

Cash and Ballots: Conditional Transfers, Political Participation and Voting Behavior*

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January 24, 2018

JEL Classification: O10, D72, P16.

Keywords: Conditional cash transfers, voting behavior, women, political participation, Colombia.

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Abstract

We estimate the effect of participation in a large anti-poverty program in Colombia on turnout and electoral choice. For identification, we use variation in the proportion of beneficiaries across voting booths within a polling station, and use eligibility as an instrument for take-up. We find that in the 2010 presidential elections, women who were enrolled in the program were more likely to cast a ballot and to support the incumbent party candidate under which the program was expanded. The effects for men are also positive, but about half of the magnitude estimated for women and not always significant. Our results show that voters respond to targeted transfers, that these transfers can foster support for incumbents, and that women, as being designated the direct recipients of the transfers, respond more strongly than other household members. Suggestive evidence indicates that the mechanisms through which our results occur are by increasing civic engagement and by rewarding, without coercion, the incumbent party for expanding the program.

1 Introduction

Conditional Cash Transfers (CCTs) are a prominent poverty reduction and social protection tool in many developing countries.¹ Impact evaluations of these programs show that among other outcomes they improve household consumption, school enrollment and attendance, health and nutrition (World Bank 2011). Emerging literature also reveals that CCTs influence household behavior in other ways including political preferences. This paper shows that a large-scale Colombian CCT program, *Familias en Acción* (FA), increased political participation and support for the incumbent party candidate among recipients of the cash transfer.

CCTs can influence political preferences and participation in desirable ways by increasing civic engagement. They often involve regular meetings at the community level between beneficiaries and state actors, which are designed to inform participants about their rights and responsibilities in the program and provide advice on good health, prenatal care and nutrition practices. These regular interactions can foster trust in the state, which in turn can lead to participation in elections and the policy-making process more broadly. Citizens freely reward or punish incumbent governments with their votes, irrespective of whether the social transfers are part of programmatic policies or discretionary government spending (Imai, King and Velasco Rivera 2017). Knowledge of past and present program receipt can be used by voters as a signal of politicians' effort, ability or redistribution preferences (Manacorda, Miguel and Vogorito 2011). CCTs may also influence political preferences in undesirable ways by political patronage. Specifically they can produce electoral rewards for the party or individuals that implement these programs

¹CCTs provide cash payments and sometimes in-kind transfers to low-income families in exchange for regular school attendance, health clinic visits, and nutrition support. Nearly 70 countries spanning several regions of the world have implemented welfare programs of this nature in the last 15 years (World Bank 2011).

by targeting benefits to specific villages and individuals in exchange for their votes.

Results from recent research papers are mixed. De la O (2013) using municipality level data of Mexico's CCT *Progresa* (later renamed *Oportunidades* and more recently *Prospera*) found that turnout and incumbent vote share in the 2000 presidential elections increased in villages that were randomly assigned to receive the program. Recent work, however, shows that these effects vanish after mismatches in village names between population and electoral records are addressed (Imai et al. 2017). Looking at local electoral effects of the same program, Rodriguez-Chamussy (2015) shows an increase in the share of votes for local incumbents when coverage increases during the year before the election. Galiani et al. (2017) show that not only the amount but also the timing of payments matters as transfers closer to election day had larger effects on turnout and incumbent party share in the 2013 presidential elections in Honduras. Similarly, Labonne (2013), finds that local incumbents in the Philippines reap electoral rewards in municipalities that had considerable CCT coverage and a competitive political environment. A randomly allocated CCT program in Indonesia—that disburses transfers to communities rather than households—was found to increase vote shares for legislative candidates from the incumbent president's party in the 2009 election, but neither raised support for the incumbent President nor increased turnout (Tobias, Sudarno and Moody 2014). Using individual-level self-reported survey data and non-experimental variation in program assignment, Manacorda et al. (2011) find that beneficiaries of PANES—a large and temporary unconditional cash transfer program in Uruguay—express larger support for the incumbent that implemented the program.

Disentangling the relation between social policies and political participation and preferences requires an exogenous source of variation in transfer receipt and detailed data

on voting behavior. Social programs are typically allocated based on welfare status (impoverished regions or individuals) or strategically (regions where the incumbent seeks to strengthen political power or regions where the incumbent is strong). Additionally, the take up of these programs could be correlated with people’s voting behavior or other factors underlying their political choices. Comparisons that do not consider how social programs are allocated and adopted can be biased. Furthermore, votes are secret, limiting the availability of disaggregated voting data. For these reasons, data for studies of political preferences and choices are almost always either compiled from surveys with self-reported and possibly biased information, or from administrative voting records at higher levels of aggregation at the municipal or precinct levels.

This paper examines the effects of *Familias en Acción* (FA) on political participation and support for the incumbent party candidate in Colombia’s 2010 presidential election. For identification, we exploit exogenous variation in program eligibility and enrollment across voting booths. Contrary to previous studies that use municipal or precinct level voting data (Nupia 2011), our data on voter’s behavior is at the voting booth level, the smallest possible unit of disaggregation. Reporting bias is controlled by not using self-reported data. While people can choose their polling station, they are assigned to voting booths based on their national identity card number, a decision out of the individual’s control.² This assignment allows us to address concerns about aggregation or ecological bias that could arise in cases where within-group correlations across individuals are likely. Furthermore, by using program eligibility as an instrument for enrollment we can address selection concerns due to non-random take-up of the program.

Our main results show positive effects of participation in FA on voting turnout and

²Each municipality has polling stations, and each polling station is comprised of voting booths where on election day, if registered, voters are consecutively assigned to booths based on their national identity card number.

political preferences towards the incumbent, especially among women. Results from the instrumental variable strategy indicate that an increase of 10 percentage points (pp) in the proportion of FA beneficiaries at each voting booth translates into a 1.5 pp (2.4% of the mean) increase in the likelihood of women casting a ballot. The effects for men in households that received FA are also positive but statistically smaller in magnitude than those for women, a .79 pp (1.3% of the mean) increase with a 10 pp in the proportion of FA male beneficiaries at each voting booth. Women also show an increase of 2.3% of the mean in support for the incumbent party candidate and an increase of 5.7% of the mean in the margin of victory. Whereas the results for men go in the same direction (1.45% in support of the incumbent), but they are not always statistically significant.

The data available do not allow us to directly unpack the mechanisms behind these results. However, we test for suggestive evidence to explain what factors could be driving the increased turnout shown by FA recipients. Specifically, to see if civic engagement, gratitude toward the incumbent party, or political patronage is driving the results, we first use data from the legislative elections of March 2010. This legislative election was held to elect 102 and 166 members to both chambers of Congress, the Senate and the House of Representatives, respectively. Given that FA was enacted and implemented at the central government level and that Congress does not make direct decisions concerning FA, we argue that voters associated the incumbent president's party with FA, rather than the other 2,481 candidates that competed in these legislative elections. Results for the legislative elections are consistent with those of the presidential elections, indicating increased turnout for both female and male FA recipients. These results are consistent with civic engagement and gratitude toward the incumbent party being important mechanisms. In an alternative model, we compare the outcomes of current vs. former FA

recipients. The results for former FA recipients also show increased turnout, relative to non-FA recipients. Although we cannot rule-out patronage, we do not expect it to increase former FA beneficiaries' desire to vote.

We add to the emerging literature on the impact of social programs in developing countries, in particular, the effect of CCTs on political participation and voters' preferences. To our knowledge, in this context, we are the first to use administrative data at the most disaggregated level possible, the voting booth level. This information is actual and not self-reported voters' behavior and preferences, thus allowing us to control for a common source of bias. Consistent with recent work by Akresh, de Walque and Kazianga (2016) examining if there is a differential effect of the transfer depending on who receives it, this paper provides support for the view that regarding voting behavior, it does matter who in the household receives the transfer. The program rules established the mothers as the direct recipients of the cash transfers (unless she is missing in the household), and our results are stronger among women. Lastly, we find some suggestive evidence that FA is affecting voting participation by increasing civic engagement and by rewarding, without coercion, the incumbent party for expanding the program.

The rest of the paper is structured as follows. The next section provides background information on the Colombian electoral system and the FA program. Section 3 describes the data sets used in the analysis. Section 4 describes the identification strategy. Section 5 presents the empirical results, including a discussion of possible mechanisms. Section 6 provides robustness checks with alternative specifications and controls. Section 7 concludes.

2 Background

2.1 Electoral System and Political Context

Elections in Colombia—including the presidential election—are organized by the National Registry Office (RN—its acronym for *Registraduría Nacional* in Spanish). This institution is also responsible for the civil registry and identification of people. The RN updates the official voter registry before every election. The right to vote is granted to all Colombians 18 years and older that hold national identity cards (known as *cédula*).³ The RN determines when people can register to vote, usually a two-week period extensively advertised in the media during the six months before the elections. A person can register at any polling station, but is only allowed to vote in the last polling station where she registered. Typically polling stations are scattered throughout a municipality (8.6 on average, s.d.=17.7), and each polling station has several voting booths (7 on average, s.d.=12.8). Elections are held on Sundays, so most people register at a polling station near their residence. Once registered in a specific polling station, citizens are assigned on election day to a voting booth within the polling station by the IT systems of the RN based on the number of their national identity card.

Assignment to a voting booth is done in consecutive order based on the *cédula* number, which must be shown to vote. Before 2003, *Cédula* numbers were assigned consecutively in each municipality by sex on a first come first serve basis. This assignment determined the numbering of *cédulas* issued to the cohorts of voters included in our sample. In our analysis, we use this allocation of people across booths and within a polling station as a source of exogenous variation for the proportion of people with FA in a voting booth.

³A *cédula* is an official identity card with ubiquitous use. Colombian citizens obtain it when they turn 18.

Since the assignment of *cédulas* is based on sex and age, in all regressions we control for sex, and the median and standard deviation of age at each booth. For the 2010 presidential elections, registered voters could cast their vote for a candidate in roughly 10,000 polling stations scattered in 1,119 municipalities across the country.

In the last decade, the political landscape has been dominated by the party that expanded the FA program. Even though it was initially conceived and designed in 2001 under the government of the Conservative Party, FA became the flagship public anti-poverty strategy of the *Partido de la U* during the two terms of President Alvaro Uribe (2002-2006 and 2006-2010), reaching almost national coverage. Juan M. Santos, the former Defense Minister in Uribe's second term and also at that time affiliated to his political party, became the candidate in the 2010 presidential election. This election was held in two rounds since no candidate received an outright majority of votes in the first round. Santos achieved a landslide victory in the runoff with 69 percent of the votes.

2.2 The *Familias en Acción* Program

Colombia experienced a severe economic downturn during the late 1990s that led to an increase in poverty and a deterioration of several social indicators. One of the government's responses to mitigate the effects of the crisis on the poor was to launch a social transfer program in 2001 inspired by the successful scheme applied in Mexico, the widely known *Progresa/Oportunidades/Próspera*. At the time of the 2010 presidential election, the Colombian FA program offered bimonthly cash transfers —ranging from approximately US \$8 to US \$16 per school age child and nutrition packages of approximately US \$28 for children below age 7— contingent upon school attendance of the beneficiary children and regular participation in growth monitoring sessions, respectively. The FA program

at the time was relatively generous when compared to interventions implemented in other countries. Fiszbein et al. (2009) report a comparison table showing the size of transfers in 13 countries as a percent of per capita expenditures of the median household ranging from 0.6% in Bangladesh to 27% for a pilot program in Nicaragua. Citing Attanasio et al. (2005), the FA program on average accounted for 17% of per capita expenditures, similar to the share reported for Mexico's *Oportunidades* (20%) and Nicaragua's *Atención a Crisis* (18%).

In addition to having children in the relevant ages⁴, households are offered the program based on their poverty index score in a proxy means test system known as *SISBEN*.⁵ The *SISBEN* poverty index score is constructed with information from a registry of the poor. This registry, through household level interviews, collects information on households' demographics, durable goods, housing characteristics, human capital, labor force participation, income, and access to basic services. The poverty index score is calculated with an algorithm that weighs several variables to predict household welfare. The score ranges from 0 for the poorest to 100 for the less poor households. During the period of analysis, the distribution of the score is divided into six brackets. Households assigned to the lowest bracket (*SISBEN* level 1) are deemed eligible to benefit from the FA program.

The program was initially piloted in 22 municipalities in 2001 and has been continuously expanding since then. The first major expansion took place in the second half of 2002, targeting initially 600 municipalities with fewer than 100,000 inhabitants amongst

⁴Children ages 0 to 7 for the health and nutrition package and children 7 to 18 in elementary and middle school for the education package.

⁵*SISBEN* stands for System of Beneficiary Selection, in Spanish. The data used in this paper corresponds to the *SISBEN II*, and throughout the paper we refer to it as the *SISBEN* dataset. The *SISBEN II* was the second version of the *SISBEN*, which started after 2003, using a different questionnaire, algorithm, and threshold from the first *SISBEN* conducted prior to 2003, and for which Camacho and Conover (2011) documented manipulation. To our knowledge, no manipulation has been documented for *SISBEN II*.

other conditions.⁶ In 2005, the program was extended to include families forcibly displaced by the armed conflict in rural areas and municipalities which either became able to offer the required education and health services or with services accessible in nearby towns. In 2007, the program was further expanded to large urban centers and municipalities not covered before. By 2010 the program reached almost national coverage, benefiting nearly 2.3 million households in 1,093 municipalities (Acción Social, 2010; Attanasio et al., 2010).

3 Data

This paper uses four administrative datasets to identify the effects of FA on voting behavior: (1) the 2010 electoral census from the National Registry Office⁷; (2) the FA's management information system of beneficiaries (*SIFA*); (3) the *SISBEN*; and (4) the 2010 electoral results at the booth level. We describe how each of them is used and how the three are merged to obtain a working dataset.

The first dataset, the electoral census, has information on the most recent date of registration and voting place (municipality, polling station and voting booth) for all adults who were registered to vote in the 2010 presidential election. There are nearly 30 million people on this roster.⁸ The second dataset, *SIFA*, is used by the national agency that runs FA for administrative and monitoring purposes. It is a longitudinal census of program beneficiaries, and it contains information on all families who at the time of the election were current or former participants in the program. We exclude minors

⁶Municipalities could not be departmental capitals, had to have at least one bank branch in the municipality (to deliver the transfers), and access to education and health facilities that allowed for the implementation of the program.

⁷To have access to booth level data we purchased a CD from the National Registry Office. The aggregated data is published on their webpage: <http://www.registraduria.gov.co/-Datos-abiertos-.html>.

⁸According to population projections, voting registration rates in Colombia are nearly 100%.

and keep people from beneficiary households with a unique and valid identity card, a *cédula*, needed to vote. This sample corresponds to approximately 3.8 million people. We checked whether having a *cédula* could impact the quality of our match. Using the *SISBEN* dataset for adults in urban and rural areas, in Figure 1 we plot the probability of having a *cédula* by *SISBEN* score. The figure shows no discontinuous change at the FA eligibility threshold, alleviating concerns about people deliberately obtaining *cédulas* to sign up for FA.

Since by construction the *SIFA* dataset only has information on FA beneficiaries, we use our third data source, the *SISBEN*, to obtain a comparison group and control variables. Specifically, the *SISBEN* allow us to identify non-participants who are comparable to FA beneficiaries, namely that they live in households with similar socio-economic and demographic characteristics as determined by their poverty index score. As of March 2007, the *SISBEN* dataset has approximately 16 million people with a unique and valid identity card needed to vote.

We initially match the data from *SIFA* and the electoral census using the national identity card (*cédula*) number. We merge to this matched dataset the *SISBEN*. As explained in more detail below, given the program rules determining eligibility to FA, the *SISBEN* dataset provides the right setting for an instrumental variables strategy to address concerns of endogenous take-up. The electoral census does not have information on sex or age for individuals who vote but are not part of the *SISBEN* dataset. To overcome this, we infer the age and sex of the person using their *cédula* number as explained in Appendix A. Finally, to these data we merge booth-level electoral results for the 2010 presidential election. Our unit of observation is the voting booth-electoral round.

Table 1 presents descriptive statistics for the booth-level sample used to estimate the effects of FA on voter turnout and choice, showing summary statistics for the *SIFA* and the electoral census matched with the *SISBEN*. Each voting booth had an average of 420 individuals. Turnout rates at the booth-level for both presidential elections (first round and runoff) were close to 59 percent. We analyze these data by sex; thus we report the proportion of women and men at each booth who are FA beneficiaries (on average 9% and 3% respectively). Finally, the average fraction of votes for the incumbent party candidate was 46%, with a margin of victory at the booth-level of 25 pp.

4 Empirical Strategy

Individual-level voting data is rarely (legally) recorded. To overcome this absence we use voting outcomes at the voting booth-level, which is the most disaggregated level available. As stated in the background section, voters can choose their polling station but the voting booth where they cast the ballots is completely beyond their control. Therefore, identification comes from variation in the proportion of people enrolled in FA across voting booths within a polling station. We first estimate the results using the proportion of FA beneficiaries at the booth ($Prop_FA$):

$$Y_{pbr} = \gamma_0 + \gamma_1 Prop_FA_{pb} + Zcontrols_{pb} + \theta_p + \eta_r + \epsilon_{pbr} \quad (1)$$

And then, we report results where we separate FA beneficiaries by sex:

$$Y_{pbr} = \gamma_0 + \gamma_1 Prop_FA_female_{pb} + \gamma_2 Prop_FA_male_{pb} + Zcontrols_{pb} + \theta_p + \eta_r + \epsilon_{pbr} \quad (2)$$

Where p designates a polling station, b a voting booth, and r the electoral round. Y is the outcome of interest (turnout, incumbent’s party vote share, margin of victory) which is identified in each table. $Prop_FA_female$ is the proportion of women registered voters at the booth who are FA beneficiaries. Similarly, $Prop_FA_male$ is the proportion of men registered voters at the booth who are FA beneficiaries.⁹ $controls$ corresponds to a vector of other booth-level characteristics such as proportion female and the median and standard deviation of the age in each booth as described in Appendix A. To further control for poverty, in this vector of controls, we include the average *SISBEN* score at the booth. In addition, using information from people in the *SISBEN*, we include other booth-level characteristics including proportion: urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and booth averages for: household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. The regressions also include polling station and electoral round fixed effects.¹⁰

We address the possibility of endogenous take-up of the program by using eligibility to FA as an instrument for FA enrollment. We defined FA eligibility using the *SISBEN* score and whether or not there are children in the household of qualifying age. Specifically, a person is eligible if: (1) the household where that person lives has a *SISBEN* score below the FA eligibility threshold, and (2) there are children in the household less than 18 years of age at the time of the 2010 elections. If both the mother and the father live in a household that complies with these characteristics, then both would be considered

⁹The partial correlation between Prop. FA female and Prop. FA male is -0.1807 controlling for the average *SISBEN* score at the booth, electoral round fixed effects, and all the other controls included in the regressions of the paper.

¹⁰Another way to think about the polling station fixed effects is as neighborhood fixed effects, since typically polling stations are scattered around the municipality across different neighborhoods.

FA eligible. We estimate the following empirical model:

$$\begin{aligned}
 Y_{pbr} = & \delta_0 + \delta_1 \widehat{Prop_FA_female}_{pb} + \delta_2 \widehat{Prop_FA_male}_{pb} \\
 & + Z_{controls}_{pb} + \theta_p + \eta_r + \epsilon_{pbr}
 \end{aligned} \tag{3}$$

Where the subscripts, booth-level controls, and fixed effects follow those specified in equation 2. The $\widehat{Prop_FA}_{pb}$ variables for female (male) are obtained from a first stage regression of the proportion of female (male) enrolled in FA on the proportion of eligible female (male).

The coefficients of interest are δ_1 and δ_2 . Conditional on the booth-level controls, polling station and electoral round fixed effects, these coefficients indicate the effect on the voting outcome resulting from an increase in the estimated (instrumented) proportion of FA female (male) beneficiaries at a voting booth.

5 Findings

5.1 Fixed Effects Results

We initially look at whether FA participation translates into additional votes. Considering that voting is not compulsory in Colombia, this point is important in light of the differences between high registration and low turnout rates. In the 2010 presidential elections, 43.8% of the people registered in the electoral census cast ballots.¹¹

Using polling station fixed effect models we look at the impact of FA on voter turnout in the 2010 presidential election. We report the overall effect on FA recipients and then separately explore the effects on women and men. The results indicate that the receipt of FA transfers has a positive effect in the probability of casting a ballot. In Table 2

¹¹Source: Election Guide, website:<http://www.electionguide.org/countries/id/48/>. The difference between this number and what is reported in the summary statistics tables comes from whether the unit of observation is the booth or the individual.

(column (1) Panel A) we show overall results for FA recipients indicating that a 10 pp increase in the proportion of FA results in a 1.68 pp increase in turnout. In panel B, we split the results by sex and find that the results show an increase in voting for both men and women. For women, an increase of 10 pp in the proportion of female FA beneficiaries at the voting booth, increases turnout by 1.65 pp. This corresponds to a 2.8% increase in the average turnout rate. The effect on men is smaller, an increase of 10 pp in the proportion of male FA beneficiaries at the voting booth results in an increase in turnout of .9 pp. This corresponds to a 1.5% increase in the average turnout rate.

The FA program became the government’s flagship anti-poverty intervention during Alvaro Uribe’s two terms, which led to a notable expansion until achieving almost national coverage by 2010. The results discussed above indicate that FA beneficiaries, particularly women who were the direct recipients of the transfer were more likely to vote in the Presidential elections. Seeking to shed light on the possible influence of targeted transfers on voter’s choices, we examine whether FA fostered political support for the incumbent party candidate that implemented and expanded the program between 2002 and 2009.

We measure political support with two variables: the percentage of votes that went to the candidate of the incumbent party net of turnout (i.e. the denominator is total votes in each booth);¹² and the margin of victory defined as:

$$\frac{VotesIncumbent - VotesRunnerUp}{Incumbent + RunnerUp} \quad (4)$$

where a value close to 1 favors the incumbent party, whereas a value close to -1 favors the runner-up.

The findings reported in Table 2 columns (2) in panel A, indicate that FA benefi-

¹²If instead of using total votes in the denominator we use total registered we find that standardized coefficients that account for the variation in FA men and women show consistent results with our main results.

ciaries vote more for the incumbent party candidate. A 10 pp increase in the number of individuals enrolled in FA translates into increased support for the incumbent corresponding to a 1.05 pp. As shown in panel B, both women and men increase their support although again the effects are quantitatively larger for women. A 10 pp increase in the average female FA participation rate at each voting booth raises the share of votes of the elected candidate by 1.04 pp, which corresponds to approximately a 2.3% of the average vote share of the incumbent. The corresponding results for men are a .65 pp increase, corresponding to 1.4% of the average vote share for the incumbent party.

Results based on the margin of victory reported in column (3) yield similar conclusions both for the entire sample, reported in panel A, and when the data is split by sex, reported in panel B. Looking at the effects on women, a 10 pp increase in the FA beneficiaries indicate that the gap in the votes between the incumbent party, and the runner-up broadened in favor of the former with an increase of 1.68 pp, that corresponds to a 6.7% of the average margin of victory. With the same increase in FA beneficiaries, the results for men are positive but not as large (0.82 pp or 3.2% of the average margin of victory). Results broken down by electoral round (not reported in the table) show that they are not driven by one of the rounds, and that the patterns persist. Namely, the stronger support for the incumbent party attributed to FA is driven mostly by women.

5.2 Instrumental Variables Results

To address the possibility of endogeneity due to non-random enrollment in the FA program, we estimate 2SLS regressions where we instrument the proportion of people covered by FA in each of the booths with the share of booth-level individuals eligible to FA as determined by the *SISBEN* score and whether they have children in the eligible age range. We followed the specification outlined in equation 3. The first stage results for the whole

sample are reported in Table 3. The results indicate that our instrument is a strong determinant of the proportion of FA participants at each booth. F-statistics reported in the 2SLS tables are all above the rule-of-thumb threshold of 10.

The 2SLS regressions for both electoral rounds appear in panel A of Table 4. Consistent with the FE results previously discussed, the IV results show an increase in turnout and support for the incumbent party candidate among FA program participants, in particular among women. The increase in support among men is not always statistically significant. For both men and women, the effects are in general smaller than those reported in Table 2 based on the fixed effects estimation. In particular with a 10 pp increase in the FA beneficiaries proportion, women (men) are 1.5 (.79) pp more likely to cast a ballot, 1.1 (.67) pp more likely to support the incumbent party candidate. The effects on women are statistically larger than the effects on men, as seen in the p-value reported of a test with a null of equality in the coefficients.¹³

5.3 Channels

Having established empirically that enrollment in FA increases voter participation and support for the incumbent, especially the direct recipients of the transfers, we now try to disentangle the mechanisms through which these effects may work.¹⁴ First, we look at whether the effect we see of increased participation among women FA recipients is due to women being more responsive electorally or to the fact that they are most often designated as the person in the household to receive the transfer. Then we explore whether civic engagement, gratitude toward the incumbent party, or patronage is driving the results.

¹³To get a sense of whether the lack of control variables for every person assigned to a booth is driving the general pattern of results, we restricted the sample to voting booths where there is a relatively high proportion of people who appear in the *SISBEN* registry. Although, there is some variation on whether the results for men and women differ, consistent with our main findings, individuals covered by FA are more likely to cast a ballot on election day and vote for the candidate of the incumbent party (see Appendix Table A1).

¹⁴We thank a referee for specific and helpful suggestions in this section.

To explore whether men and women respond differently to FA, we coded the proportion of single FA mom and single FA dad recipients controlling for the remaining FA recipients, and we run a regression similar to equation 2, where we separately identify the effects for FA single moms and FA single dads. Keeping in mind that single parents households may be different from households with two parents, Table 5 reports the coefficients for FA single mom and dad recipients and shows that both increase turnout and support for the incumbent party candidate. Single dads receiving FA appear to react similarly to single moms receiving FA. This could be because the program was designed to have women as direct beneficiaries, but in particular circumstances when there was no woman in the household, single dads could receive the benefit. These results show suggestive evidence that the effect is working more strongly on women because they are designated to be the “direct” recipients rather than differences in political behavior and preferences between women and men. When single dads are the direct recipients, they also respond to FA in a consistent way. If we assume that the household is a single economic unit the benefits and responses should be consistent across household members; however there appear to be additional effects from being designated the “recipient”, or from intra-household bargaining that we do not observe in the data.

Enrollment in government programs can result in higher support and participation in the electoral process due to increased contact with government officials and higher trust in the government. For instance, participants in FA had community level meetings with government representatives designed to provide advice and information about the benefits and conditions of the program. This increased interaction with government officials during community meetings can, in turn, increase civic engagement, as recipients express greater interest and desire to participate in the political process, thus strengthening democratic

representation. Additionally, voters may feel gratitude for receiving benefits from the government, and thus may want to support the incumbent party freely. There can also be another mechanism at work, patronage, whereby politicians use the program to their advantage, exchanging access to the program for votes.

We can get suggestive evidence by using the legislative elections of March 2010 and the same 2SLS strategy outlined in section 4 to compare political participation (turnout) of FA recipients to non-recipients. This legislative election was held to elect 102 and 166 members of both chambers of Congress, the Senate and the House of Representatives, respectively. Given that FA was enacted and implemented at the central government level and that Congress does not make direct decisions concerning FA, we argue that voters associated the incumbent president party with FA, rather than with the 2,481 candidates that competed in these legislative elections. Furthermore, results on these elections presented in panel A and B of Table 6, show increased participation of FA recipients (total, women and men) in the electoral process. These results do not differ by sex, showing increase turnout for both men and women. This is consistent with increased civic engagement or gratitude towards the incumbent party, as there are no direct patronage benefits that program recipients could get from participating in these elections.

Next, to further investigate the possibility of civic engagement and gratitude towards the incumbent party, as the mechanisms driving the effects, we explore the behavior of former FA recipients. If civic engagement and gratitude instead of patronage are driving the results, we expect turnout of former FA recipients to increase relative to non-FA recipients. We define “Prop. FA graduated” as households who were once part of the program but who at the time of the 2010 presidential election were no longer

with the program because their children had surpassed the maximum age restriction.¹⁵ We compare these voters to voters with children still in the program using a regression specification similar to the one used in Table 2. Results, shown in panel C of Table 6, indicate that the program increased voting participation for current and former recipients. While we are unable to fully rule out that political patronage played a role, the fact that former participants are more likely to cast a ballot even when they are no longer receiving benefits, lends support to the hypothesis of civic engagement and gratitude as mechanisms since those who exited the program are less likely to be coerced by patronage.

6 Robustness

In this section, we test the robustness of our results; first with an alternative specification, then by checking that our results are not being driven by specific ways in which we include the controls.

6.1 Specification using Distance from the Eligibility Threshold

We test the robustness of the results with an alternative specification that uses information for people around the FA eligibility threshold.¹⁶ Specifically, we calculate the proportion female and male h points from the eligibility threshold and, using different windows from this threshold, we estimate the difference in turnout and support for the incumbent party candidate. The underlying assumption is that, for a small h , individuals around this eligibility threshold are similar. Formally, we estimate the following

¹⁵The mean number of observations in each booth with this definition is 3.72.

¹⁶We thank a referee for providing this idea.

regression, and present the results graphically in Figure 2:

$$\begin{aligned}
y_{pbr} = & \alpha_0 + \beta_f Prop\ female_{[c_0-h, c_0]} + \gamma_f Prop\ female_{[c_0, c_0+h]} + \\
& \beta_m Prop\ male_{[c_0-h, c_0]} + \gamma_m Prop\ male_{[c_0, c_0+h]} + \\
& \sum_{s \notin [c_0-h, c_0+h]} \rho_s score_s + Zcontrols_{pb} + \theta_p + \eta_r + \varepsilon_{pbr}
\end{aligned} \tag{5}$$

Where: $\sum_{s \notin [c_0-h, c_0+h]} \rho_s score_s$ controls for the proportion of people in each SISBEN score excluding the ones in the window from the FA eligibility threshold and h ; $Zcontrols$ corresponds to the same controls that we include in equation 2; likewise, p denotes a polling station, b a voting booth and r an electoral round.

Figure 2 plots the difference between β and γ coefficient estimates for both male and female varying the parameter h from 1 to 6. Each of the three panels correspond to the three outcomes of interest. Panel A shows results for turnout, panel B for the proportion of votes for the incumbent candidate, and panel C for the margin of victory. Three main findings emerge from this exercise. First, the difference in the point estimates of the coefficients of interest become more precise as the number of points from the threshold, h , increases. Second, for women the differences in the three outcomes are positive, statistically different from zero, and quantitatively more stable than for men for values of h ranging between 2 and 6. Finally, while this pattern confirms the robustness of the findings for women, it is less evident for the differences calculated for men, which are mainly negative or non-significant.

6.2 Alternative controls

In addition to the polling station fixed effects, we include the average *SISBEN* score at the booth as a way to control for poverty. As a robustness check, we allow for a more flexible specification where we include the proportion of people in the booth at each point

of the *SISBEN* score. As Table 7 shows, the results are consistent both in magnitude and direction with those reported in Table 2, thus indicating that the average *SISBEN* score at the booth is enough to control for variation in the socioeconomic background of voters. Moreover, in addition, the stability of the point estimates in regressions with and without controls lends credibility to the internal validity of our strategy, reinforcing our underlying identifying assumption that the allocation of individuals to voting booths is arguably orthogonal to these controls.

7 Conclusion

This paper provides empirical evidence that targeted transfer programs impact political participation and voting choices. This issue is attracting the attention of policymakers and researchers who seek policy instruments that balance the trade-offs of the direct and indirect effects of CCTs -including increasing citizen engagement in the electoral process while strengthening electoral accountability. On the one hand, increasing voter turnout in a non-clientelistic way is considered a desirable outcome since it increases representation, an essential element that underpins a democracy. This effect is even more important for countries with low turnout rates like Colombia where voting is not compulsory and turnout rates in 2010 were around forty-four percent. Influencing voters behavior via patronage practices, on the other hand, is considered undesirable.

Using a unique dataset with individual-level voter registration data and booth-level voting information, our IV results show that for a 10 pp increase in the proportion of FA beneficiaries, women are around 1.5 pp more likely than comparable non-beneficiaries to cast a ballot. Results for men are also positive, but smaller in magnitude. Expanding those findings, we show that not only voter participation but voter choice depends in

part on who in the household receives the money. Mothers in the household who receive the cash transfers are the ones most influenced by the program. We find increased support among FA women, for a 10 pp in the proportion of beneficiaries at the booth, the incumbent party candidate support increases by 1 pp. These heterogeneous effects are likely the result of both the actual receipt of money and more extensive participation with officials running the program at the community level. More specifically, in the case of FA, the mothers of beneficiary children, designated to receive the transfer, are also required to participate in activities at the community level (e.g., growth monitoring sessions and workshops on good nutrition, health and hygiene practices). The recurrent interactions between program administrators, community leaders and mothers, typical of CCT programs, also increase the exposure of women to public life and information, thus raising their awareness of the importance of participating in the electoral process to shape policy outcomes. Without fully ruling out patronage, we provide suggestive evidence that increased civic engagement and gratitude towards the incumbent party by FA recipients are important channels for our results. This hypothesis fits well with results from previous evidence showing that women tend to vote more and adjust their candidate choices when given extra information about the importance of political participation (Giné and Mansuri 2011). Moreover, compared to men, women who vote are more supportive of candidates promoting policies that deliver welfare services (Lott and Kenny 1999; Funk and Gathman 2006 and Aidt and Dallal 2007).

Given the local nature of the estimator presented in this paper, it is not possible to account for all of the political support for the official party brought about by the FA program. Considering the wide margin of victory exhibited by the elected president, the overall change in political preferences attributed to FA cannot fully explain the outcome

of the 2010 presidential election. The results, however, are not trivial in magnitude. They show that voters and in particular the direct recipients, respond to targeted transfers by supporting incumbents. Even though we show suggestive evidence that civic engagement is increasing, from a policy perspective, it is still important to incorporate political and legislative mechanisms to reduce the risk of anti-poverty schemes being captured by political patronage.

References

- Aidt, Toke S. and Bianca Dallal.** 2008. “Female Voting Power: The Contribution of Women’s Suffrage to the Growth of Social Spending in Western Europe (1869-1960).” *Public Choice* 134(3): 391–417.
- Akresh, Richard and Damien de Walque and Harounan Kazianga.** 2016. “Evidence from a Randomized Evaluation of the Household Welfare Impacts of Conditional and Unconditional Cash Transfers Given to Mothers or Fathers.” Working paper 7730, World Bank Policy Research.
- Attanasio, Orazio and Emla Fitzsimons and Ana Gómez.** 2005. “The Impact of a Conditional Education Subsidy on School Enrollment in Colombia.” Working paper, Institute for Fiscal Studies, London.
- Attanasio, Orazio and Emla Fitzsimons and Ana Gomez and Maria I. Gutierrez and Costas Meghir and Alice Mesnard .** 2010. “Children’s schooling and work in the presence of a conditional cash transfer program in rural Colombia.” *Economic Development and Cultural Change* 58(2): 181–210.
- Camacho, Adriana and Emily Conover.** 2011. “Manipulation of Social Program Eligibility.” *American Economic Journal: Economic Policy* 3(2): 41–65.
- De la O, Ana L.** 2013. “Do Conditional Cash Transfers Affect Electoral Behavior? Evidence from a Randomized Experiment in Mexico.” *American Journal of Political Science* 57(1): 1–14.
- Fiszbein, Ariel and Norbert R. Schady, and Francisco Ferreira and Margaret Grosh and Nial Kelleher and Pedro Olinto and Emmanuel Skoufias.** 2009.

Conditional Cash Transfers: Reducing Present and Future Poverty. World Bank Publications.

Funk, Patricia and Christina Gathmann. 2006. “What Women Want: Suffrage, Gender Gaps in Voter Preferences and Government Expenditures.” Working paper, Universitat Pompeu Fabra.

Galiani, Sebastian and Nadya Hajj and Patrick J McEwan and Pablo Ibararán and Nandita Krishnaswamy. 2017. “End Heuristics in Retrospective Voting: Evidence from a Conditional Cash Transfer Experiment.” Working paper, Wellesley College.

Giné, Xavier and Ghazala Mansuri. 2011. “Together We Will: Experimental Evidence on Female Voting Behavior in Pakistan.” Policy Research Working Paper Series 5692, World Bank.

Imai, Kosuke and Gary King and Carlos Velasco Rivera. 2017. “Do Nonpartisan Programmatic Policies Have Partisan Electoral Effects? Evidence from Two Large Scale Randomized Experiments.” Working paper, Princeton University.

Labonne, Julien. 2013. “The Local Electoral Impacts of Conditional Cash Transfers: Evidence from a Field Experiment.” *Journal of Development Economics* 104: 73–88.

Lott, John R. and Lawrence W. Kenny. 1999. “Did Women’s Suffrage Change the Size and Scope of Government.” *Journal of Political Economy* 107(6): 1163–1198.

Manacorda, Marco and Edward Miguel and Andrea Vigorito. 2011. “Government Transfers and Political Support.” *American Economic Journal: Applied Economics* 3(3): 1–28.

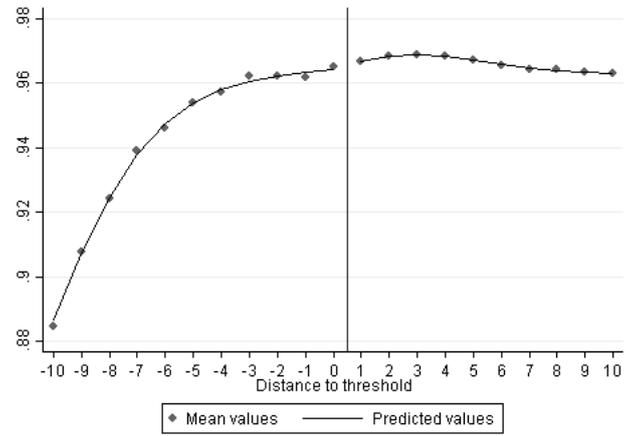
Nupia, Oskar. 2011. “Anti-Poverty Programs and Presidential Election Outcomes: Familias en Acción in Colombia.” Working paper 2011-14, Universidad de Los Andes-CEDE.

Rodríguez-Chamussy, Lourdes. 2015. “Local Electoral Rewards from Centralized Social Programs: Are Mayors Getting the Credit?” Working paper, IDB Working Paper Series.

Tobias, Julia E. and Sudarno Sumarto and Habib Moody. 2014. “Assessing the Political Impacts of a Conditional Cash Transfer: Evidence from a Randomized Policy Experiment.” Working paper, The SMERU Research Institute Working Paper.

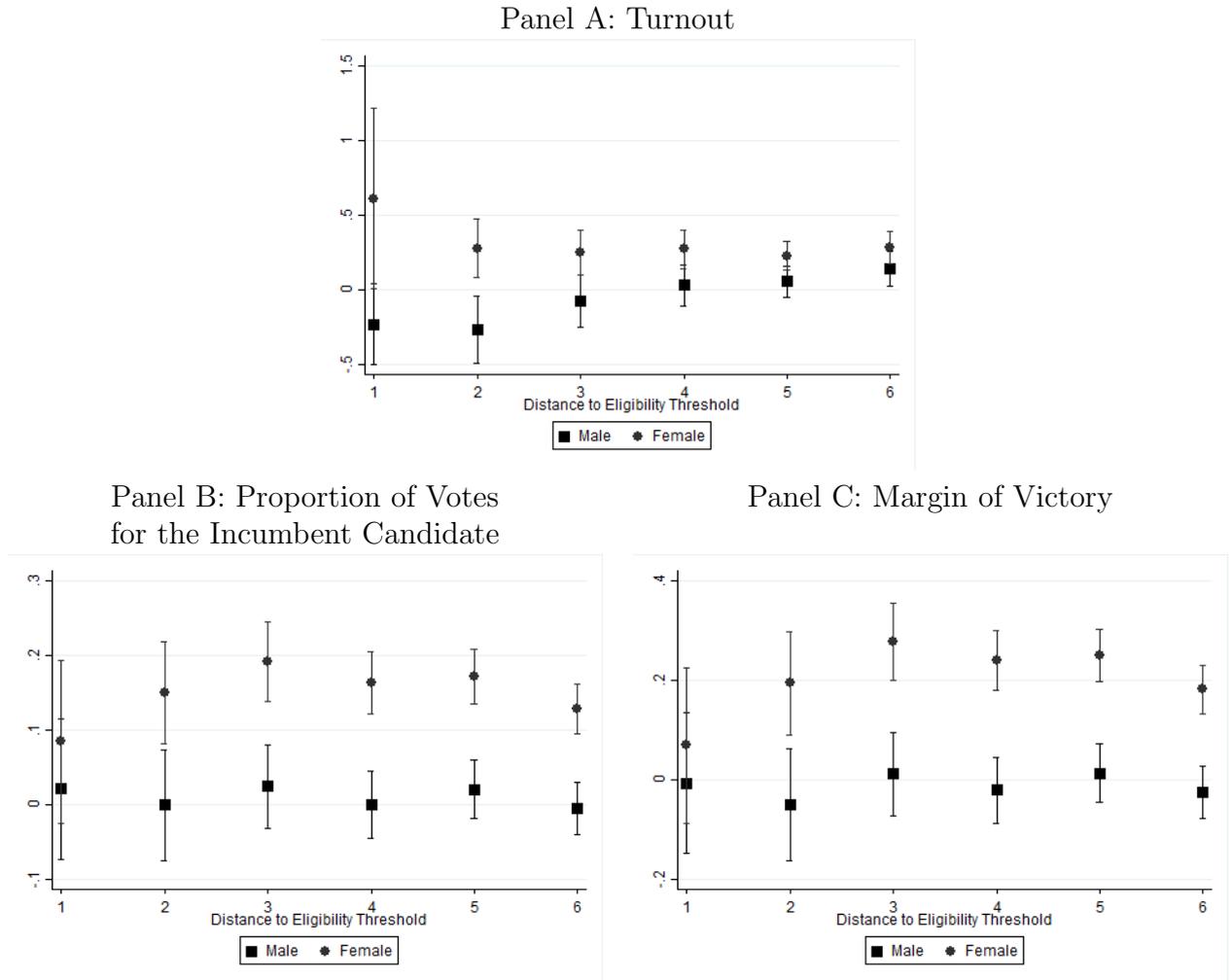
World Bank-IEG. 2011. “Evidence and Lessons Learned from Impact Evaluations in Social Safety Nets.” Working papers, Washington, DC: The World Bank.

Figure 1: Probability of Having a National Identity Card (*Cédula*)



Source: *SISBEN* dataset, restricting the sample to adults.

Figure 2: Comparing Voters h Points Above and Below the FA Eligibility Threshold



Note: The x-axis shows the distance to the eligibility threshold h from both sides. The figure shows the estimates of equation 5: the difference between the coefficients of the proportion of individuals (male or female) h points below the eligibility threshold versus the coefficient of the proportion h points above. Standard errors are clustered at the polling station level. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections.

Table 1: booth-level Summary Statistics

	Mean	Std. Dev.	Min	Max
Registered people	420	122	7	2239
Number of votes	243	90	1	751
Outcome Variables				
Turnout	0.59	0.19	0	1
Vote share for incumbent	0.46	0.17	0	1
Margin of victory ^b	0.25	0.26	-1	1
Explanatory Variables				
Prop. FA	0.12	0.13	0	0.82
Prop. FA female	0.09	0.12	0	0.82
Prop. FA male	0.03	0.06	0	0.59
Prop. FA graduated	0.01	0.01	0	0.19
Prop. FA single mom	0.06	0.09	0	0.63
Prop. FA single dad	0.01	0.01	0	0.16
Controls				
Age	42.38	15.70	18	97
Female	0.56	0.43	0	1
Urban	0.83	0.23	0	1
Number of children	1.00	0.44	0	9
Household size	3.95	0.64	1	19
Years of schooling	6.52	2.10	0	14
Cohabiting	0.23	0.16	0	1
Working	0.45	0.24	0	1
Not working	0.11	0.09	0	1
Seeking employment	0.06	0.06	0	1
Student	0.08	0.14	0	1
Works in the home	0.27	0.24	0	1
Receiving a pension	0.02	0.05	0	0.71
Disabled	0.00	0.01	0	0.25

Note: 133,226 total observations, 66,613 in each round. ^bMargin of Victory is defined as $\frac{Votes\ Incumbent - Runner\ Up}{Votes\ Incumbent + Runner\ Up}$. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections.

Table 2: Fixed Effects Results for Voting and Voting Outcomes

Dependent variable:	Turnout	Vote Share of Incumbent Party Candidate	Margin of Victory
	(1)	(2)	(3)
Panel A: Both Rounds			
Prop. FA	0.168*** (0.013)	0.105*** (0.010)	0.171*** (0.017)
R^2 Within	0.31	0.58	0.51
Observations	133,226	133,226	133,226
Panel B: Both Rounds by Sex			
Prop. FA female	0.165*** (0.013)	0.104*** (0.010)	0.168*** (0.017)
Prop. FA male	0.091*** (0.024)	0.065*** (0.020)	0.082** (0.033)
R^2 Within	0.31	0.58	0.51
Observations	133,226	133,226	133,226
P-value test	0.000	0.001	0.000

Note: Robust standard errors in parenthesis. All regressions include polling station and electoral round fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for the *SISBEN* score, household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections. P-value reports results from a test with a null of equality between the FA female and FA male coefficients. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3: Voting and Voting Outcomes—First Stage of IV

Dependent variable:	Proportion <i>Familias en Acción</i> (FA)
(1)	
Panel A: All	
Prop. Eligible	0.760*** (0.008)
R^2 Within	0.72
F-test	8485
Observations	133,226
Panel B: Women	
Prop. Eligible Female	0.944*** (0.008)
R^2 Within	0.91
Observations	133,226
F-test	11387
P-value test	0.000
Panel C: Men	
Prop. Eligible Male	0.467*** (0.012)
R^2 Within	0.73
Observations	133,226
F-test	822
P-value test	0.000

Note: Robust standard errors in parenthesis. All regressions include polling station and electoral round fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for the *SISBEN* score, household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections. F-test reports the first stage F-statistic. P-value reports results from a test with a null of equality between the Prop. FA female and Prop. FA male coefficients. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4: 2SLS Results Using Eligibility as an IV for FA Enrollment

Dependent variable:	Turnout	Vote Share of Incumbent Party Candidate	Margin of Victory
	(1)	(2)	(3)
Both Rounds			
Prop. FA	0.140*** (0.009)	0.106*** (0.007)	0.121*** (0.009)
R^2 Within	0.31	0.33	0.37
Observations	133,226	133,226	133,226
F test	59841	59841	59841
Panel B: Both Rounds by Sex			
Prop. FA female	0.150*** (0.007)	0.112*** (0.006)	0.143*** (0.008)
Prop. FA male	0.079*** (0.019)	0.067*** (0.015)	-0.023 (0.021)
R^2 Within	0.31	0.33	0.37
Observations	133,226	133,226	133,226
F1	153139	153139	153139
F2	44156	44156	44156
P-value test	0.000	0.000	0.000

Note: Robust standard errors in parenthesis. All regressions include polling station and electoral round fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for the *SISBEN* score, household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. First stage results are reported in Table 3. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections. P-value reports results from a test with a null of equality between the Prop. FA female and Prop. FA male coefficients. F1 and F2 are Angrist and Pischke F-statistics for proportion FA female and proportion FA male, respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 5: Fixed Effects Results for Single Parents

Dependent variable:	Turnout	Vote Share for Incumbent Party Candidate	Margin of Victory
	(1)	(2)	(3)
Panel A: 2010 Presidential Elections Both Rounds			
Prop. FA single mom	0.224*** (0.015)	0.147*** (0.010)	0.256*** (0.016)
Prop. FA single dad	0.488*** (0.087)	0.274*** (0.058)	0.480*** (0.091)
R^2 Within	0.31	0.58	0.52
Observations	133,226	133,226	133,226
P-value test	0.001	0.014	0.006

Note: Robust standard errors in parenthesis. All regressions include polling station and electoral round fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for the *SISBEN* score, household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and Electoral results for the 2010 Presidential election. P-value reports results from a test with a null of equality between the Prop. FA female and Prop. FA male coefficients. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6: Potential Mechanisms	
Dependent variable:	Turnout
Panel A: 2010 Legislative Elections	
2SLS Results	
Prop. FA	0.275*** (0.014)
R^2 Within	0.19
Observations	60,447
F test	25833
Panel B: 2010 Legislative Elections	
2SLS by Sex	
Prop. FA female	0.276*** (0.013)
Prop. FA male	0.271*** (0.032)
R^2 Within	0.19
Observations	60,447
F1	66578
F2	19078
P-value test	0.838
Panel C: 2010 Presidential Elections	
Current vs. Former FA Recipients	
Prop. FA	0.146*** (0.013)
Prop. FA graduated	0.516*** (0.071)
R^2 Within	0.31
Observations	133,226
P-value test	0.000

Note: Standard errors in parenthesis. All regressions include polling station and electoral round fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database, we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for the *SISBEN* score, household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. First stage results for panel A are 0.761 (SE:0.005) for all; for panel B 0.946 (SE: 0.003) for women and 0.466 (SE:0.003) for men, all significant at the 1% level. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results for the 2010 legislative election. P-value reports results from a test with a null of equality between the Prop. FA female and Prop. FA male coefficients. F test is Angrist and Pischke first stage F-statistic for proportion FA. F1 and F2 are Angrist and Pischke F-statistics for proportion FA female and proportion FA male, respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 7: Voting and Voting Outcomes with *SISBEN* score Fixed Effects

Dependent variable:	Turnout	Vote Share of Incumbent Party Candidate	Margin of Victory
	(1)	(2)	(3)
Panel A: Both Rounds			
Prop. FA	0.172*** (0.013)	0.104*** (0.010)	0.169*** (0.017)
R^2 Within	0.32	0.58	0.52
Observations	133,226	133,226	133,226
Panel A: Both Rounds by Sex			
Prop. FA female	0.170*** (0.013)	0.102*** (0.010)	0.166*** (0.017)
Prop. FA male	0.101*** (0.024)	0.061*** (0.019)	0.077** (0.033)
R^2 Within	0.32	0.58	0.52
Observations	133,226	133,226	133,226
P-value test	0.000	0.000	0.000

Note: Robust standard errors in parenthesis. All regressions include polling station, electoral round fixed effects, and *SISBEN* score fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database, we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections. P-value reports results from a test with a null of equality between the Prop. FA female and Prop. FA male coefficients. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

A Appendix

When matching *SIFA* and the electoral census, we are able to match 96% of the observations in *SIFA*. Adding the *SISBEN* to this matched dataset results in a 91% matching rate of the adults in *SISBEN*.¹⁷ The unmatched people could be due to those who did not register to vote or with typos in their id numbers.

We use information on sex and age from *SIFA* and *SISBEN*. When this information is not available, we use the *cédula* number to obtain the sex of the person as indicated by the rules outlined by the national registry office.¹⁸ The rules explain that certain numbers are assigned to women and others to men. We are able to obtain sex information for 86% of the data. The unidentified data has *cédula* numbers at or above one hundred million which are assigned arbitrarily to both men and women.

Since people typically get their *cédula* when they turns 18 and numbers are assigned consecutively on a first come first serve basis, to obtain the age for those not in *SIFA* or *SISBEN*, using information from these sources where age and *cédula* numbers are available, we create a dataset that takes the median value of the *cédula* number for people in a given municipality by sex. We then match the *cédula* number by municipality and sex to the closest value that is greater than or equal in this dataset to get an age for each person.¹⁹

We are able to obtain age information for 82% of the data. These values are aggregated at the booth-level to obtain a median age at each booth. As a check the average median age in the booth using reported information from *SISBEN* is 41.5 years, while the average

¹⁷These matching rates are high and are consistent with registration rates reported in survey data such as LAPOP in 2006 (98% among FA recipients), 2007 (98% among FA recipients) and 2008 (90% among FA recipients).

¹⁸http://www.registraduria.gov.co/rev_electro/2012/rev_elec_noviembre/revista_noviembre2012.html

¹⁹We use the `nearmrg` in STATA. Results using the closest or lowest values are consistent with the ones reported here.

median age that uses additional information inferred from the *cédula* number is very close at 42.4 years. Furthermore, results using actual age and sex information from the *SISBEN* are consistent with those reported in the tables and are available upon request.

Table A1: 2SLS by proportion in the *SISBEN* at each Booth

Dependent variable:	Turnout	Vote Share of Incumbent Party Candidate	Margin of Victory
	(1)	(2)	(3)
Panel A: More than 75% in the <i>SISBEN</i>			
Prop. FA	0.132*** (0.017)	0.154*** (0.014)	0.175*** (0.019)
R^2 Within	0.29	0.19	0.23
Observations	33,404	33,404	33,404
F test	11527	11527	11527
Prop. FA female	0.130*** (0.018)	0.153*** (0.015)	0.166*** (0.020)
Prop. FA male	0.097** (0.047)	0.131*** (0.040)	-0.003 (0.054)
R^2 Within	0.29	0.19	0.23
Observations	33,404	33,404	33,404
F1	30468	30468	30468
F2	3185	3185	3185
P-value test	0.293	0.409	0.000
Panel B: More than 90% in the <i>SISBEN</i>			
Prop. FA	0.097*** (0.024)	0.153*** (0.021)	0.177*** (0.028)
R^2 Within	0.31	0.15	0.17
Observations	13,316	13,316	13,316
F test	4927	4927	4927
Prop. FA female	0.082*** (0.028)	0.149*** (0.025)	0.157*** (0.032)
Prop. FA male	-0.059 (0.075)	0.112* (0.065)	-0.032 (0.086)
R^2 Within	0.31	0.15	0.17
Observations	13,316	13,316	13,316
F1	11542	11542	11542
F2	985	985	985
P-value test	0.006	0.403	0.001

Note: Robust standard errors in parenthesis. All regressions include polling station and electoral round fixed effects; and controls for the proportion female and the median and standard deviation of age at each booth. Using information from the *SISBEN* database, we also control for the proportion urban, cohabiting, working, not working, seeking employment, studying, working in the home, receiving a pension and disabled; and for booth-level averages for the *SISBEN* score, household size, number of children, years of schooling and length of time between the *SISBEN* interview and the elections. Data comes from *SIFA*, *SISBEN*, the Electoral Census, and electoral results from the 2010 presidential elections. P-value reports results from a test with a null of equality between the Prop. FA female and Prop. FA male coefficients. F test is Angrist and Pischke first stage F-statistic for proportion FA. F1 and F2 are Angrist and Pischke F-statistics for proportion FA female and proportion FA male, respectively. *** p < 0.01, ** p < 0.05, * p < 0.1.