Case RDD:
"Government Transfers and Political Support" by M. Manacorda, E. Miguel and A. Vigorito

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1. Motivation

- The paper analyzes the effect of a large anti-poverty program, the Uruguayan "Plan de Atencion Nacional a la Emergencia Social" (PANES), on expressed support for the government

- It exploits quasi-random assignment of applicants to the program based on a sharp discontinuity in a predicted income score

- Why this matters?
  - ▶ Understanding whether voters respond to policy outcomes is critical for theories about democracy
  - ▶ Existing empirical work suffers obvious econometric problems
  - ▶ Little is known about the effect of households specific economic circumstances, in particular targeted government transfers, on voter's choices

2. The Program

- PANES was launched in April 2005 with the goal of providing assistance to households that had experienced a rapid fall in living standards since the onset of the 2001-2002 crisis
- Components:
  - Citizen's income: About 70US$ (50% of average self-reported income)
  - Food card for households with children or pregnant women
- Eligibility:
  - Initial enrollment phase: about 190,000 applicant households were visited by the Ministry of Social Development (baseline survey)
  - Program assignment was defined using a predicted income score that depended only on household socioeconomic characteristics collected at baseline (Probit model of the likelihood of being below a critical income level)
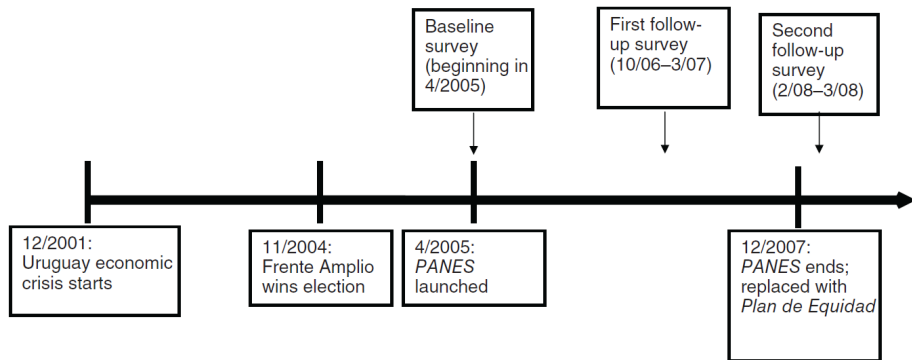- Sample: 2,232 households

Timeline

FIGURE 1. PANES PROGRAM AND DATA COLLECTION TIMELINE
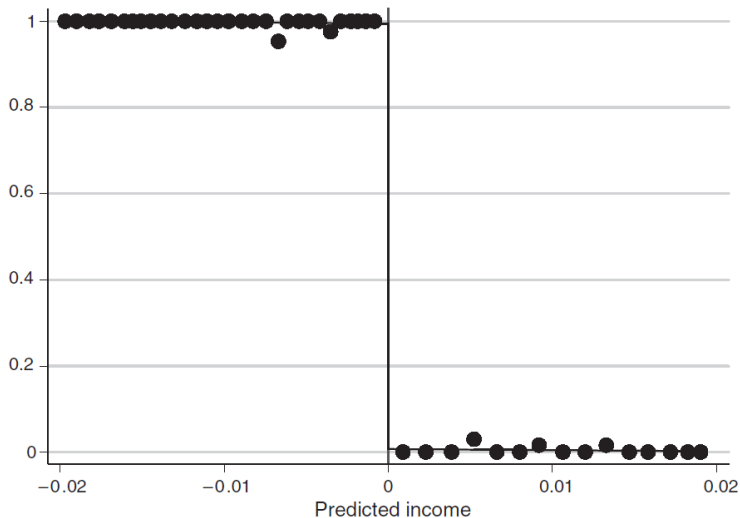
PANES participation

FIGURE 2. PANES PROGRAM ELIGIBILITY AND PARTICIPATION

3. Results

- As it is typical in RDD designs, graphical results provide a "credible" way to present results (see next figure)
- Results need to be complemented with a regression analysis. The authors run the following specification:

$$y_i = \beta_0 + \beta_1 1(N_i < 0) + f_1(N_i) + 1(N_i < 0)f_2(N_i) + u_i \qquad (1)$$

- The coefficient of interest is β_1 (the change in y at the eligibility threshold)

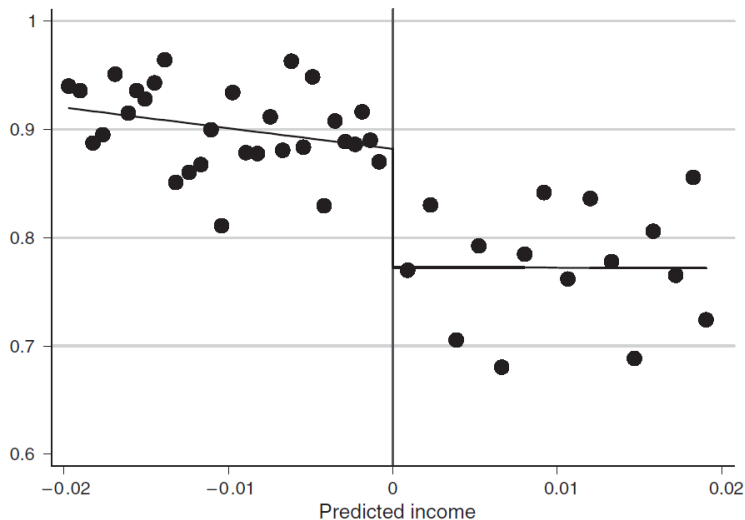# Program eligibility and political support during the program

FIGURE 3. PANES PROGRAM ELIGIBILITY AND POLITICAL SUPPORT FOR THE GOVERNMENT, 2007 FOLLOW-UP SURVEY ROUND

Regression results

TABLE 1—PANES PROGRAM ELIGIBILITY, PARTICIPATION, AND POLITICAL SUPPORT FOR THE GOVERNMENT

Dependent variable	Mean non-eligibles	Coefficient (standard error)						Observations
		(1)	(2)	(3)	(4)	(5)	(6)	
1. Ever received PANES, 2005–2007	0.004	0.993*** (0.002)	0.987*** (0.005)	0.995*** (0.005)	0.993*** (0.003)	0.988*** (0.005)	0.998*** (0.005)	2,232
2. Government support, 2007 (during program)	0.77	0.129*** (0.013)	0.110*** (0.026)	0.130*** (0.040)	0.126*** (0.014)	0.103*** (0.027)	0.125*** (0.043)	2,089
3. Government support, 2008 (post-program)	0.73	0.118*** (0.030)	0.100*** (0.043)	0.093** (0.016)	0.119*** (0.031)	0.096*** (0.045)	0.081* (0.045)	1,948
Score controls		None	Linear	Quadratic	None	Linear	Quadratic	
Other controls		No	No	No	Yes	Yes	Yes	

Notes: The table reports estimates of the effect of PANES eligibility on program receipt (row 1) and political support in 2007 and 2008 (rows 2 and 3, respectively). Eligibility is an indicator for a household score below the eligibility threshold. Columns 1–3 include, in order, a polynomial in the standardized score of degree 0, 1, and 2, and these polynomials interacted with the eligibility indicator. Columns 4–6 additionally control for pretreatment characteristics of household members, log per-capita income, age, education, and gender of the household head, *localidad* indicators, and separate indicators for missing values of each of these variables. Standard errors clustered by score are in parentheses. Standard errors are almost identical (differing by roughly 1 percent) with the jackknife approach in Justin McCrary (2008b).

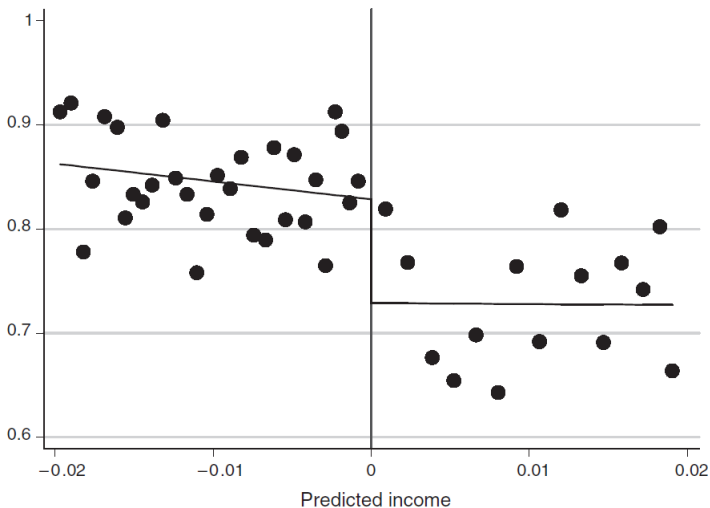# Program eligibility and political support after the program

FIGURE 4. PANES PROGRAM ELIGIBILITY AND POLITICAL SUPPORT FOR THE GOVERNMENT, 2008 FOLLOW-UP SURVEY ROUND

4. Potential threats

- Assigment to PANES somehow favored households with higher underlying support for Frente Amplio $\rightarrow$ No baseline data on political attitudes is available
  - ▶ If there is manipulation, then pre-treatment characteristics should vary discontinuously at the eligibility threshold (see Table II and Figure A1)
  - ▶ McCrary(2008) test to check manipulation
- Another concern is that non-response could be systematically related to program eligibility
  - ▶ Non-respondents were replaced with households with similar predicted score
  - ▶ They check whether non-response is related to PANES eligibility (rows 8-9 Table 2)

TABLE 2—PROGRAM ELIGIBILITY, BASELINE CHARACTERISTICS AND RESPONSE RATES IN 2005 (*Pre-Program*)

Dependent variable	Mean noneligibles	Coefficient (standard error)	Observations
1. Log per capita income	6.34	−0.062 (0.059)	2,150
2. Household average years of education (among those 16 years and older)	4.05	0.135 (0.198)	2,162
3. Household size	3.03	−0.350 (0.242)	2,232
4. Household average age	31.68	−1.195 (2.159)	2,232
5. Respondent is female	0.70	−0.025 (0.057)	2,231
6. Respondent years of education	6.43	0.228 (0.307)	2,206
7. Respondent age	43.63	−0.929 (1.512)	2,231
8. Nonresponse/missing response on political support question (2007)	0.41	0.037 (0.044)	2,372
9. Nonresponse/missing response on political support question (2008)	0.46	0.049 (0.048)	2,372
10. Voted in 2004 elections	0.92	0.013 (0.023)	2,200

Notes: The table reports results from regressions of various pretreatment (2005) characteristics on the program eligibility indicator. The specification is the same as the one in column 2 in Table 1. See also notes to Table 1

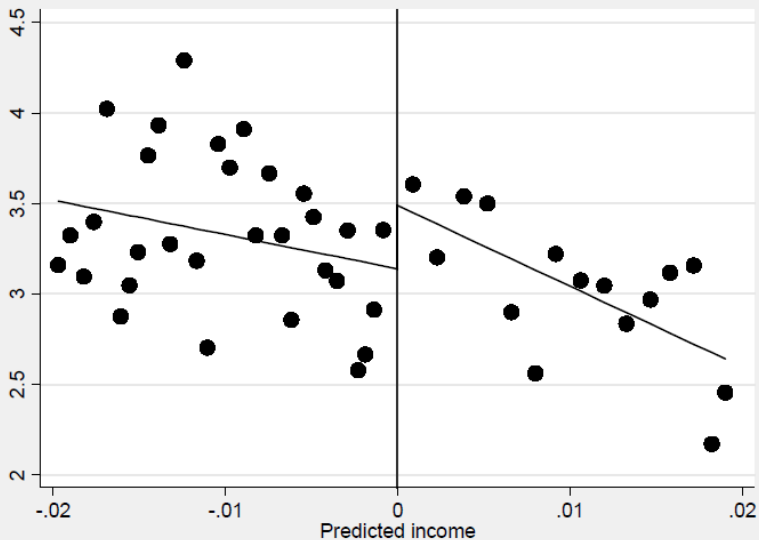## Panel A: Log per-capita income
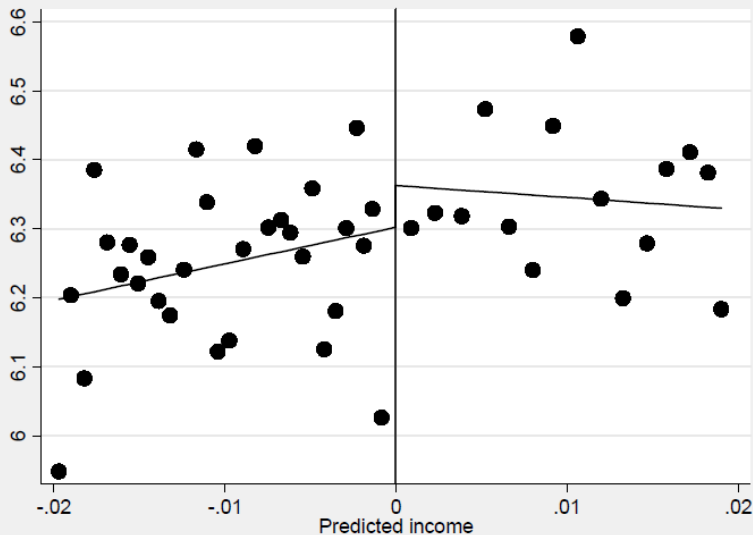
Panel B: Household average years of education
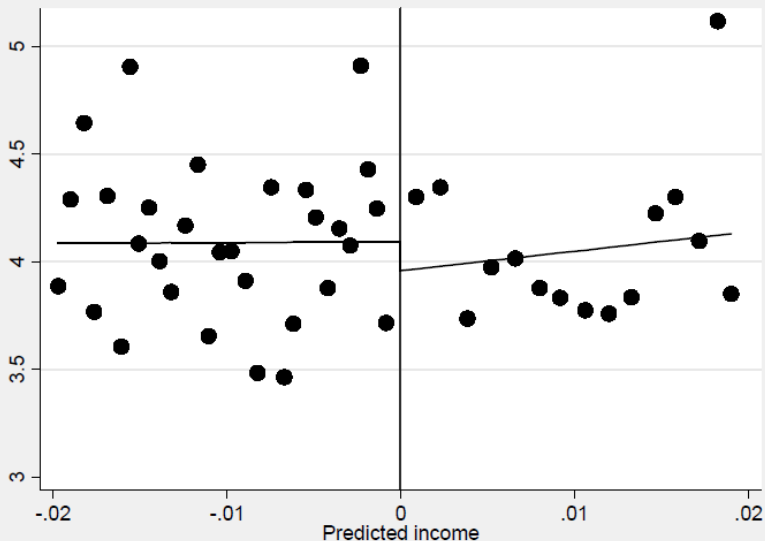
Panel C: Household size

Panel D: Household average age
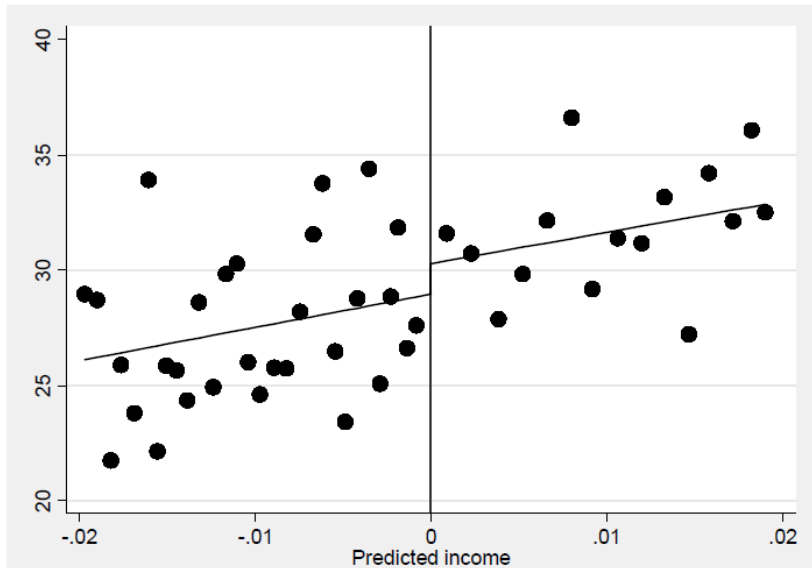
Panel E: Respondent is female
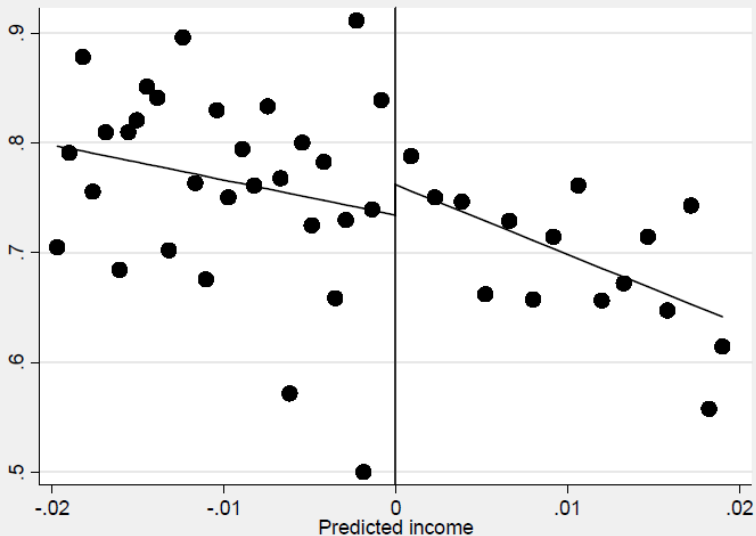
Panel F: Respondent years of education
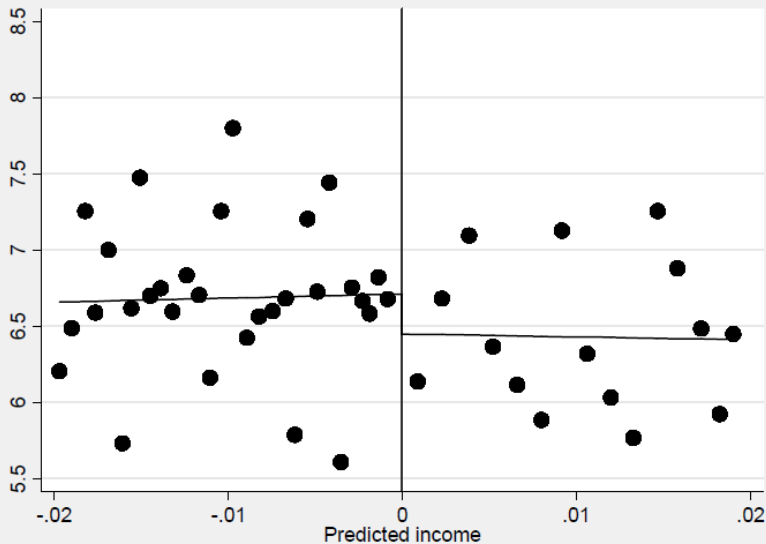
McCrary (2008) test
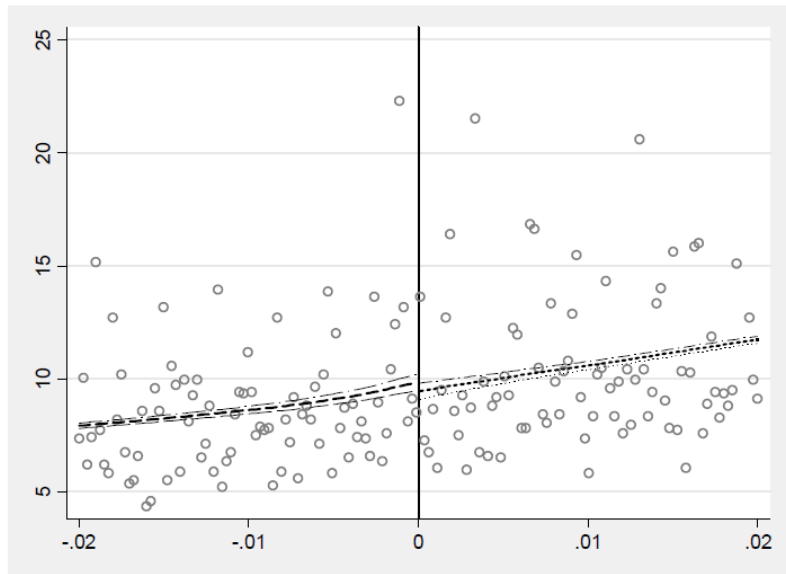
5. Explaining results

- What are the channels that explain political support?
  - ▶ Improvements in living standards
  - ▶ Persistent impacts of transfers on income and household wealth
  - ▶ Rational but poorly informed voters (past policies affect voters' current political support by shaping expectations about future transfers)

TABLE 3—PROGRAM ELIGIBILITY, INCOME, AND VIEW ON PANES IN 2007 (*During the program*)

Dependent variable:	Mean noneligibles	Coefficient (standard error)	Observation
1. Log household per capita income	6.87	0.216*** (0.071)	2,031
2. Satisfaction with household situation	0.43	0.073*** (0.021)	2,079
PANES mistargeting:			
3. There are people who received PANES who should not have	0.91	−0.068** (0.030)	1,997
4. There are people who did not receive PANES who should have	0.98	−0.048*** (0.016)	2,024
5. Beneficiaries should have received less so that more people could benefit	0.87	−0.087*** (0.033)	2,024

Notes: The table reports results from regressions of various outcomes and survey responses on the program eligibility indicator. The specification is the same as the one in column 5 in Table 1. See also notes to Table 1.

*** Significant at the 1 percent level.
** Significant at the 5 percent level.
* Significant at the 10 percent level.

TABLE 4—PROGRAM ELIGIBILITY, INCOME, PARTICIPATION IN OTHER PROGRAM, AND
POLITICAL AND SOCIAL ATTITUDES IN 2008 (*Post-Program*)

Dependent variable	Mean noneligibles	Coefficient (standard error)	Observatio...
1. Log household per capita income	7.12	−0.070 (0.067)	1,903
2. Durables	0.25	0.016 (0.013)	1,948
3. Received *Plan de Equidad*	0.34	−0.060 (0.041)	1,948
4. Received food card	0.04	0.141*** (0.032)	1,945
Positive opinion about:			
5. PANES	0.58	0.253*** (0.026)	1,916
6. *Plan de Equidad*	0.70	0.054** (0.024)	1,256
7. Relative to last year, are social differences greater?	0.51	−0.112*** (0.041)	1,729

Confidence in the:			
10. Ministry of Social Development	0.39	0.185*** (0.038)	1,73
11. President	0.37	0.091** (0.040)	1,85
12. Political parties	0.12	0.035 (0.028)	1,80
13. Social Security administration	0.47	0.022 (0.036)	1,81
14. Local councils	0.30	0.027 (0.036)	1,77
15. Parliament	0.21	0.017 (0.037)	1,37
16. National pride	0.79	0.049** (0.024)	1,90
17. Interest in politics	0.20	0.065** (0.031)	1,93
18. Believes that hard work pays off in life	0.35	0.022 (0.025)	1,91