

*AmericasBarometer Insights: 2010 (No.47)\**

## Who Benefits from Bolsa Família?

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**B**olsa Família (Family Stipend) is the largest of the innovative anti-poverty conditional cash transfer (CCT) programs that have emerged in Latin America over the last two decades. These programs offer cash incentives to impoverished families so long as their children attend school and participate in public health initiatives and, by most accounts, have effectively targeted the neediest populations of the region to help reduce overall poverty (Rawlings 2005). Still, there are concerns with Brazil's Bolsa Família program: the program may favor rural over urban locales (*Economist* 2010). This *AmericasBarometer Insights Series* looks at Bolsa Família and addresses that alleged bias.<sup>1</sup> To do so, I employ data from the 2010 round of the AmericasBarometer surveys by the Latin American Public Opinion Project (LAPOP).<sup>2</sup> In this round 2,482 respondents from Brazil were asked the same question:

\* The Insights Series is co-edited by Mitchell A. Seligson, Amy Erica Smith, and Elizabeth J. Zechmeister, with administrative, technical, and intellectual support from the LAPOP group at Vanderbilt.

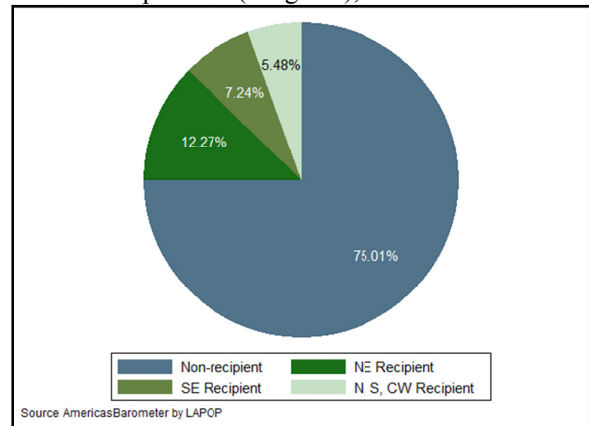
<sup>1</sup> Prior issues in the Insight series can be found at <http://www.vanderbilt.edu/lapop/insights.php>. The data on which they are based can be found at <http://www.vanderbilt.edu/lapop/datasets>

<sup>2</sup> Funding for the 2010 round mainly came from the United States Agency for International Development (USAID). Important sources of support were also the Inter-American Development Bank (IADB), the United Nations

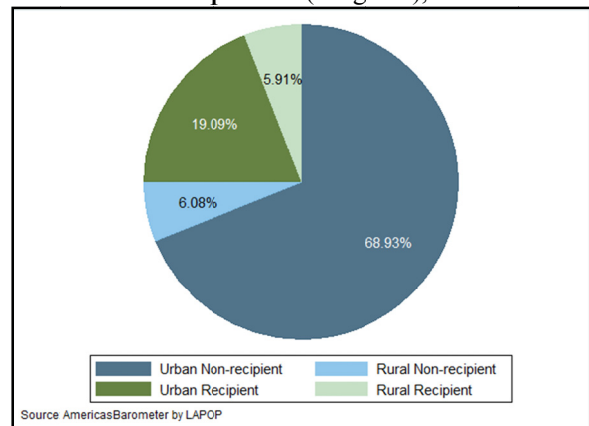
CCT1BRA. In the last three years were you or someone who lives in your household a beneficiary of the Bolsa Família program?

Responses were bivariate, and recoded here so that '0' indicates "No" and '1' indicates "Yes."<sup>3</sup> Figure 1 estimates recipients in each Brazilian region as a percentage of the country's population, adjusted for the sample design (i.e.,

**Figure 1.**  
Recipients in Each Region as a Percentage of the Brazilian Population (weighted), 2010



**Figure 2.**  
Recipients in Urban and Rural Areas as a Percentage of the Brazilian Population (weighted), 2010



Development Program (UNDP), and Vanderbilt University. The Brazilian survey was undertaken in partnership with the Universidade de Brasília and with the generous support of CNPq, Conselho Nacional de Desenvolvimento Científico e Tecnológico (National Council of Technological and Scientific Development).

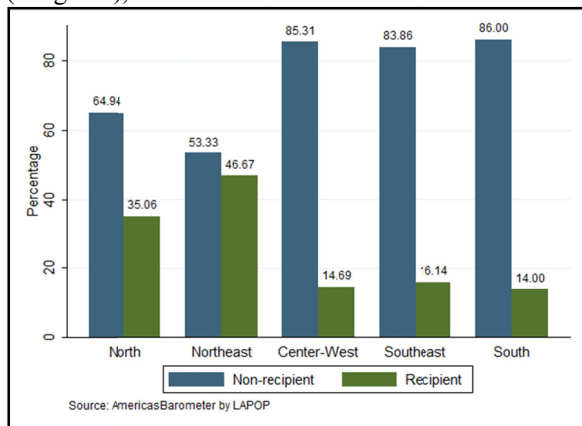
<sup>3</sup> Item non-response was 1.01% for the sample.

weighted). Figure 2 displays the design adjusted percentage of the Brazilian population receiving Bolsa Família, by urban or rural residence.

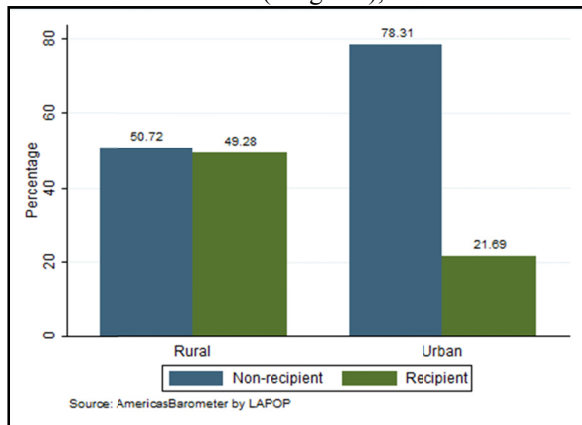
The figures show that Northeasterners and urban residents report the highest *absolute* levels of participation in Bolsa Família over the last three years. As shown in Figure 1, half of all participants in Bolsa Família live in the Northeast. Recipients from this region represent an estimated 12.27% of all Brazilians. In Figure 2, urban recipients (an estimated 19.09% of all Brazilians) outnumber their rural counterparts by more than 3 to 1.

Compare these results to those shown in Figures 3 and 4, which present the *rates* of participation

**Figure 3.**  
Rate of Participation in Bolsa Família by Region (weighted), 2010



**Figure 4.**  
Rate of Participation in Bolsa Família by Urban/Rural Residence (weighted), 2010



and non-participation in Bolsa Família by Brazilian region and by urban/rural area.

Figure 3 shows that an estimated 46.67% of residents in the Northeast region received benefits from Bolsa Família over the last three years compared to only 16.14% in the Southeast. Figure 4 shows that an estimated 49.28% of rural Brazilians participated in the program in the last three years whereas only 21.69% of urban residents have done so. However, using relative *rates* of participation is problematic for drawing inferences about Bolsa Família at the national level. Figures 3 and 4 help make statements about recipients versus non-recipients *within* each region or group, not across them.

Northeast Brazil is undoubtedly the poorest of Brazil's regions so it is not too surprising that its residents benefit in absolute terms from Bolsa Família more than any other region. On the other hand, Brazil is a highly urban country.<sup>4</sup> Brazil's urban areas tend to have large concentrations of impoverished Brazilians and given that urban participants only outnumber rural beneficiaries by a margin of 3 to 1 – as shown in Figure 2 – it is important to carefully consider whether there may be some rural bias inherent in the program that unfairly favors rural over urban citizens.

## Is There a Rural Bias?

To reflect more on the evidence from the above figures, the fact that there is a higher *rate* of participation in the Bolsa Família program in rural areas is not, by itself, a sign of bias. In fact, there is only evidence of bias if it is possible to show that the rate of participation among the *poor* in each region is largely different. With the individual-level data available in this survey, it is possible to do better still with a multivariate analysis of the factors that lead to participation in Bolsa Família.

There are several other factors to consider when assessing whether there is a rural bias in the

<sup>4</sup> 88.09% (weighted) of respondents in the sample live in urban areas, reflecting a reality in which the Brazilian population has become highly urbanized over the last half century.

Bolsa Família program. Primarily, it is important to focus on eligibility thresholds to receive benefits. These thresholds depend on *per capita* household income. Therefore, holding all else equal, larger households should be more likely to receive cash payments. Likewise, households with a lower monthly income will be eligible for participation at a higher rate on average. These threshold variables may well differ across urban and rural areas and therefore must be taken into account.

Because education is highly correlated with income, parents with more education should be less likely to need government assistance.<sup>5</sup> It may be that age and gender will also predict a need for government assistance. Although Bolsa Família is not exclusively for those with children, it provides larger benefits (available at higher income cutoffs) for families with young children at home, thereby providing further incentives to participate for younger beneficiaries.<sup>6</sup> Moreover, because of frequent scenarios where a single mother raises her children alone, more women may report participation in Bolsa Família than men.<sup>7</sup> Race of the respondent may also predict participation given the tendency for white Brazilians to earn more than their fellow citizens.<sup>8</sup>

Additionally, it may be that the high degree of association between President Lula and Bolsa Família leads his supporters or his party's supporters (PT sympathizers) to procure

government assistance at a higher rate.<sup>9</sup> Furthermore, individuals who support an active role for government in society may also look to receive government support; conversely, those who reject government intervention in society may actively avoid participating in a government welfare program.<sup>10</sup>

**Figure 5.** Weighted Standardized Effects on Probability of Reporting Participation in Bolsa Família in the Last Three Years, 2010

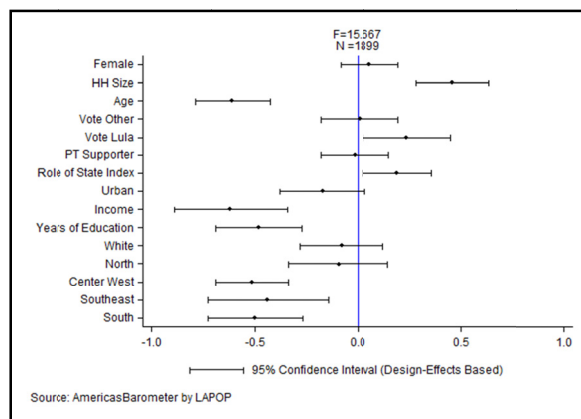


Figure 5 presents results from a design-corrected logistic regression model that controls for these variables and for urban/rural status and region of residence to analyze whether there is any bias evident in the probability of Brazilians reporting participation in Bolsa Família over the last three years.<sup>11</sup> The dots represent the point estimates of standardized coefficients and the bars show the 95% confidence intervals for those coefficients. If

<sup>5</sup> Respondents in each successive level of education response category in the AmericasBarometer survey (i.e. primary, middle, secondary, university, and post-graduate) report a higher mean level of income than do those in lower-level education categories.

<sup>6</sup> For a detailed description (in Portuguese) of the program see the Brazilian Ministry of Social Development's webpage for Bolsa Família: <http://www.mds.gov.br/bolsafamilia/>

<sup>7</sup> Women who are not married or living with a partner in the AmericasBarometer survey have a mean of 1.50 children living with them at home whereas men with the same civil status have a mean of 0.80 children living with them at home. The difference of these means is statistically significant ( $t=5.50$ , design  $df=49$ ).

<sup>8</sup> In the AmericasBarometer survey, self-reported whites have a higher mean income category (3.09) than non-whites (2.56) – a difference that is statistically significant ( $t=5.42$ , design  $df=49$ ).

<sup>9</sup> 84.51% of respondents (weighted) claim that President Lula is most responsible for Bolsa Família. Although the variable used here to predict Bolsa Família participation in 2007-2010 is vote choice in 2006, it very well may be that (unobserved) participation in Bolsa Família in 2006 (which, it has been argued, should predict voting for Lula in 2006) is highly correlated with later participation. Therefore, there may be dual causality between participation in Bolsa Família and vote choice for the 2006 election as reported in 2010.

<sup>10</sup> It may also be that receiving Bolsa Família helps recipients feel better about government and desire a more active role for the state in society.

<sup>11</sup> Northeast is the reference category for region. No Vote Cast is the reference category for vote choice. Analysis conducted with STATA v.11.1. The Role of State Index is an additive index created using responses to items ROS2 through ROS6 from the AmericasBarometer questionnaire.

the bar crosses the blue vertical line at 0.0, there is no statistically significant effect for that variable. When the dot and bar fall to the left of the line, there is a statistically significant negative relationship between that variable and reporting participation in Bolsa Família. When the dot and bar fall to the right of the line the relationship is significant and positive.

Do these results provide strong evidence of a rural bias in the Bolsa Família program? In short, they do not, though were we to apply a more relaxed standard of evaluating statistical significance (say, an 89% confidence interval), there would be some evidence of a rural bias at the margins. Rather, as expected, the strongest predictors of participation in the program are household income (in the negative direction) and household size (in the positive direction), providing some evidence that Bolsa Família functions according to its design.

Nevertheless, regional effects are clearly at work in the implementation of the Bolsa Família program. In accord with the descriptive data presented in Figure 1, this is to be expected, but the effects are quite strong even after taking into account factors such as income that are related to region. Residents in the Center-West, Southeast, and South regions are all much less likely than residents of the Northeast to receive government help in the form of cash transfers. The political ramifications of this skewed distribution of government assistance have only begun to be explored (see Hunter and Power 2007; Zucco 2008; Licio, Rennó, and Castro 2009).

The results also show that each additional year of education lowers the probability of an individual reporting participation in Bolsa Família over the last three years – an effect that is present even after controlling for household income. Moreover, older respondents had a lower probability of reporting participation in Bolsa Família than did younger interviewees.

Finally, those who report voting for Lula in 2006 and those who support government intervention in society are more likely to report participation in Bolsa Família, all else equal. It may be that these individuals are more enthusiastic about

the program and are therefore more likely to seek out assistance.<sup>12</sup>

The effects of gender, voting for a candidate other than Lula, supporting the PT, urban residence, race, and living in the North are statistically insignificant.

Still, region and urbanization are correlated in Brazil and it is difficult to separate their partial effects. What happens in the analysis if, for the sake of argument, regional controls are left out? Without controlling for region, the variable for urban becomes significant and negative, suggesting that residents of urban areas are less likely to have participated in Bolsa Família over the last three years than rural residents, all else equal. The main finding nevertheless remains the most important given the need to control for region in the Brazilian context.

## An Alternative Interpretation of “Rural Bias”

The above results suggest that rural residents, even after controlling for numerous other factors, might be slightly advantaged in terms of participation in Bolsa Família (though only if a non-standard and more generous threshold is used for statistical significance). When this result is considered *alongside* several other realities of the urban/rural divide, one could make a somewhat stronger case that the Bolsa Família program is biased against urban areas. In particular, the cost of living is generally higher in urban areas than in rural areas (which biases the program in favor of rural areas because the program provides a universally standard cash allowance), the program may provide lower benefits than previous poverty-reduction initiatives, and the universally applicable *per capita* income thresholds tend to discourage participation in urban areas (Economist 2010). While this perspective is not unreasonable, it also fails to take into account

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<sup>12</sup> Given that we cannot discount this alternative explanation, it would be premature to say that these results suggest the presence of some sort of political favoritism for those who voted for the incumbent. It may also be that the relationship is reversed with receipt of government benefits preceding and causing higher levels of support for Lula.

increases in the minimum wage, which may have greater consequences for urban residents (who are more likely to be formally employed) and might thus dissuade some urban residents against participation in the program in favor of formal employment.

The minimum wage in Brazil has increased from R\$200 per month to R\$510 per month (a 255% increase) over the course of the last eight years (*Folha de São Paulo* 2010; Futema, Freire, and Mignone 2003).<sup>13</sup> This policy shift favors urban areas where formal employment subject to national labor law is much more prevalent. In the 2010 AmericasBarometer survey 41.24% of Brazilian urbanites reported that they are formally employed compared to 23.01% of those in rural areas.

A common criticism of Bolsa Família has been that it would discourage people from working (Llana 2008). *However*, these increases in the minimum wage and the contemporaneous increase in formal employment opportunities in Brazil decrease the relative attractiveness of Bolsa Família. In other words, the limited benefits provided by the program arguably are not as appealing as the chance to work as a formal employee with the right to the benefits associated with having a *carteira assinada* (signed working papers). This might well discourage individuals from participating in Bolsa Família in urban areas compared to rural areas; it is not clear that this means the program is biased but instead simply less attractive in urban areas. In fact, it would suggest that the program functions well as a guarantee of a minimal *supplementary* living for impoverished Brazilians willing to abide by its conditions.

## Policy and Program Implications

Independent of the presence or lack of bias, Bolsa Família is not the sole solution to poverty in Brazil and individual households cannot rely on it to fully take the place of other sources of income. Still, observers can take some comfort in the results presented here that provide evidence

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<sup>13</sup> After accounting for inflation the real increase has been about 53% according to the *Folha de São Paulo*.

that the observed systematic demographic variation in the provision of targeted benefits from Bolsa Família, while favoring regional bases, do not unfairly favor either side of the urban/rural divide in Brazil.

However, there is potentially other cause for concern. Individuals who report voting for Lula in 2006 are more likely to have participated in the Bolsa Família program over the last three years. This political connection with the social welfare program does not extend to supporters of Lula's party (after controlling for presidential vote choice in 2006) and it may not withstand the upcoming elections in October, so it is still unclear whether this relationship signals a unique relationship between Lula and voters who have rewarded his policy efforts, or if it represents a controlling, non-representative interaction between the national government and the most vulnerable of Brazilians.

Additionally, the results presented here suggest that smaller families, individuals on their own, and especially the elderly may be disadvantaged with respect to participation in the Bolsa Família. If targeted welfare is the present and future of social policy in Brazil, it is vital that citizens outside the bulls-eye not be forgotten and that political motivations for distributing funds are kept in check. To the extent that the Bolsa Família is distributed broadly and without bias, citizens should be more likely to feel that the system itself is functioning in a fair and efficient manner.

## REFERENCES

- Economist. 2010. "How to get children out of jobs and into school; Brazil's Bolsa Família." *The Economist*. Available at: <http://www.economist.com/node/16690887> [Accessed August 2, 2010].
- Folha de São Paulo. 2010. "Câmara aprova e oficializa mínimo de R\$ 510, em vigor desde janeiro." *Folha de São Paulo*. Available at: <http://www1.folha.uol.com.br/folha/dinheiro/ult91u730748.shtml> [Accessed

August 24, 2010].

Futema, Fabiana, Felipe Freire, and Ricardo Mignone. 2003. "Lula reajusta o salário mínimo para R\$ 240." *Folha de São Paulo*. Available at: <http://www1.folha.uol.com.br/folha/brazil/ult96u47520.shtml> [Accessed August 24, 2010].

Hunter, Wendy, and Timothy J. Power. 2007. "Rewarding Lula: Executive Power, Social Policy, and the Brazilian Elections of 2006." *Latin American Politics and Society* 49(1): 1-30.

Licio, Elaine Cristina, Lucio R. Rennó, and Henrique Carlos Castro. 2009. "Bolsa Família e voto na eleição presidencial de 2006: em busca do elo perdido." *Opinião Pública* 15(1): 31-54.

Llana, Sara Miller. 2008. "Brazil becomes antipoverty showcase." *Christian Science Monitor*. Available at: <http://www.csmonitor.com/World/Americas/2008/1113/p01s03-woam.html> [Accessed August 3, 2010].

Rawlings, Laura B. 2005. "A New Approach to Social Assistance: Latin America's Experience with Conditional Cash Transfer Programmes." *International Social Security Review* 58(2-3): 133-161.

Zucco, Cesar. 2008. "The President's 'New' Constituency: Lula and the Pragmatic Vote in Brazil's 2006 Presidential Elections." *Journal of Latin American Studies* 40(01): 29-49.

Appendix  
Determinants of Receiving Bolsa Família Assistance in Last Three Years

	Coefficient	t-score
Female	0.058	(0.83)
HH Size	0.459*	(5.24)
Age	-0.607*	(-6.66)
Vote Choice	Vote Other	0.008 (0.08)
	Vote Lula	0.238* (2.25)
PT Supporter	-0.017	(-0.20)
Role of State Index	0.190*	(2.27)
Urban	-0.173	(-1.67)
Income	-0.617*	(-4.49)
Years of Education	-0.480*	(-4.62)
White	-0.080	(-0.79)
Region	North	-0.095 (-0.79)
	Center-West	-0.512* (-5.85)
	Southeast	-0.437* (-3.02)
	South	-0.497* (-4.33)
Constant	-1.412*	(-14.60)
F(15, 35): 15.67		
Num. Obs.: 1,899		
Note: * p<0.05. Results of logistic regression using Taylor Series Linearization to calculate design-corrected standard errors. Coefficients have been standardized. The reference category for Vote Choice is "No Vote Cast". The reference category for Region is "Northeast".		