entire official PANES and BPS records (table 8). Amarante et al (2011) worked on this aspect in depth, showing that PANES recipients have a lower probability of contributing to social security and that it slightly reduces their monthly earnings, by 200 pesos for men and 50 pesos for women. However, BPS data was not able to specify the extent to which this effect on formal work resulted from a decrease in labor participation or increased informality. This outcome may be an unintended consequence of checking the household's income against a threshold on a bimonthly basis using social security records gathered by BPS. Gasparini et al (2007) found similar results for *Jefas y Jefes* in Argentina.

This finding may well be worth considering for the design of *Asignaciones Familiares-Plan de Equidad*, as this program can generate similar incentives. These incentives can be counteracted by not automatically removing households that surpass the income threshold, by being more flexible in the extent to which income is allowed to exceed the cutoff if the household was already participating in the program or the amount of time they may exceed the threshold before being struck from the rolls. The Brazilian *Bolsa Familia* is an interesting example in this sense: when households enter the program, they are entitled to the benefit for two years regardless of any changes in their income in that period.

Regarding housing conditions – we consider materials for flooring, roofing and walls – the analysis of the follow-up surveys does not find any impact. The second follow-up survey, however, indicates that PANES positively affected housing, including the construction of new rooms and repairs. Specifically, receiving PANES was associated with a 15% increase in the probability of carrying out repairs and a 10% increase in the probability of building new rooms. This increase in the number of rooms did reduce crowding, and no effects were found in terms of access to durable goods.

Since PANES explicitly attempted to increase social participation and awareness of rights among its beneficiaries, the two follow-up surveys included questions on these issues. In the case of rights, respondents were asked whether statements on civil and labor rights as well as on criminal law were true or false.

No differences in knowledge of rights were detected among the treatment and control groups. When we evaluate the effects of two specific PANES subcomponents, *Rutas de Salida* and *Trabajo por Uruguay*, which aim to strengthen awareness of rights, we find a strong program effect (30%). This finding is particularly strong in the case of labor rights, a result that may originate from the fact that individuals with more knowledge of rights were more likely to have participated in these programs.

No effects were found in terms of social participation, engagement in a varied set of organizations or receipt of documentation such as a ballot, passport and identity card.

Regarding intrahousehold decision making, the only effect that we find relates to housing expenditures, reflecting increased autonomy among PANES beneficiaries, who are most often women. Unfortunately, it was not possible to gather information on consumption so this issue was not analyzed in depth.

Regarding the country's present situation, although successful and unsuccessful PANES applicants have similar perceptions, the successful applicants clearly appear more optimistic about the future. When asked about the present situation of their household, PANES beneficiaries also have a more optimistic outlook, although these results are not robust across all model specifications. This difference vanishes when respondents were asked about their household's situation in the future. This lack of effect may have something to do with the temporary nature of the program.

The strongest effect in this section involves opinions about the government. PANES beneficiaries clearly offer a better evaluation of this government than in the previous evaluation, and their trust of the President and MIDES is also significantly higher. These effects may result from increased optimism among beneficiaries or dissatisfaction among unsuccessful applicants, precisely due to having been looked over for program participation. Manacorda et al (2011) use the two follow-up surveys to analyze these aspects in depth and find that support for the government is 10-13% higher among PANES beneficiaries than in the control group. Recall that PANES had ended three month before the second survey. A comparison of this survey and the Latinobarómetro, which has similar questions, rejects the assumption of increased dissatisfaction, as predictions yield the expected results for the control group.

Finally, the survey questionnaire included four questions on opinions of PANES. They asked respondents to agree or disagree with the following statements: a) some people receive PANES

and do not need it; b) the stipend should be lower so more people can obtain the benefit; c) the cash transfer should be lower and the food transfer higher; and d) some people need PANES and do receive it. No differences were found between statements a), b) and d). For statement c), the differences in answers between the treatment and control group were significant (19 versus 25%). This finding needs to be assessed in future research.

Final comments

PANES was the cornerstone of the transformation of the social protection system in Uruguay. Its implementation demonstrated important deficiencies in the existing information systems, made it possible to improve coordination among various institutions and significantly expanded the ability of the social protection system to reach the most deprived populations.

The program substantially contributed to reduced extreme poverty, although its effect on the poverty rate itself was limited because it most strongly targeted highly deprived households. According to micro simulations, four in five PANES beneficiary households were unable to exit poverty in 2006, even when all its adult members were employed in full-time work. This points to challenges for the design of future interventions.

When looking at the objectives and the outcomes of PANES, the interventions that reached the majority of PANES beneficiaries did not quite live up to the objectives. Most of these households received the cash transfer and the food card, but other complementary interventions reached around 20% or less. However, even in cases where these interventions reached all PANES beneficiaries, the extent to which long run objectives can be achieved through a temporary intervention can still be questioned.

This research constituted an important challenge for the researchers involved in the tasks presented in this chapter, and it allowed them to become familiar with huge databases and impact evaluation techniques that had hardly been used in Uruguay. It must also be acknowledged that involvement in PANES also involved a reorientation and redefinition of their research agenda.

Chapter 4. An updated source of public information: The Repertoire of Social Programs

Carmen Midaglia

The Repertoire of Social Programs was one of the projects included in the MIDES-UdelaR partnership. This initiative slowly began to see the light in August 2005 and was then fully carried out between 2006 and March 2010, when the first center-left coalition government's term ended, in March 2010. The Repertoire was part of a package of collaborative activities between the two institutions. The nature of the Repertoire and the importance it eventually gained meant that the project was not limited to the "urgency" of the first period, but that it became a medium to long term initiative.

The Repertoire consisted of building an information system relating to social benefits in Uruguay and aimed to enhance knowledge of the structure of the national protection and welfare system. Initially, only programs offered by the national government were to be included in the Repertoire. However, when local officials became aware of the initiative, they requested to also have social programs carried out in their jurisdictions included in the Repertoire.

The two public organizations had mutual interests in relation to this project; it is noteworthy, however, that as supportive as MIDES was throughout the entire period, its authorities never fully understood the Repertoire. This is not particularly surprising given that the Repertoire was not a direct social intervention and its usefulness would only become apparent after the information system had been implemented and tested.

The Repertoire aimed to do the following:

(i) Overcome the countless fragmentary diagnostic reports on the national social welfare system that were impossible to compare using a single and consistent methodology, thus contributing to the creation of a permanent and renewable flow of information for MIDES to accomplish its mandate as coordinator of public policies.

(ii) Use this database to rigorously analyze the situation, scope and evolution of the national social protection and welfare system.

The method used to gather the information from the different national ministries, decentralized services, autonomous agencies and local governments, was based on a self-administered form with closed-ended questions.

The most significant variables the questions addressed were: the objectives and government sector where the benefit operated; the type of benefits offered; when those benefits had been created; the beneficiary population by age, socio-economic condition and employment status; how the programs were implemented, i.e., by a single government agency or in coordination with other public and/or private agencies; the human and financial resources allocated; and the type of regulation and evaluation used in social interventions.

A set of personal interviews with those in charge of the programs was conducted to complete this form, not only to introduce the initiative, but to explain the scope of each of the data modules.

In all public institutions, both national and sub national, the unit of analysis was the "social program," empirically identified as the lowest scope of benefit that could be used to map the multiple forms of social provisions in the country in order to piece together all elements of the social protection system.

It is noteworthy that the decision to carry out the analysis at the program level was done after pre-testing the form. Assessing the results of the interviews, researchers noticed that if the collection of data was based on the classic conceptual definition of welfare services, looking towards programs with a universal orientation would result in the loss of more targeted social initiatives aimed at specific sectors of the population.

Early fieldwork showed that the Uruguayan welfare system had changed a lot and that different types of social policies effectively coexisted within a single public agency. Accordingly, the operational decision to focus on the program as the unit of analysis turned out to be correct, regardless of the difficulties it entailed. It enabled experts to identify and group together the various universal benefits and to compare them with more targeted benefits, particularly in terms of coverage.

Some of the difficulties of this methodological decision had to do with the fact that public information is not grouped and classified this way. The state collects and presents information on public policies and on human and financial resources through the executing agency for the policy, without accounting for the different types of interventions carried out by each agency. This approach to collecting information makes it difficult, and may even hinder, to understand or

evaluate prevailing staffing and contracting methods or the cost of each of the public services or policies.

The interviewed officials within each public agency found it difficult to consider the benefits provided by the agency at the level of programs. In all cases, the unit of analysis was identified through regular conversations with the agency's authorities.

In what turned out to be a naïve goal, surveys to evaluate benefits offered by central government agencies were to be completed over eight months. This work ended up taking twice this amount of time, for the following reasons (besides difficulties associated with taking the social program as the unit of analysis):

(i) The social benefits managed by central government agencies, autonomous agencies and decentralized services were more numerous than the public was aware of;

(ii) Each of the agencies had a unique organizational culture and work dynamics to which the research team had to accommodate;

(iii) Apart from the fact that the information was not available in the format required by the study and that systematization parameters varied significantly between agencies, obtaining the political and bureaucratic "authorizations" to access the databases took a fair amount of time; and

(iv) Finally, because it was the first time that such a broad amount of information had been collected in relation to the welfare system, and it was difficult to understand how useful the Repertoire would be as a management tool for the public institutions, which led to further delays.

These difficulties also arose at the local level, in some cases more so than others due to varying institutional capacity to organize information in a way that could be used to implement social programs. Some had troubles distinguishing between strictly local provisions and those initiatives that were implemented at a local level in conjunction with the central government and/or with other local governments.

The data collection process was carried out in three different stages. The first went from mid-2005 to December 2006, during which period of time 60% of social programs operated by the central government, autonomous agencies and decentralized services were registered. The early

phase of this period was considered a "pilot" experiment, as there were two simultaneous goals: testing the instrument (the survey form) and knowing the scale of the social benefits offered.

The second stage was carried out from February 2007 to October 2008 and was devoted to completing the evaluative work on central government social programs and those of 19 local governments. The questionnaire thus had to be adjusted to incorporate this.

From late 2008 to December 2009, the third and last stage was completed. Its goals were to update the information provided by the institutions that had participated in the first stage, fill in the missing data from agencies that had failed to provide information and run a detailed analysis of the database consistency. These activities ran parallel to the setting up of an electronic version of the MIDES *Social Observatory of Indicators and Programs*[14] which was largely based on the Repertoire. Given that this tool was available, an electronic form was uploaded to the web so that the agencies' authorities could update the information. This was a secure questionnaire and its access was limited to authorized personnel within each agency and to the administrators.

The MIDES *Social Observatory of Indicators and Programs* and particularly the social programs module currently shows the following information: 392 social programs operated by the central government,[15] decentralized services and autonomous agencies in 2009, and 150 social initiatives that were exclusively operated by local governments in 2007.

There were a further 348 initiatives that being co-implemented by the central and the local governments. In most cases, these programs originated from the central government and were thus national in scope, although local governments were in charge of their execution on a local level.

During the process of setting up this social information system, MIDES created a department to keep the Repertoire of Social Policies updated with data that was compatible with other databases they had developed and/or managed. The UdelaR team assisted with the process of

[14] See: http://observatoriosocial.mides.gub.uy/mides/portalMides/portalMides/portal.php

[15] National Administration for Public Education (ANEP); Public Health Services Administration (ASSE), Uruguay MOrtgage Bank (BHU); Social Welfare Bank (BPS); Uruguayan Institute for Youth and Childhood (INAU); Ministry of Education and Culture (MEC); Ministry of National Defense (MDN); Ministry of Social Development (MIDES); Movement for the Eradication of the Rural Unhealthy House (MEVIR); Ministry of Livestock, Agriculture and Fisheries (MGAP); Ministry of the Interior (MI); Ministry of Public Health (MSP); Ministry of Labor and Social Security (MTSS); Ministry of Transportation and Public Works (MTOP); Ministry of Tourism and Sports (MTD); Ministry of Housing, Territorial Planning and Environment (MVOTMA); Office of the President and its Office of Planning and Budget (OPP); and University of the Republic (UdelaR).

creating sufficient institutional capacity for this department to be able to manage, update and adjust this information system as necessary.

The research team and the staff from this MIDES department are currently preparing a report on the aggregated data that explores and describes the framework of the social protection and welfare system in the country. It is worth noting that the university team's previous involvement in the process made it difficult for them to pass over a project that, despite its weaknesses, was the result of a sustained effort over the medium term that only recently began to show its many uses.

Part III. Evaluation of the experience

Chapter 5. The MIDES perspective

Juan Pablo Labat

The following recounts the process of implementing PANES as seen from a perspective that lies somewhere between technical and political. There are many potential nuances or even differences in this content, as these processes were a primary preoccupation in the lives of many people over at least two years. These individuals would certainly emphasize and/or downplay several aspects of a reality that is often described partially and incompletely.

One of the key shortcomings in this section is the subject of this analysis, namely the implementation process of PANES itself. We do not cover implementation of some of the more minor sections of the plan, and instead focus on the main program, "Citizen Income." This central part of the program determined whether households were included in the plan, but did not address problems faced in the other PANES programs.

Another shortcoming arises from the particular space the facts are observed from: it is a suitable location for the design and implementation of solutions, but is far removed from political decisions are actually made.

On March 28, 2005, a law was passed, creating the Ministry of Social Development (MIDES). Among other things, it details the authority of the ministry as the governing body in matters of national social policies and its coordinating role between institutions. This role allowed MIDES to build a space for political intervention in which it could coordinate policies throughout the country in order to optimize program results, by avoiding overlap and generating complementary actions.

In addition to several institutional contextual facts mentioned above, and which are broadly attested to, we should highlight the enthusiasm generated around the idea of a national publicity campaign that would support the abolition of extreme poverty and favor social inclusion. This

enthusiasm transformed the initiative into a truly captivating story, which was maintained throughout nearly the whole duration the administration in several areas of the country.

As experienced by every massive but focused program, PANES had to overcome the major challenge of choosing the best implementation method to attain its goals. Unfortunately, the nature of the program means that it is essentially impossible to know whether the selected implementation design was the most appropriate. Despite the existence of opposing opinions, however, we can certainly point to valid reasons for choosing the adopted methods.

Up to that point, the most important discussion among the implementing partners focused on the question of how entry into the Plan would function, given that it had been designed to focus on a population that would benefit from all the programs in the Plan as opposed to being designed for certain groups to participate in selected parts of the plan.[16]

The discussion thus centered on whether there should only be one verification method (a generic form) to process information on the households' social condition, and whether it should be used throughout the country by specialized teams, or whether local networks would organize localized support for the plan.

The first option was settled upon, although reality would direct its way. In the end, a design was adopted with the following characteristics:

1- The unit of analysis for the plan's execution was the household.
2- Focus was directed on a generic diagnostic of each household's situation, and was not on a program-by-program basis.
3- The targeting strategy was based on a previous selection of beneficiary households that used standardized national procedures and a centralized information processing.
4- The beginning of the Plan involved inclusion of households in a conditional monetary transfer program entitled "Citizen Income." This was the main part of PANES, and came with the possibility of participating in other future programs.

[16] Later on, some programs became more flexible and new programs emerged which addressed other populations that were not part of the original plan's target population.

Implementing the plan

To begin program implementation, it was necessary to first verify that a qualifying household meets the required conditions, such as: 1) being over the ICC threshold (see chapter two) and 2) that the household's per capita income did not exceed an established threshold.

The implementation thus required candidate households to be visited across the country. These visits were organized following two requirements: the first was the detection of areas with high poverty indicators, where it was decided that all households in this category should be visited;[17] and the second was the opening of administrative kiosks where potential participant households would place their request for a visit.

The second requirement had to be supported by the Social Prevision Bank (BPS), which provided an excellent channel through its national branches.

Nonetheless, these procedures did not result in a perfect reach across the nation: despite having broad coverage, BPS kiosks did not sufficiently cover the entire country. Furthermore, neither the detection of poor areas, nor the time spent on individual household visits, were sufficient to achieve the objective of perfect coverage.

However, the objective was later achieved through other strategies, such as having staff to roam the country tending to complaints, and continuous registration through BPS kiosks. This allowed a large majority of the target population to be included in the plan within its first two years.

Visiting households, an ad hoc design

The decision to use a centralized and standardized information collection and processing method implied having a team of individuals, which would efficiently use the form that was designed. It was also necessary to allow for dissection and evaluation of the information received, after which the results would be digitized.

[17] This procedure was called "landing" (*desembarco*).

The fieldwork initially began as a joint process with the University of the Republic to support the first module – visiting areas with highest poverty rates – had not been completed after the first month of work although 12,000 households had already been visited.

After this situation, and in the midst of a heated political debate about the participation of civil servants and volunteers in the collection of data, the university was no longer to be in charge of the information collection process: this task was passed on to MIDES employees which had been brought over from other state institutions (employees on commission), MIDES personnel contracted for the task, and volunteers.[18]

As time passed, volunteers – especially in Montevideo and particularly for certain types of office tasks – became too few in number or did not achieve adequate productivity and quality of work.

By the last quarter of 2005, six months after inception, PANES was stuck in neutral and there was a sentiment that the government's flagship initiative could sink. By then, volunteers and civil servants had conducted thousands of visits and data was not being processed fast enough, the decision was made to professionalize some parts of the process, and university-educated individuals were contracted to carry out the effort in a more professional manner.

Interns from the Uruguayan Labor University (UTU)[19] were hired. These were mainly young individuals with no previous experience in data entry, but in a short period of time and thanks to proper supervision, they were able to surpass the initial productivity levels of the first group of volunteers and civil servants.

Along with professionalization of the data entry, the first MIDES field team was hired to conduct visits to the country's interior, Montevideo and other surrounding territories which were lagging due to lack of volunteers.

At this point in time, the final design for PANES was ready and the process would be continued by MIDES:

[18] The fieldwork was initially performed by volunteers and civil servants during the first two years, except in the capital and surrounding territories.
[19] The UTU provides secondary educational level training; in this case, individuals with a background in management studies were sought from the institution.

1- Professional fieldwork by students studying advanced social studies courses, and by recently graduated professionals working across the entire country in two-year "internships";
2- Review and moderation of work also to be performed by the same team; and
3- Data entry also performed by UTU interns.

Although volunteer work continued, and the volunteers were important in attaining the stated goals in some parts of the country, information collection was basically professionalized by 2006.

In summary, the initial stage of fieldwork design was largely *ad hoc* and was modified along the way in response to the results. Civil servants from MIDES directed the fieldwork first, while volunteers and then increasingly university students or recent graduates conducted it. MIDES civil servants and some volunteers also directed administrative tasks, which were primarily conducted by UTU students.[20]

Input first… analyze later

In order to process a large volume of standardized information, it was necessary to confront and resolve a series of complications. The ministry was at a permanent crossroads to determine which informational errors could be tolerated and which could not. This involved altering the original software to allow incomplete information to be included then verified later. To do this, it was also necessary to resolve and permanently review thresholds for errors, inconsistencies and omissions. Poor quality information would be returned to the field, and records with minor problems would be permitted but tagged to revisit households in question in order to complete or improve the quality of the information provided.

The selection tool also had flaws as reflected by adjustments to the "algorithm." It was necessary to improve the inclusion parameters according to the perspective of MIDES authorities (see chapter 3) and to also incorporate complementary perspectives in the case of specific population

[20] In relation to information processing, it is worth mentioning the work of a volunteer that was in charge during the hardest months of work, working 12 to 14 hours per day. Without her, the enthusiasm for the work would have certainly deteriorated much earlier. Her name is Rosario Garcia "Charito", and long after having left MIDES, she continues to be in all the stories being told.

groups, such as the homeless. These complementary perspectives incorporated other more qualitative types of analyses, which included complex cases that had not been identified strictly through quantitative methods, due to the low statistical weight of some groups relative to the available sources of data when the selection methodology was created.

Allowing flexibility on the requirements for inclusion permitted other households with specific cases to be included into the plan while recognizing that there was a risk of leaving out households which met the criteria. Flexibility also allowed well-deserving households to be included without forcefully requiring full consistency and completeness of information.

All of this generated a new work phase that began towards the end of 2006 and which lasted through 2007, called the "Revisit Phase." It involved verifying the provided information and turning down around 30,000 households that did not meet the stated selection criteria. These households were not necessarily turned down solely on the basis of the visits, given that the BPS reviewed the households' formal income to help enforce the targeting criteria.[21]

No household was turned down unless the BPS had determined that its income was greater than the established threshold and there had also been a visit for verification. Despite this, some households were turned down because their income exceeded the threshold due to cyclical circumstances. In some cases, these households did not repeat their request to be included in the plan.[22]

The plan's "over-coverage" and the households to revisit

By the beginning of 2006, it was obvious that the plan would have a greater coverage than was initially estimated. This was in some respects justified as the actual population being assisted by an emergency plan was greater than the initial estimates, and it was in other respects unjustified as the "target population" continued to grow in some areas of the country, becoming several times greater than the initially estimated population.

[21] The BPS is the institution in charge of social security. It has a registry of workers and employers, and thus has automatic access to household income information by following the work history of formal workers. In the cases of informal work, which is usual in this specific population, it is impossible to verify household income through this method.

[22] In March 2007, registration for the plan ended and only extreme and special cases were considered after that period. Those that were turned down from the program for having higher incomes after that date were generally turned down even if their income only exceeded the threshold for only one month.

This reality motivated an in-depth study of the PANES database and new studies on socioeconomic realities conducted in collaboration with the Institute of Economics (IEcon) to determine the next steps. These studies indicated a need to conduct a large number of supervisory visits during what was called the "revisit phase."

Revisited households were generally in one of the following four conditions:

1- Households that received a conditional acceptance at the beginning of the plan when ministry authorities still had doubts about employing the household selection tools proposed by the university.
2- Households described above, that were accepted into the plan as criteria became more flexible with respect to the quality and completeness of the information provided.
3- Households that were identified through a review of official records and appeared to have been incorrectly allocated benefits due to having provided incorrect information, such as in relation to household composition.
4- Households that the authorities later determined to have characteristics that were incompatible for acceptance into the plan, such as ownership of washing machines, motorized vehicles, current or previous entrepreneurial activities reported in BPS, etc.

Households accepted with conditions

Many households visited in the first phase of the fieldwork were classified as ineligible for the plan. The authorities responded by conditionally accepting all households that declared a per capita level of income under the pre-established threshold.

The university was in charge of completing the forms and critically reviewing them in the first phase of the fieldwork. These forms were digitized with great difficulty as several unforeseen circumstances arose in relation to organizing volunteers and the software chosen for the task.

The multiple delays in the task – a task seen by the entire political system as an important indicator of the administration's performance – forced ministry authorities to postpone the verification process to a later phase and to accept certain households into the plan.

This was a logical decision considering that it was difficult for the authorities, and even more so for society and the political system, to understand how information collected by the university was unable to identify households belonging to the plan's targeted population. No one had a clue how complex and long the process of identifying the beneficiary households would be.

They had to have believed in some form of selection tool, and the previously famous ICC or "algorithm" did not have the credibility to resolve the concerns of the political machinery regarding the somewhat improvised endeavor.

As such, the first major list of inconsistencies in the proposed PANES selection criteria emerged. It would take two and a half years to largely minimize these issues, although they never disappeared completely.

There is nevertheless some certainty that, although it was not the most equitable criteria, the plan's first step was fundamental for its legitimacy. Moreover, the flexibility of the criteria discussed above managed to ensure that nearly all of the poorest households in the country received assistance.

Households that were accepted into the plan through the flexible criteria on quality and completeness of information

As noted above, the flexible criteria on the quality of information introduced inconsistencies into the database by allowing the acceptance of households that would not otherwise have been included in the plan if proper control measures had been maintained.

Households were accepted in relation to a set of critical needs defined from a group of quantitative variables, although not all of this information was adequately filled out in every case. For lower priority cases, i.e. those whose variables were less relevant for the authorities due to their low weight in the eligibility formula, the critical needs index was automatically calculated with the minimal values needed to guarantee that the household was included in the plan. Households to benefit from this criteria would be revisited later to verify their assignation.

This was needed in order to use the selection mechanism; if any variable lacked a value, the score could not be calculated and the household could not be classified.

Although this criterion favored the inclusion of more households that did not qualify for the Plan, it also allowed the inclusion of households that clearly would have been excluded if the strict criteria on completeness and quality were maintained.

Once the decision was made, it was later demonstrated that the newly included households were in fact poor, and that it was well worth using a flexible criteria through the implementation process.[23]

Households that were identified as having incorrectly declared household composition

During the developmental phase of the PANES database, and with the significantly excessive coverage, several quality controls on the information were performed. The first significant finding was a small group of beneficiaries that had the same address but were declaring to belong to different households.

The original software to identify individuals was designed such that no duplicate records could exist for the same individual, and attempting to enter them would be invalid. This could not be applied for the address fields. Transferring the duplicate controls implemented for individuals to the address fields was basically impossible. This was due to the lack of an established nomenclature for the address fields by BPS, the decision to use self-completed forms (on paper) to respond to the large number of applications for the plan, as well as the lack of a scaled map of blighted areas where formal addresses were not available.[24]

[23] Many incomplete variables that did not require a factual observation were completed through phone calls or eventually during the revisit.

Some typical cases of variables that could be gathered through telephone calls and not necessarily through physical observation were the national identification number, age and years of schooling of any household member. It was very different for variables such as those related to comfort or living conditions, and these variables almost always needed to be included in a revisit.

[24] Montevideo is administered through neighborhoods in which there are about 48 to 64 units arranged by "neighborhood" or "great neighborhood." Only in this variable, filling out the self-completed registration forms provided for more than 2,000 different neighborhood units, later reduced to 48 in order to ease administrative and manual labor by many people and many days. The number of streets was not counted through this procedure; nonetheless, given that Montevideo has approximately 3,300 streets, the estimate could have easily been over 10,000

Only through an analysis of the PANES database, performed later on using statistical software, made it possible to systematically identify repeated address lines that would be candidate households for revisits to prevent duplicated allocation of benefits.[25]

Households with washing machines and/or motorized vehicles and entrepreneurial activity

The substantial time commitment by some MIDES authorities toward the study of very diverse and complex social conditions, especially during the plan's first two years, turned them into expert observers who were capable of providing valuable guidance on fieldwork performed.

After much time studying individual household conditions, during every weekend over an entire year, a decision was made to identify households which had washing machines and/or motorized vehicles in the database. BPS staff later suggested that all personal identity numbers in the program be checked against BPS's database of entrepreneurs to identify those who, at any time in their lives, had been identified as self-employed. This was used to update the list of households to revisit, in addition to those described above.

The result of the revisits

The general outcome of the revisits, not completed due to logistical problems,[26] was that more than 30% of the revisited households with issues 1, 2 and 4 and somewhat less than 20% of the revisited households with duplicate addresses were turned down.

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or 15,000 records. This added to the lack of house numbers made the procedure to detect multiple applications non exhaustive.

[25] The PANES definition of a household was often adjusted during the initial phase of its implementation because the National Institute of Statistics' definition was not the best to identify how families had arranged themselves into households. Empirically, a "household" was considered without taking into consideration family ties that shared a roof or a roof and "cooking pot," but instead only considered those that shared the "cooking pot" as this seemed to be the survival strategy that identified the best and most stable ties. Furthermore, certain dwellings made of recycled materials are easier to build as several structures on a piece of land rather than as an integrated building.

[26] The inspection and control method by the plan's targeting criteria was always inferior to the implementation system, which used all available logistics.

Adjustment of the ICC or "algorithm"

Although the relationship between technical analysis and politics could have been much better in the initial days, an intensively collaborative relationship rapidly developed. There were three main dimensions to the relationship between the university and the new MIDES, each of which generated different cooperation agreements and outputs.

Regarding information technology, the university helped develop the capacity of MIDES for data entry into the BPS systems, where data would be processed and the target population selected.

Regarding the fieldwork, the university designed software to collect information in the first phase, but its functionality was not well defined in relation to the objectives and would conclude as was previously described.

Regarding the selection of beneficiary households, the university developed a tool for this purpose, and updated it as the plan evolved.

This was the most stable effort over the course of the implementation and was the one that produced the most worthwhile interactions that subsequently generated new joint efforts, various outputs and interesting cause for reflection.

Toward the middle of 2005, a few months after the plan began, the selection process seemed to generate too many negative results for single households or couples without children. This motivated a call by MIDES for the Institute of Economics to review the selection algorithm. For this purpose, MIDES chose a group of cases to be analyzed.

Furthermore, it was noted that departments outside the capital metropolitan area were overrepresented, contradicting the previous studies performed by the National Household Survey (ECH in Spanish from *Encuestas Continuas de Hogares*). This led to another study on the matter, although this problem continued throughout the plan's implementation period.

In September 2005, the algorithm was adjusted to correct for these issues, and a deeper permanent collaborative phase began between MIDES and IEcon, which was characterized by a permanent exchange as specific cases emerged throughout the population selection process.

This collaboration progressed to the point that the processing and analysis of information included other institutions such as the Ministry of Economics and Finance and the BPS. One of the outputs of this collaboration was the support for the design of a new plan that differed significantly in that it was no longer an emergency plan, but an "Equality Plan."

Computerized monitoring of social conditions and the impossibility of eliminating case studies

While computerized solutions appear to be one of the most ideal ways to implement large social programs, they are not sufficient to resolve social problems on their own.

A control and monitoring registry for the plan's beneficiary population was certainly needed; nonetheless, no one ever had imagined the complications that operating such a system would generate, and that it would result in many hours of office work and thousands of visits to candidate households.

Two a priori assumptions needed to be addressed before getting down to work. The first assumption was that households were a unique environmental attribute for each individual, and the second was that everybody would need to either have or acquire an identification number; the national identity number appeared to be the most suitable candidate.

The system anticipated that when a person presented an application for their household, no other application could be submitted in relation to that person. In other words, each person only lived in one household and every candidate household would present its request through one of the persons in it.

Thus, given these assumptions, the computer system froze any request that involved a person who was registered in another household but had not informed the requester, even if no one in the other household had received any benefits.

The result of this control system was that any person named in a new application who had already been visited through another application process, and for whom a decision had already been made on its social condition – whether they entered the plan or not – resulted in the

invalidation of the new application, which was frozen without informing that person or any others mentioned in the request.

Furthermore, any application that included any person who was already involved in another application process, which had not yet received a visit or which had been visited but had not yet been entered into the system, was also frozen. Once the application was frozen, it excluded all households mentioning the person until the matter was resolved.

For example, if a family composed of a mother and five children submitted an application, and the father had also made a separate application for one of the children and had been visited, then the new application by the mother and for the other children was frozen. If the father's application had not been visited yet, then both requests would be frozen.

This procedure produced a perverse system that froze a large number of requests, whether identical or slightly different. The original idea was simply to avoid "innovative" strategies by the families to access benefits they did not qualify for.

People's anxiousness to be acceptance into the plan, fueled by a political system that had prioritized the plan in its agenda, added to the execution delays due to lack of an implementation design. It is thus easy to understand that there would be thousands of duplicative requests with partially or even completely similar information. After all, the population did not know how the plan was to be implemented. Furthermore, it was not clear to them what it meant to have a certain level of critical needs that would allow them to be accepted into the plan. Many people registered two, three, and even seven times simply because they had not been visited yet and several months had passed since the previous registration without an answer.[27]

Noting the size of the so-called overlapping requests problem, a specialized team was formed to release the requests administratively or through special visits; this would allow people that had been waiting for months to be accepted into the plan. Among these overlapping requests, a large number of causes had to be considered one at a time to eliminate the overlapping.

First, in cases where the overlapping requests were identical, only the initial request was considered and subsequent ones were cancelled. Since the benefit was retroactive to the date of

[27] Almost one in three Uruguayans requested a visit by a PANES agent; in the end one in four was visited.

the request, this ensured that eventual beneficiaries would not be harmed by receiving a lesser benefit than they were eligible for.

An administrative process addressed requests which included other individuals, validating the application with the greatest number of people. Increasing degrees of complexities and solutions were progressively incorporated.

The majority of the overlapping issues had to be resolved on a case by case basis, with households visits used to both evaluate the households' social conditions and to find out which family arrangement was valid in order to discard the invalid ones. This motivated a phase of visits to households with overlapping requests and a design of a new information processing office that specialized in resolving these problems. It was called the Review Office, and it played a definitive role in PANES' processes to address complex cases which combined administrative and computerized processes and fieldwork.

Bringing PANES to a close and improved targeting

As indicated above, the ad hoc design of the fieldwork included two models that were called *desembarcos*; these consisted of visits to all households in previously identified areas with high levels of poverty as well as visits to households according to the requests made by the households themselves.

The first model only lasted for one month and covered the entire country searching for geographically concentrated pockets of poverty in each department. The idea was to register households which were unable to register in any office in any city due to their condition of major exclusion; households in this group would otherwise be excluded from the plan despite indisputably belonging to the target population.

Nonetheless, capturing this population required a design that could be sustained over time. The absence of such a design was mitigated by the continuous work of civil society organizations that reported cases and neighbors who boarded MIDES vehicles to support the search for potential candidates.

A great "combing" job throughout the country took place in several stages while the household visits were being carried out. These requests for visits were submitted at BPS kiosks which

helped improve targeting by including more of the excluded population that was not captured in the initial *desembarcos*.

This resulted in hugely inefficient work, as judged by the results of visits and the cost of the work, but it was useful for fine tuning the plan once most of the target population had been included.

While some who had initially been accepted into the plan were later turned down, other groups of beneficiaries in extreme poverty were being discovered on an ongoing basis, even up to the final days of the Plan. Only a fieldwork strategy designed over multiple phases could respond to targeting criteria adjustments for such a program with a centralized organizational approach for its implementation.

Popular culture and social programs

The culture of survival as generated by previous programs that focused on some aspects of household realities also played an important role in the development of households' strategies to access the Plan.

In 1999, an expanded Family Allowances system was put into place, targeting single female parent households followed by "low income households." Both programs were introduced independently as variations of the previous Family Allowances system which began as a cash transfer to the poorest formal working households.

Both recently implemented programs largely focused on declarations made by candidate households, and false statements were often presented by omitting the male partner and by understating household income.

In some cases, both types of false statements often revolved around the same issue, as the male partner was also the main contributor to household income, but these were not systematically associated.

Implementation of the plan had to account for the many circumstances that led to imbalances within households that were associated with requirements to access the plan.

Many households that were simply formed as a survival arrangement broke up, especially when women with children had economically dependent relationships with their partners or other family members, but the Plan was willing to prioritize them as household heads in order to qualify for benefits.

Obviously, the plan affected the family arrangements of this often unstable population, generating unforeseen social issues that needed to be addressed.

These emerging issues included households constituted of minors with children or minors in charge of siblings that requested to be candidates for the plan. For the first time in history, these households were recognized by the state as rightful recipients of civil rights.

Many adolescent mothers requested, generally through civil society organizations, to be beneficiaries of the Plan and to gain independence from their families where they often lived in conditions of violence.

Many women saw the Plan as a way to become independent. As such, many new households emerged, altering the initial data and generating many more families to be visited in addition to the generational complexities caused by splitting one house into several households, such as the custody of children, etc. In general, and with very few exceptions, the outcome was the emancipation of individuals that sought to enjoy certain civil rights that they had been denied up to that point in time.

Inter-institutionality and the role of the BPS

The database fed by simultaneous data entry in MIDES and BPS was performed by the BPS using an ad hoc design that was perfected on a daily basis, as new management and evaluation functionality needs emerged for the plan. The design of this work was tasked to an inter-institutional team from all levels, which worked together with a high degree of interaction and communication, ranging from MIDES and BPS authorities to the exchange of civil servants that implemented each part of the plan.

With the exception of the design of the household selection process and the storage of information, everything was designed on the go to meet the requirements for the Plan's implementation first, and monitoring and evaluation were a secondary consideration.

The growing complexities in the information management process became unintelligible to people not deeply involved in it. This generated specialization within the participating institutions that acquired added knowledge in the form of on-the-job training that could be transferred to any professional area.

The suitability of specialized staff, whether or not they worked with computers, was often so great that the absence of any of them impeded implementation of a task.

Although this specialization process was an ad hoc result of the overwhelming circumstances, the excellent result was the training of a "PANES team" that successfully resolved all the problems that emerged. This strength could have become an enormous obstacle had it been dissolved before the plan was concluded.

The above experiences between MIDES and BPS demonstrate how difficult it would be for the team to reproduce the dynamics and production quality achieved. This highlights the benefits of creating inter-institutional, interactive processes to develop strong teams that are focused on achieving such objectives. All of this was performed while carefully managing the existing tensions between newly formed and established institutions.[28]

Role of the National Army

The logistical problem of organizing the fieldwork – while a new ministry was being put in place – along with the daily management complications in the absence of an assigned budget or its own infrastructure, was somewhat of an irrational challenge.

The ministry began to conduct visits in vehicles provided by volunteers or borrowed from other institutions with different organizational cultures, and all types of restrictions introduced multiple complications to their work.

Of all the agreements with state institutions, only the one with the National Army lasted throughout the Plan, probably due to its better efficiency and broad reach.

[28] This technical and political team was led by the MIDES Undersecretary and several BPS managers. It also had the support of the BPS's President and Vice President who were in direct and permanent communications across all levels of implementation.

There are several reasons as to why the cooperation agreement had relatively good results despite important operational challenges.

1. Fieldwork is a task that requires a logistical focus for its development, and soldiers are accustomed to executing the deployment activities involved in this effort.
2. The National Army has vehicles and detachments throughout the country, and the nature of its functions and origin of its members means that it is thoroughly familiar with every locality.
3. The areas with the highest concentration of violence are in Montevideo and its metropolitan areas. This meant that military personnel who lived in the area and drove the vehicles who were also generally poor.
4. Unlike the police, army personnel do not conduct police control activities in these areas and, despite being armed, are not viewed negatively by the people who have been subjected to police proceedings.
5. Aside from certain exceptions, related more to management higher up on the chain of command than with the soldiers themselves, the Army fully complies with the established processes for the joint work.

For these reasons the cooperation of the National Army in the development of PANES is worth noting, perhaps not so much in the initial stages where the novelty of the program was a condition for success and therefore an attractive endeavor for individuals and institutions, but more so in relation to a sustained effort through the most important developments of the Plan.

Summary of lessons learned

First, it is important to note that PANES used a standardized process to select a centralized approach to implementing the program. This was possible because Uruguay has no natural or geographic barriers, a surface area of approximately 170,000 square kilometers, and the greatest distance to the capital is approximately 630 kilometers. It has a population of just over 3 million and relatively low poverty levels compared to the rest of Latin America, both of which also contribute to its suitability for this type of project.

These relative advantages made it possible to overcome the challenges in designing and implementing a program such as PANES.

In terms of key lessons learned, although an in-depth analysis of institutional factors and various perspectives was not performed, it is important to point out a number of details that came up above.

1. Implementing a program with these characteristics requires, due to its sheer size and complexity, a previous design that goes beyond key definitions such as those related to the unit of analysis, scope, whether the plan's inclusivity implies the inclusion of all other programs, and whether beneficiaries could participate in certain parts of the program without being fully accepted into the plan, etc. This would require a logistical approach to developing the plan with a forecast of expenditures in infrastructure, communications, press, human resources, and other minor factors that need to be considered to ensure effective implementation.
2. If it is an emerging design – i.e., if much of the design will be determined during the process of implementation, as occurred with PANES – it should be known that the plan would be managed effectively, and not only on the technical front: effective management would also require political dialogue at the highest levels to ensure permanent support for the most important decisions being made.[29]
3. It is important that once the political decisions are taken about "what to do," there should be room for the technical teams to plan and execute the task in order to achieve a properly informed execution. This may involve making uncomfortable political choices that, for the sake of execution, benefit highly qualified individuals in addition to technical interactions with researchers that reflect an understanding of the differing natures of the various activities involved.
4. The design of computerized processes has to be open to all types of innovations that come up from management, monitoring and evaluation requirements.
5. Fieldwork to collect information, including future processing tasks, need to be professional and totally "traceable" in the sense that records should be kept as to who performed a specific task, when, and in what capacity. These records are crucial for evaluating the implementation processes beyond the results.

[29] PANES not only had the support of MIDES authorities at all times, but also from the Ministry of Economics and from the President of the Republic.

6. It is also important that the programs are sufficiently flexible to adjust procedures for emerging social realities or unintended consequences of the interventions to access or continue in the plan. It is not possible to foresee how the general population would react to new public policies or which design factors may stand against the stated objectives. Equity in the results should be more important than procedural equity, even when evaluated results may be conditioned by ad hoc innovations generated to improve implementation.
7. As stated before, the evaluations should be properly informed by the implementation processes to correctly asses the results and should provide, to the maximum extent possible, the emergence of implementation designs.
8. Concerning the two previous points, it is very important to achieve an effective communications policy that accounts for the popular culture the new program is being implemented in. The institutional cultures of the organizations that execute the programs and their partners, as well as how the public perceives them, should also be considered. Institutional legitimacy is a definitive part for the program's execution. Any population may block the best possible design if it does not trust the institution that is going to execute it.
9. The tools to be used to select the target population should be as appropriate as possible, making it necessary to know the quality of information that is available. Once the tools are selected, it is imperative that the adopted procedures guarantee equity and evaluate every innovation very responsibly. In this sense, it is always possible to find new complementary tools that improve the achievement of the program's intake targets. Nonetheless, these must obey careful studies of empirical facts provided by investigative work and must foresee the effects that these changes in the scope criteria may generate with respect to coverage. Furthermore, these changes should be communicated in a simple manner so as to avoid losing the program's legitimacy.
10. It is preferred, whenever possible, for solutions to problems to not be strictly administrative and that, as much as possible, any acceptance into or rejection from a program should be conducted in person; in this case, this would occur during visits to the households.

11. When thresholds are used to determine whether a household will remain in a program, it would be best if this was not based on a single piece of information. Instead, an income history of several months should be reviewed so as not to harm a household because one of its members was paid more income in one specific month with the result of pushing the entire household over the threshold. If automatic clauses are used to remove a household from the rolls like this, automatic clauses should similarly be used to bring them back into the program.
12. Beyond the complexities implied, it is essential that electronic records of these programs must not treat the individual as the unit of analysis. Monitoring the households and their dynamics is not only very valuable for research; for PANES it has been a means of resolving tens of thousands of so-called overlapping cases that reflect a complex social reality that is impossible to address through individual perspectives. Households, or better yet family arrangements, should be the unit of analysis and a point of reference to manage this type of program.

Chapter 6. The UDELAR perspective

Carmen Midaglia

This chapter discusses the regular and intensive collaboration between the University of the Republic (UdelaR) through its School of Economics and Administration (particularly its Institute of Economics) and its School of Social Sciences (particularly the Institute of Political Science), with the first left coalition government between 2005 and 2009.

Ever since the democratic opening in Uruguay, UdelaR has had different types of relationships with the central government, the autonomous bodies and the decentralized public services. Despite their differences, most of these mutually collaborative relationships did not become more permanent connections. Furthermore, in some areas related to knowledge, UdelaR was explicitly and/or implicitly excluded; in some cases, this was because its internal organization could not respond to the time constraints involved in the bidding process of specific studies; in others, because the sources of funding were not compatible with the use of teams that were already working in the public sector, and/or because the prevailing contracting system favored individuals over institutions.

The university tried to adapt to these new "market" requirements, but was unable to do so in due time, as every domain of knowledge has its own particular way of knowledge generation.

This is why the MIDES-UdelaR experience needs to be shared with the broader public, not only because of the political importance of this initiative to UdelaR, by providing researchers and advanced students with the opportunity to work alongside the state, but also because of the breadth achieved through the mutual effort. UdelaR fostered forms of public intervention within a recently created public agency that lacked the institutional capacity to implement large scale programs. It is worth noting that the university teams carried out this task without losing their technical independence, by learning to identify and respect political realities and dynamics, and more importantly, without being "fused" to the government in office.

The following assessment does not exhaustively cover all the activities implemented together by these institutions; it only provides details on some aspects of that broad and enriching experience. As usual, the following only reflects the opinion of the author, a UdelaR researcher.

Reviewing the UdelaR-MIDES exchange experience

Without pretending to cover all exchanges that occurred between UdelaR – through the School of Economics and Administration (FCEFA) and the School of Social Sciences (FCS) – and MIDES, it is possible to roughly identify two significant phases of institutional relationship building. The first period corresponds with the installation of a new State Secretariat and the launching of the PANES Emergency Plan. The second phase was the design of a new social program called the Equality Plan, the introduction of different evaluation guidelines for MIDES's public initiatives, and the definition of technical-political proposals to modernize and rationalize the decision making process on social issues – the information system called "Repertoire of Social Policies."

(i) The first steps…

In the first phase of the institutional relationship, a certain logic of urgency prevailed, accompanied by a lack of experience on how to form a mutually beneficial tie despite substantially different interests and modes of action.

MIDES focused, as it should, on meeting the Government's mandate of expeditiously implementing an emergency social program, given that any delay detracted from the political prospects of the public proposal. Furthermore, it was expected that the plan would effectively cover the critically poor, while the targeting criteria that would be applied were considered as strategically important for its socio-political success and legitimacy.

Poverty fighting programs such as PANES provide multi-sector, public goods with broad coverage, and thus need to have updated information on the poorest social strata and their geographic location to facilitate their execution. They also need to work jointly with other public services that act on similar action lines, but that are not specifically in charge of coordinating different program components.

The Uruguayan state's organizational and institutional framework did not make it easy to implement the plan as a result of: the classic separation in which public social provision is structured; the agenda of each of the secretariats and institutions involved in each initiative; and the relative "youth" of the new MIDES which was responsible for the plan. For this reason, the

government's political support was important to facilitate the implementation process, as directly expressed by the President of the Republic.

UdelaR had technical and specialized academic teams on several social issues with certain levels of information on the national population, it had the opportunity to develop and update the databases, it had the methodological tools to identify beneficiaries, and it had the aggregated knowledge on modern experiences of social protection similar to the one being proposed. Add to this, the university's interest in discovering the "operational productivity" of its knowledge or "expertise," of having access to new socio-economic data to continue its scientific research, and of collaborating in the strategies to mitigate social vulnerabilities.

Despite this apparent confluence of complementarities between the institutional commitments of MIDES and UdelaR, that promoted a whole series of smooth exchanges, the relationship required a learning process on the part of both organizations to adjust the parameters of the intervention. With the pressure on a new secretariat to implement PANES and the university's need to meet certain deadlines to conduct basic technical controls – user identification, targeting tests, surveys of other regional experiences, etc. – the bonding process did not advance without generating some noise.

The various demands on the Secretary of State and the numerous spaces generated to process applications, and to devote themselves to a place of work that allowed the organizations to meet the designated tasks, required substantial investments into managing the inter-institutional relationship. Often, during the debates and negotiations, a certain degree of confusion arose about the role that the university teams played in MIDES social programs. Sometimes there was doubt about the "appropriate and optimal" levels of involvement by UdelaR representatives in the collaboration to achieve established objectives and goals, mainly for PANES.

Clarifying the roles of the public agencies, as well as their specific responsibilities, became a key component in this relationship and future agreements. The fact that effort was needed to precisely identify the roles and tasks to be accomplished was no surprise given that the request for assistance came from MIDES itself. However, it was one of the few opportunities when the Central Administration reached out to the University as an institution and to its research teams

for their technical contributions to generate criteria to facilitate the implementation of a complex social plan.

The difficulties not only involved the need to modify approaches to working as well as the contractual modalities that legally empowered the collaboration between the institutions. Neither MIDES nor UdelaR had sufficient knowledge of the "rules of the game" to enter into mid or long term agreements between state agencies. An important part of the university's experience with third parties mainly involved exchanges with a broad group of academic organizations, with international entities that supported specific studies, and with a series of public and social institutions that needed specific analyses performed relatively quickly.

As a way of illustrating the inconveniences that emerged in this exchange framework, it is worth mentioning that one of the first collaboration agreements between MIDES and UdelaR through the FCEFA and the FCS was produced during that first phase. Processing the agreement took 7 to 9 months, and when it was approved by all involved parties, many of the agreed tasks were already well underway and the researchers and assistants were waiting for their respective contributions. One of the learning issues was that of the legalities of transferring funds for expenditures, investments and salaries on an as-needed basis. On one occasion, members of UdelaR proposed to forfeit their salaries to purchase a computer with more storage capacity than the one that they had at the time. This request was not approved despite the strategic importance the acquisition had in completing the assigned tasks.

These are but a handful of isolated examples relating to the multiple (political, technical and formal) factors involved in the learning process of an inter-institutional bond that was intended to mutually benefit the participating organizations.

(ii) Together and different

The second phase in the MIDES-UdelaR relationship lasted approximately from mid-2007 until the end of the first leftist government's term in office and eventually differed from those of the first phase.

The need for urgency and the speed that helped build the initial link grew into further exchanges framed within an agreed-upon schedule of actions by both institutions. This program

occasionally underwent small changes as a result of additional technical support requests, but never lost the regular rhythm it had attained.

It is also pertinent to confirm that the most remarkable issue of this period was, without a doubt, the mutual trust and legitimacy that grew between these public organizations. Each of them had thoroughly identified its area of work, the activities it could and should assume, and the responsibilities associated with the agreements they reached. It is also important to highlight that these entities had entrenched themselves into performing their assigned tasks. MIDES was building relevant, technical and institutional capacities that facilitated its relationship with the university. UdelaR, on the other hand, had obtained plenty of knowledge about how the state functioned, about bureaucratic and political timing and of adequate mobility to present its own perspectives on technical matters of public policy.

Despite the strengthening of the inter-institutional link and the "normalization" of exchanges, new challenges emerged, generated from the deeper relationship and from the emergence of other types of support requests.

In this second phase of the relationship, the university teams were invited to collaborate in the design of a new social policy, the Equality Plan that was to replace and transcend the Emergency Plan, and both institutions simultaneously had the technical obligation to consolidate lines of action they had timidly begun in the first phase, as was the Repertoire of Political Sciences.

Contributing to the design of an Equality Plan

Once the end date for the Emergency Plan had been confirmed for December 2007, a trial phase and debate began for the drafting of a modern, long-term protection alternative that would gather the accumulated experience of PANES, that would broaden its coverage to other population strata with socio-economic needs, and that would incorporate a series of allowances that were part of a Uruguayan welfare scheme.

The Equality Plan was another important area in which UdelaR was asked to participate. MIDES authorities invited researchers to join to a series of technical groups that at that time had valid work agreements with the public agency.

At first it seemed that the similar "confusions" from the initial phase repeated themselves, in which the various specific roles were not clearly defined. Political figures with MIDES did not have a strong accumulation of knowledge about this field of work, namely, the design of public policies. Participants from UdelaR were also not convinced that it was institutionally pertinent to participate in this organizational sphere bound to the development of a new Social Plan.

Despite emerging doubts, the previous experiences between the Social Secretariat and UdelaR helped them distribute tasks and roles which suited the profile and power of each of the public entities.

A technical-political workspace was developed in which delegates from many segments from MIDES, BPS, and UdelaR participated. It was managed by representatives from the new Secretary of State which coordinated the activities delegated to the participants and which were also adjusted to the "political deadlines" expected for the design of a new social proposal.

It is important to note that all participants in this environment were professional social scientists, economists, sociologists, social services assistants and political scientists, albeit with different forms of institutional involvement. Some professionals had the political responsibilities to the agency that referred them, others were technical civil servants and the rest were professors and social sciences researchers from UdelaR. It is also worth mentioning that the shared or relatively common technical knowledge of the group, mainly from the social sciences, facilitated dialogue and the quick understanding between the members to the extent that they shared common analytical approaches to deciphering the socioeconomic and political reality.

The university teams were requested to support two types of tasks. One of them involved the testing of targeting scenarios for one of the strategic allowances of the new plan – related to the conditional income transfers or Family Allowances – intended for those under the age of 18. This activity allowed the formation of a smaller somewhat permanent work team that exclusively took care of adjusting the new cash transfers and sometimes provided advice to the Council of Social Sciences[30] on the issue.

[30] The Social Policies Council exists to coordinate state allowances on social issues, including the participation of the main public organizations in charge of social forecasts and is coordinated by MIDES.

The other type of collaboration requested from the university teams was to gather regional and international practical knowledge on how to build a social safety net that was able to address a broad range of vulnerabilities or types of social risks which go beyond just looking at the indigent population. In this regard, European experience related to the modernization of social assistance and how they were organized institutionally, along with their previous welfare matrices, were consulted. This background search on social protection issues helped guide the debate and define the parameters upon which the Equality Plan could be framed.

Once the general design of this new social initiative was settled upon – with the agreed-upon public allotments for the participating professionals, and the temporary withdrawal of the issues that generated serious disagreements or technical objections until a political resolution was found – the preliminary version of the Equality Plan was taken to the Council of Social Policies.

From that point on, the university team stopped intervening in this area because a round of political consultations and negotiations had begun which resulted in certain changes to the plan and from which the required financial resources to implement the plan were obtained.

Once again, MIDES and UdelaR proved that they had each understood their respective institutional roles, and that despite the attractive and challenging task of developing public protection policies, no boundaries had been overstepped in terms of collaboration and support among public entities.

Final thoughts

Based on this brief summary on some of the specific areas of exchange between MIDES and UdelaR, it is evident that both institutions made a significant investment to learn to identify and fine-tune the particular organizational dynamics of the respective public entities.

Although both organizations had specific interests, some became shared interests once the different motivations that fed into this bond were recognized and once the activities, work areas and responsibilities were defined. MIDES was in charge of implementing the Emergency Plan as well as developing the information systems that supported its coordinating role for social policy. UdelaR would contribute to these goals so long as it was free of policies that limited its scope of participation on the project or that curtailed its independence.

For their part, MIDES enhanced the university teams by allowing them to learn about implementation of social plans and the practical impacts of the targeting criteria they had the privilege to design and recommend. Furthermore, they were taught to manage public information used for academic studies, and above all, they were able to become familiar with the State's working environment that was a subject of analysis even though the operational dynamics of the State were not fully understood.

The relationship was certainly not free from tension and confusion regarding the roles that each party had to fulfill. Nonetheless, the respect and trust generated between the partners made it easier to resolve difficulties that always exist in such a shared endeavor.

Chapter 7. The use of evidence-based research in Uruguay's anti-poverty programs, 2005-2009: Effective "bridging" or cashing in on returns from social capital?

Andrés Rius

Introduction

On September 4, 2009, an award committee of the Poverty Reduction, Equity and Growth Network (PEGNet) voted the collaboration between the Universidad de la República (UdelaR) and the Ministry of Social Development (MIDES) as the strongest example, among multiple candidates from around the world, of a "best practice in the cooperation between research and practice" in poverty reduction. PEGNet is a global network. It was founded in 2005 as a joint initiative of German research centers, universities and aid agencies, and it is one of the many donor-funded networks striving to raise the quality of development research and to maximize its influence in policymaking.[31] The award committee took into account the relevance of the research questions, the design of the link between research and policymaking, the quality of research, the capacity building and sustainability of partnerships, and the originality of dissemination to specific user groups or to broader audiences. The committee justified its decision by stating that the UdelaR-MIDES collaboration "convinced all committee members and impressed in particular by the quality of cooperation, its direct link between research and policymaking and the quality of the capacity building component which was, in addition, South-South and not, as so often, North-South."[32]

While the challenges and wisdom of defining and identifying best practice in policy processes through international comparisons could be the subject of lengthy debate, there is little doubt that the experience of collaboration in relation to Uruguay's anti-poverty policies has many features of good practice in the use of research-based evidence for policymaking. This volume describes various aspects of that collaboration, and discusses achievements and difficulties faced along the

[31] Other such networks are the Global Development Network (GDN), and its regional partners such as the Economic Research Forum for the Middle East and North Africa (ERF) or the East Asian Development Network (EADN); the Poverty and Economic Policy Network (PEP); and the Evidence-Based Policy Network (EBPN). See Stone and Maxwell (2005).

32 http://www.pegnet.ifw-kiel.de/activities/events/the-pegnet-best-practice-award/?searchterm=best%20practice, accessed on June 24, 2010.

way. The chapters of this book (and the previous note by Amarante et al, 2010) demonstrate that the experience had some unusual and auspicious characteristics that have provided a wealth of material for existing analytical frameworks and may also justify viewing the collaboration through other conceptual lenses.

More specifically, the collaboration between UdelaR and MIDES could be seen as an illustration of successful "bridging" between the worlds of research and policymaking. However, it will be argued here that it constitutes a useful example that exposes some gaps in an international bridging consensus, and provides good reasons to think about policies, politics and research from other complementary perspectives. If an alternative approach demonstrates its usefulness for understanding what is considered as "best practice" by a qualified group of international experts, perhaps it should be given a chance to provide new insights and recommendations for key players and stakeholders in other parts of the developing world.

1. The "bridging" approach

Since the turn of the century, there has been an explosion of analysis and discussion on the use of research and evidence in development policy. Court and Maxwell (2005) cite more than a dozen thematically specific references in the first half of the decade alone, including various collective volumes and series of case studies which would increase the totals by several orders of magnitude.[33] The reasons for this boom are not difficult to make out. The wave of studies on the research-to-policy nexus in development has followed or moved together with (i) the rise of a global discourse highlighting the role of knowledge in development, (ii) heated arguments over the effectiveness of development assistance, and (iii) broader reflection and debate surrounding the practical relevance of the social sciences and the rationale for their public funding.[34] Work on the policy-research nexus in development moved along with these other three related streams of analytical contributions and public discourse. Such an impressive level of effort (and the support

[33] Only the "Bridging research and policy" project carried out by the Global Development Network included 50 summary case studies (Court and Young, 2005) and other agencies such as the International Development Research Centre have produced their own series of studies (Carden, 2004). Stone (2009) provides some updated indicators of output.

[34] On knowledge and development see, e.g., Wolfensohn (1996) and Stiglitz (2000). On aid effectiveness, the catalyst of the debate was Collier and Dollar (1999). Donors have been reported to spend over US$2 billion per year on development research (Court and Young, 2004). On the relevance and funding of the social sciences see, e.g., Davies, Nutley and Walter (2005).

of donors) could not have gone forward without producing a number of potentially "actionable" lessons based on what seems to work, and what seems not to, in applying research to development policy (ODI, 2004; Young and Mendizabal, 2009; Pellini and Serrat, 2010). Some of those lessons have gradually become conventional wisdom in this growing sub-field of the policy sciences.

The international consensus begins with recognition of the gap between research and development policy, and argues that it is in the interest of the least privileged countries and segments of their societies for this gap to be bridged. It wisely departs from previous assumptions and models about the policymaking process that had proven unhelpful in general, and that were grossly inadequate in a development context. For example, most analysts and practitioners acknowledge today that the policy process is not a linear one. Labels such as "problem identification," "evidence gathering," "assessment of alternatives," and "choice among alternatives" may be of didactic use but do not reflect a clean sequence of distinguishable stages in formulating or implementing policy. The new consensus instead favors a richer view of the policy process in which knowledge generation and political dynamics interact much more often and in a more disorderly manner, and the stages of the process have fuzzy boundaries or overlap over time (Young and Mendizábal, 2009).

That much can be observed in the collaboration between MIDES and UdelaR. In fact, when UdelaR was asked to help tackle specific challenges, the Ministry (MIDES) had already announced that it would launch an aggressive program targeting the poorest 20% of those below the poverty line, with the goals of alleviating the consequences of one of the most severe economic crises in Uruguayan history. It had also proclaimed that the target group was to receive benefits within three months, creating high expectations and implicitly setting tight constraints for any formal assessment of alternatives that would follow the early political announcements. Moreover, the discourse supporting the anti-poverty campaign was somewhat contradictory, correctly linking the increase in poverty rates during the previous five years to the 2000-2002 crisis, but somehow incorrectly assuming that targeting the poorest would be sufficient to counter the poverty losses of the 2002-2005 period. Evidence would have shown (and eventually persuaded the authorities) that a concern for the poorest would not necessarily quickly reduce the poverty headcount or alleviate the situation of those who had become poor due to the crisis.

Moreover, what could be seen as logical inconsistencies from an academic standpoint belonged to a powerful discourse that mobilized support for a new approach to anti-poverty efforts.

Two years later, when the first anti-poverty plan (PANES) was winding down as planned, the design of a new anti-poverty strategy (*Plan de Equidad*) followed a more systematic process.[35] But it took these two first years of more chaotic interplay between politics, policies and expert knowledge to develop capacities and achieve that outcome. We should point out that the process behind the Equidad plan was not perfectly linear either.

It could be argued that the success of UdelaR researchers in influencing social programs over the 2005-2009 period was a reflection of their ability to navigate (or to quickly learn to navigate) the gaps between research and policymaking. After recognizing the non-linearity of the policy process, the conventional wisdom on bridging also highlights the differences in incentives, capacities and constraints between researchers and policymaking. It also highlights the multiplicity of factors that must be understood by policy-oriented researchers in order for their research to successfully influence policy to the maximum extent possible (Young and Mendizábal, 2009).

At a workshop organized by the Institute of Economics (IEcon; see Amarante et al, 2010), researchers who participated in the collaboration acknowledged that they had little prior awareness of the real capacity deficits in the Uruguayan public sector, and of political processes, when they were called upon to provide support. For example, with their academic background, they found it difficult to understand that the newly created MIDES did not have, and could not easily compile, relatively basic information about existing anti-poverty programs in the country (a small unitary country of 3.3 million people).

Also, various researchers long believed that the timing of the cash transfer component of PANES was mostly driven by political dynamics rather than careful analysis of capacities, resources and intended outcomes. In their view, the program should have started in a few small urban centers before scaling it up to the national level. The researchers had to learn about political dynamics that make politicians announce plans before the plans have been carefully designed (sometimes pushed by the electoral calendar), and about political logic that makes it unacceptable for a high

[35] The stark differences between the two processes, which were separated by two years, was highlighted by both officials and researchers during a workshop organized by the Instituto de Economía (IEcon) in March 2010.

level politician to acknowledge planning errors. They also came to understand that those tendencies, more pronounced in some politicians than others, could also be associated with the drive required to pull complex public policies through lethargic bureaucracies and challenging political environments. Those researchers eventually took advantage of the lessons learned and were able to promote an earlier and better planned debate on the successors to PANES.

In a similar vein, officials from MIDES noted that researchers' capacities to make their arguments intelligible to non-specialists had evolved, particularly when writing to the highest levels of the Ministry (i.e., the political appointees). Bridging specialists would not have been surprised, and if the collaboration was ultimately fruitful, they would have expected researchers to learn (again) how to speak the language of the laypeople. In a similar vein, the researchers' awareness of their own technical limitations and early requests for support from knowledgeable colleagues in foreign universities would – from a bridging perspective – both support the general strength and robustness of the research findings, another determinant of success for bridging efforts.

There is little doubt that IEcon researchers had long wanted their work to inform public debate, even before the left-of-center government was elected. The researchers had disseminated their findings to a broad audience, and had agreed to participate in various fora where they could be heard by like-minded political and civil society actors. While it may have come at some cost in terms of academic virtuosity, they had a tradition of pursuing a policy relevant research agenda, collaborating in interdisciplinary teams, and working in networks and partnerships. Bridging experts could have predicted that they would be in a stronger position to influence policies from the very beginning (see e.g., Young and Mendizábal's sixth key lesson, in Young and Mendizábal, 2009).

2. What might be missed by the "bridging" perspective

In the early stages of the collaboration, MIDES sought help from IEcon to solve a very practical problem. Assuming that tight financial constraints set stringent limits on the scope of the PANES program, and seeking to reach as many of the most vulnerable as possible, MIDES needed to devise a targeting mechanism that could withstand the scrutiny of politicians of all stripes, and

could not be questioned as covert patronage.[36] To achieve that end, it sought support from what was clearly a center of excellence in the study of poverty in the country.[37] Bridging analysts would see this as a good sign that Uruguayan politicians were clever enough to look for the best available providers of evidence, and that the IEcon researchers had succeeded in making their studies both technically solid and well appreciable for those who might eventually use them. However, a parallel story was unfolding that led to the formation of this partnership.

The Minister and the Undersecretary were respectively former and active members of the Communist Party, which was part of the broad coalition that won the national elections in 2004. They had been appointed to run MIDES, not so much on the basis of their technical credentials, but as part of a politically-driven distribution of responsibilities in the new administration, and perhaps in recognition of their commitment to fighting poverty. Their performance was not going to be just a test of the government's ability to deliver on its promises, but was expected to be carefully watched (by many who had supported the coalition, and Communist militants in particular) as an experiment in a new and different way of designing and running anti-poverty policies. The highest levels of MIDES expected their actions to prove that they were more concerned about the predicament of the poor, that they could be more effective and avoid the trappings of political patronage, and that they could achieve all that through strategies that departed from the conventional wisdom of recent decades, and from anything even remotely related to the "Washington Consensus."

Thus, the problem was not just to find a technically solid provider of technical assistance. They needed a provider that was politically legitimate in the eyes of their allies and, if possible, their opposition too. UdelaR was not typically seen as a completely neutral partner: informed voters and nearly all political elites knew that the majority of UdelaR's authorities and researchers – particularly in the social sciences – had long been more closely aligned with what was now the ruling coalition. In particular, IEcon researchers were known to be close to the Frente Amplio, and the Minister and Undersecretary were clearly aware of their political preferences. Even more, while internal animosities within the Frente are often as strong or stronger than between

[36] Based on views of various participants at IEcon's workshop.

[37] IEcon was not the only place where relevant research was being produced. For example, at the Catholic University, the Instituto de Investigación sobre Integración, Pobreza y Exclusión Social (IPES) had been producing potentially usable research, which actually played a non-negligible role in debates about, and the design of some of the social programs. However, it was unlikely that the IPES, being based at the Catholic University, would be considered a first choice for technical assistance, for reasons to be discussed shortly.

the Frente and other national parties, and although the IEcon could not be linked to the Communist Party, people close to the Minister could attest to the commitment of IEcon researchers to anti-poverty causes, and could thus recommend them as reliable partners.[38] As one participant in the IEcon workshop put it, "there was an expectation of reliability and commitment (to the goals of the incoming authorities), that was later confirmed in the process and through several testing situations." Moreover, the institutions (UdelaR as a whole and IEcon) were publicly funded and were formally independent from the government, making it easy to understand how MIDES could request their support without expecting to run into immediate objections from the opposition.

A related and not insignificant part of this story is that, for the new public authorities, relying on technical support provided by consultants hired by international donors/funders (namely the Inter-American Development Bank and the World Bank) was simply "not an option." These were seen as the drivers of precisely what the ruling coalition stood against. Meanwhile, the technical rigor of IEcon's work had already been recognized, and would later receive further endorsements from officers at several international organizations, including those providing financial support to implement social programs. This made the collaboration with IEcon acceptable to the funders, which is also an important element in development policy contexts.

One can only speculate about the extent to which the political preferences of IEcon researchers led to their choice of careers and their keen interest in poverty and inequality issues. One should also wonder about the factors that made that particular group at IEcon committed to expanding public and academic understanding of Uruguay's social realities while simultaneously striving to develop their analytical and empirical skills on an ongoing basis. (It can be noted that a commitment to assist the cause of the poor is not always paired with a commitment to high technical standards, as attested by much advocacy work on anti-poverty policies that is produced in developing countries.) In any case, there is a more complex story here about politics, technical rigor and recognition than is normally assumed and built into bridging frameworks.

First, the story shows that political and ideological allegiances matter. Politicians need to reassure supporters that they do not break promises once in office. Seeking legitimate advice (or

[38] The lead researchers at IEcon did not have strong political ties to the appointed Minister and Undersecretary, but top Ministry officials were able to use social networks to verify that they were "politically OK."

avoiding what might be seen as the wrong advice) plays a key role in that process. Researchers may in turn be prepared to support what they may consider as poorly planned efforts if they share basic political values. Knowledge users and providers must be assumed to pay attention (in a political or ideological sense) to whom they work with. Meanwhile, informal networks and weak ties may be powerful mechanisms to align interests and facilitate exchanges.

Second, a reputation for rigor and a commitment to certain political values is not built overnight, and other actors cannot be expected to take confidence in this reputation on short notice. Rather, it takes a serious amount of time to build such reputations. For researchers, this requires previous collaborations in smaller-scale efforts with people participating in various political networks, in order to become known and to establish trust. The capacities to respond to demands from MIDES with solid evidence also required previous deliberate efforts to balance a commitment to social equity with a willingness to face difficult questions head on, and in a spirit of respect for evidence. Developing such a background requires researchers to build their own international networks of like-minded and technically proficient partners. Such partners help them develop their own capacities and can provide support to help make it through periods of potential political isolation in the domestic scene. These all take a long time to develop, and could be roughly considered as some form of social capital built by and made available to researchers.

The situation can look similar from the other side of the policy-research relationship. The ability of politicians from the new administration to rely on qualified researchers who shared some of their values and worldviews was also possible because they were part of broader networks (including members of civil society organizations, union leaders, advisors, etc.) that were based on trust. While not everything is rosy in the relationship between politicians and university-trained experts in Uruguay, the left in particular had a tradition of cultivating relationships with domestic academics.[39] Also, unlike other countries in the region, politicians and political parties still command respect among the population, and Uruguay is relatively distant from the high levels of cynicism prevailing in the neighboring countries, which tends to drive experts away from the political process (UNDP, 2004; Latinobarómetro, 2009).

The bridging approach seems to recognize the importance of relationships, but is perhaps excessively optimistic about how rapidly the required social capital can be accumulated, or how

[39] Still, "trust" is not evenly distributed between various segments of the leftist political elites and various groups of the academic and expert communities.

what some would see as its payoffs can be replaced by more deliberate and faster action. For example, Young and Mendizabal (2009) argue that:

> Policy entrepreneurs need (…) skills to influence policy. They need to be political fixers, able to understand the politics and identify the key players. (…) They need to be good networkers to work effectively with all the other stakeholders, and they need to be good engineers, building a programme that pulls all of this together. Or they need to work in multidisciplinary teams with others who have these skills.

Their perspective seems to assume both (i) a greater social distance between those researchers and policymakers than seems to be the case in some development settings, and (ii) great confidence in the effect of matching up the right "skills." Greater distance between researchers and policymakers might better fit the circumstances in more densely populated and specialized policy systems (where a greater number of researchers would be competing for attention, and some may be unaware of the importance of cultivating personal relationships), or in environments where policymakers may not have a grasp on the many functions of research in policymaking (not just the "good" functions, but also the use of research to justify a politician's preset choices or to stave off donor pressures and public debate). In fact, in many developing and developed countries, politicians and officials are more likely to interact on a regular basis, and at least know each other through acquaintances, reputations, or the signals provided by institutional or political affiliations. It is not so much that such connections could give rise to advocacy coalitions (Sabatier, 1999) that see the world, the evidence and the policies similarly but is more so that, as illustrated by the MIDES-UdelaR collaboration, trust (and therefore social capital) plays a key role in the formation of research-policy partnerships that actually put rigorous and open-minded research to use in policymaking.

In other words, trust cannot be easily replaced by skills. If, as a bridging expert, one wants to expand the role of evidence in decision making and ensure that higher quality research is the research that is actually chosen to inform decisions, one might need to work to strengthen the technical capabilities of partisan researchers (regardless of whether they work in "independent" think tanks or other perhaps more visibly aligned organizations). Conversely, independent researchers, "ivory tower" academics and similarly non-partisan institutions may all need to be encouraged to build lasting trust with partisan political players, even when this carries some risk

of tarnishing their aura of independence. The reasons why such relationships are not necessarily bad for the quality of evidence are part of the discussion in the next section.

3. Beyond "bridging"

The role played by social capital, and trust in particular ("political trust"), highlights the fact that evidence and scientific analysis are always produced in a certain social context. Moreover, whether they like it or not, social scientists in developing and developed countries *are* political actors. (They can be more or less open about their ideological preferences, more or less active in partisan organizations, more or less respected by other political actors, and more or less influential, but they are political actors nevertheless.) The project to expand the use of evidence-based research in policymaking, and the tools that bridging experts design to maximize the chances that evidence-based research will ultimately be used, is a political project that involves amplifying the voices and influence of certain (political) actors and the promotion of certain political strategies to achieve its goal.

Actors from across the ideological spectrum can agree that the quality of policies might be improved by paying attention to research with certain properties. For example, the research should be: able to respond to key questions in the design or implementation of the policies; as robust as the data and current analytical methodologies allow it to be; and recognize it as robust after some form of peer scrutiny. However, a broad consensus could also be reached to acknowledge that policies should not necessarily be made by excellent researchers. Rather than assuming that the "right" responses to local development challenges will come from "independent" and technically respected organizations and individuals, those concerned with the quality of policies in developing countries should consider expanding their analytical frameworks and incorporate more realistic expectations about the complicated interplay between knowledge and politics. Three frameworks that conveniently complement each other to this end are briefly presented below.

Successful innovation systems

The first set of ideas comes from the study of successful innovation systems. Ultimately, applied policy research seeks to inform a social innovation process, i.e., a process of establishing new institutions or changing policy principles. Like innovations that generate products for the market, or social and economic innovations that might generate private benefits, successful public policies demand knowledge and creativity to rearrange resources, rules and practices. Since the early 1990s, authors such as Gibbons et al (1994) have been researching new modes of organizing knowledge production that characterize the most dynamic and creative knowledge-based industries and fields. Among the features that distinguish this mode of organizing knowledge from the one that prevailed during most of the 20th century, three are worth retaining for our purposes.

First, in the new mode, knowledge is mainly generated in the process of applying it to a particular problem, while developments within academic disciplines had previously provided guidance on which areas of knowledge to pursue. Second, the new mode is characterized by much greater accountability to various stakeholders and by greater awareness of the limits of scientifically generated knowledge and the impacts of this knowledge on society.[40] Third, the new mode of knowledge production involves new mechanisms of quality control and validation that are consistent with its problem-oriented nature. While peer review was the quintessential validation mechanism in the previous mode, the new mode has a wider set of criteria to judge quality, most prominently including the "usefulness" of the knowledge. While technical excellence is not excluded from the new validation criteria, the inclusion of other important criteria implies that its weight will be somewhat lower.

Thus, for example, Clark et al (2002) have examined the production of major environmental assessments commissioned by international bodies, and found that influential assessments (the exception more so than the rule) "are those that are simultaneously perceived by a broad array of

[40] Stem cell research provides a good example of all this. Stem cells can be the key to cures for many illnesses. Until recent years, research methods mainly focused on embryonic stem cells, and involve taking tissue from an aborted embryo. This elicited vehement opposition from anti-abortion groups, generated heated controversies about the promises and limits of science, and put public funding for research under threat. Interestingly, many scientists responded to this social controversy by developing methods that do not require the use of embryos. The discovery of some of such methods (which may not be neutral regarding future trajectories of the sciences) vividly illustrates how research paths are shaped by stakeholders' concerns on the frontiers of "applied science" (see NYT, 2005; NYT, 2010).

actors to possess three attributes: saliency, credibility, and legitimacy" (p. 7). The connection with the literature on innovation systems is direct: saliency points to the problem-oriented nature of knowledge; credibility – "whether an actor perceives the assessment's arguments to meet standards of scientific plausibility and technical adequacy" – refers to scientific merit; and legitimacy –"whether an actor perceives the assessment as unbiased and meeting standards of political fairness" – highlights that scientific merit is not enough on its own (quotes from p.7).[41]

Epistemology and social studies of science

While the research on new modes of organization of science is largely based on empirical work on innovation systems, its findings are – perhaps unsurprisingly – fairly in line with contemporary reflection on the sources of quality research. In fact, conventional epistemology would look to the scientific method for clues on what makes scientific knowledge apparently superior to other forms of knowledge and the reasons for the widespread confidence in its applications. Decades (and centuries) of systematic philosophical reflection on the powers and limits of the scientific method have shown that there is little hope of finding generally accepted answers. Some fundamental problems in the foundations of the scientific method (e.g., the issues relating to induction, key challenges of establishing evidence-based theories, or the inevitability of value judgments by scientists) remain unsolved, and seem likely to stay that way (Putnam, 2002; Hands, 2001; Collins and Pinch, 1993).

This was behind early moves to naturalize the scientific enterprise and look at it using tools from the social sciences (Hands, 2001), and has led many scholars to examine the social processes and non-methodological considerations that settle, or more often channel, knowledge disputes in scientific communities rather than focusing on the logic of scientific enquiry. From this perspective, objectivity does not need to reflect the ethos of a particular scientist or features of the scientific method itself. Rather, it can be seen as the collective outcome of interactions among less-than-perfectly-objective actors in the scientific process.[42]

[41] More specifically, some assessments that have been highly stringent in deciding who has the right to participate, on the basis of the standard indicators of scientific competence, have failed to be influential, probably because they have been perceived as politically illegitimate (Cash and Clark, 2001).

[42] Professional ethics and concrete aspects of the methodologies surrounding any scientific inquiry do play a role, but scientific methods are not capable of completely resolving disputes, and scientists' values are not unproblematic (Hands, 2001).

Generally speaking, this all implies that even scholars must look beyond purely technical merit to evaluate applied research, because quality and robustness are not always easy to define. Anyone familiar with empirical research in the social sciences will recognize that sensible analysts regularly disagree about the quality of each other's work. This is the case even when setting aside important discussions on whether a given study addresses the right questions, or whether it is based on sound theories (assuming that observers do not disagree or can suspend judgment on these matters). The deep and unsolved epistemological problems determine that – when choosing among theories, when deciding what evidence to trust – scientists must inevitably (and more or less openly) resort to value laden criteria (e.g., realisticness, simplicity and plausibility) to channel their controversies (Putnam, 2002). Recognizing this fact does not need to lead to scientific nihilism, but may instead demystify the independence (another value laden concept) of research and promote more self-conscious, humble, but still useful science (see Hands, 2001; Collins and Pinch, 1993).

If that is true within professional communities, one must expect non-experts to rely even more heavily on clues about the quality of research outputs. Those clues are likely to refer to the authors' capabilities more so than to the nature of their work, as well as factors such as where the researchers acquired their formal training, their reputation among their peers, or whether they can effectively communicate what they have to say about a policy dilemma. This complex process of quality assessment is not acknowledged by bridging experts, and their contributions sometimes even seem to assume that the quality of research can be unambiguously discerned by research users.

The intelligence of democracy

Let us turn now to the third body of ideas that could complement the bridging approach. The bridging literature tends to be surprisingly silent on how amplifying the voice of experts and the weight of evidence in policymaking can be connected to the nature of the political regimes within which these efforts take place. It is not that bridging experts are unaware of variations in political contexts or the need to develop a sophisticated understanding of these if one wants to influence their decisions (Nash et al, 2006). Rather, their silence is striking and even problematic, given the desirability of influencing regimes to become more open, participatory

and ultimately democratic. Put differently, it is an uncomfortable truth that many bridging prescriptions would see nothing wrong in, e.g., the ideological takeover of the Pinochet regime by Chicago school economists in the 1970s and 1980s. Other approaches that are more explicit about the role of knowledge in democracies would not be caught in that uncomfortable position.

Democracy has been regarded as a complex concept but generally describes a set of political arrangements that are, by some accounts, better equipped to correct misguided policies, and are therefore desirable even if one suspends some fundamental ethical judgments (Sen, 2000; Rodrik, 2000; Unger, 1999). In this regard, Charles Lindblom's contributions through his intellectual career (and in particular the most recent edition of The Policy-Making Process, Lindblom and Woodhouse, 1993) have illuminated the mechanisms that account for the superiority of democratic policymaking over technocratic and elitist policymaking alternatives. Many of his ideas can be seen to have been rescued and promoted by more recent analysts of the policy process.[43]

Lindblom has tackled some of the more fundamental questions head on. In particular, he has taken up the issue of whether rigorous and systematic "analysis" can ever be expected to provide a preferable road for socioeconomic progress than participatory policymaking (Lindblom and Woodhouse, 1993, chapter 2). The well-substantiated answer is an emphatic no. The argument is partly built on an understanding of the irreducible incompleteness and fallibility of scientific knowledge which such analysis would ideally be based on. Scientific responses to policy-relevant questions must only be taken as established to a certain degree of confidence, and they will normally include just a fraction of the questions surrounding a salient issue.[44] While in principle more research could help answer more questions, adequately enriching the decision makers' knowledge base may require a disproportionate amount of resources.[45] A further limitation of analysis is that there is not normally any peaceful consensus identifying the fundamental problem that policies must address, and therefore what needs to be analyzed. In

[43] See, for example, Kingdon (1995) and Sabatier and Jenkins-Smith (1999).

[44] To illustrate the typical incompleteness of scientific knowledge to assist societies at critical policy crossroads, Lindblom and Woodhouse argue that, at the time of their writing, "the formerly communist nations (were) merely copying western-style political and economic systems instead of taking advantage of the social flexibility in eastern Europe to try out new political and economic arrangements… Part of the reason (was) that European and American social scientists had not developed sufficiently detailed and helpful alternatives." (p. 16)

[45] Lindblom has also been among those who questioned the value of studying the policy-making process as a sequence of distinct and logically sequenced steps, from the emergence of a problem through to problem analysis, policy formulation, decision making, implementation and evaluation.

general, in complex self-referential systems, such as human societies, there is no single way to formulate or rank problems that is strictly analytically correct. This limitation of analysis is connected to (but distinct from) a third one. In most of the relevant policy situations, there will inevitably be conflicts of values in the absence of an analytical solution to resolve them. Even if they could agree on the analysis, stakeholders in the process will likely disagree on the ranking of solutions to non-trivial problems because they are affected differently by them. Decades of research in social choice theory have only produced partial responses to this fundamental problem, none of which have become broadly accepted.[46]

Yet, the fact that analysis has limits does not in itself demonstrate the superiority of democratic policymaking. A closer look at how democratic policymaking operates is required to demonstrate the "intelligence of democracy," a tall order indeed, given the apparent folly of many choices made by respectably democratic societies and governments. In Lindblom and Woodhouse's view, the intelligence of democracy resides in it promotion of agreement rather than some elusive shared understanding. If an intelligent political process is one that accounts for the concerns of sizeable groups of a society (i.e., is "responsive"), that sensibly manages the usual tradeoffs in seeking multiple goals and that makes best use of available information, then democracies can be said to achieve intelligent policymaking, at least more frequently than non-democratic regimes (p. 25).

The key to intelligent decision making by democracies is the interaction among political participants that do not share a dominant common purpose (perhaps in addition to their commitment to playing by the rules of the democratic game). In democratic policymaking, "there is never a point at which the thinking, research, and action is 'objective', or 'unbiased'. It is partisan through and through, as are all human activities" (pp. 31-32). On closer scrutiny, interactions between partisan participants in fact produce a form of "strategic analysis" through distributed processing of information and the inducement to agree. Democratic policymaking also allows societies to simplify and "solve" complex problems through incremental analysis, by focusing on issues to be remedied and on a limited number of policy options, and by proceeding through trial and error (pp. 29-30). Accepting these facts does not require endorsing every decision made by democratically elected officials, turning a blind eye to hideous choices made by democratic regimes, or even assuming that some index of "democraticness" would exhibit a

[46] The classic in this literature is Arrow (1951). Also see Sen (1986).

high correlation to positive socio-economic outcomes. Democracies can be more or less "intelligent" depending on the specific political arrangements and depending on links between expert knowledge and decision making.

4. Concluding remarks

We have briefly presented three streams of research and reflection that could shed new light on the research-to-policy nexus. They highlight the experience of collaboration between MIDES and the IEcon of UdelaR. IEcon researchers were doubtlessly engaged in salient research when called upon to support the MIDES. Key players recall that an interactive process was used to identify which evidence-informed solutions to the dilemmas facing the MIDES were acceptable. As shown in other chapters of this volume, technically "ideal" solutions had to be negotiated in consideration of political and bureaucratic demands that may have been based on a casual glance at the evidence rather than on thorough analysis of the options. These negotiations determined, for example, the number and coverage of regions for the purpose of applying (technically desirable) region-specific targeting algorithms, or the weights of specific dimensions in the algorithm. The outputs could be seen as commanding scientific respect as well as being politically legitimate. The success of the partnership rested on the combination of strong technical foundations and willingness to engage in a two-way dialogue. In the end, the implemented solutions were only partially informed by rigorous research, but were useful, credible and legitimate responses to "messy" design and implementation situations.

If social capital made the partnerships viable, seeking some form of apparent ideological neutrality of researchers may be a misguided approach to strengthening policies. Instead, efforts could be directed to ensuring that there is more than one informed voice, and that more partisan players are willing to respect evidence and serious scientific analysis. Besides enriching the quality of available knowledge by encouraging a competition of ideas, this would carry an externality of promoting political competition as well. But democratic decision making may need to be promoted more directly and openly as a workable, realistic and effective social choice algorithm. More research on how different configurations of knowledge and political institutions impact the nature of choices made, and the quality of policies, could help us understand how to improve the quality of public democratic debate.

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