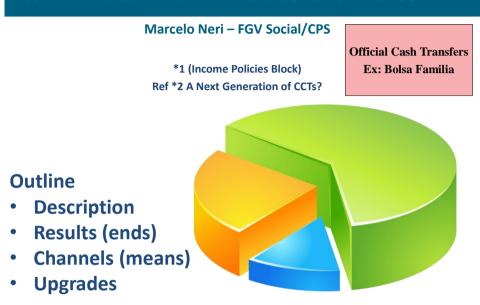
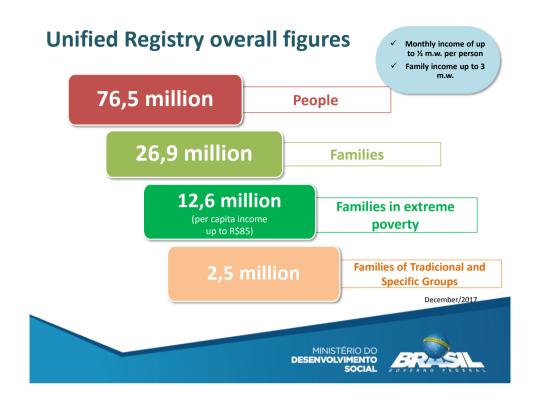
*Income Distribution, Distribution of Opportunities and Income Policies in Brazil: A Next Generation of CCTs?



What is the Unified Registry?

Operation Basis dor the Bolsa Familia and Other Programs. Mapping of Brazil's poorest and most vulnerable families, with a broad potential for public policies.



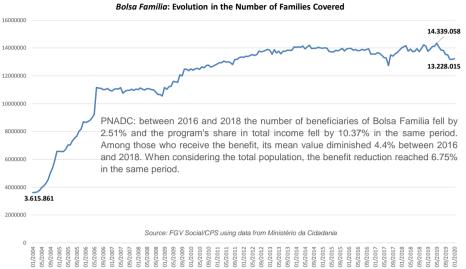


Unified Registry overall figures

Evolution of annual enrollment (million) - Brazil 2006-2018

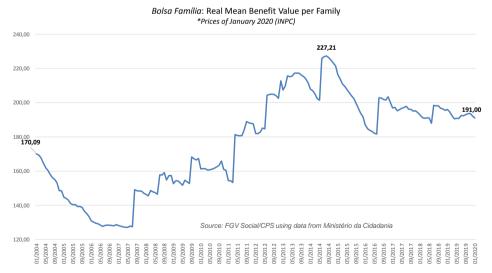


Evolution of the number of families in Bolsa Família



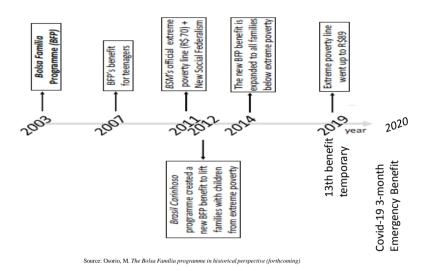
In net terms, around 1.1 million families were removed from the BFP between **May 2019** (historical peak) and January 2020, thus creating an annual line of 500,000 families who should be covered by the program but are still waiting for a chance to receive its benefits. Other estimates suggest that at least one million families were waiting to enter in the BFP in 2019.

Real Mean Benefit Value per Family



Our estimates on PNAD reveal that between 2014 and 2015, a period in which the economic recession walked hand-in-hand with accelerating inflation, the income from the BFP fell, in average, 13.61% for the total population, and 12.44% for the poorest 5% Brazilians. This reduction in the income from the Family Grant for the most vulnerable Brazilians contributed to almost half of their loss in per capita household income – a fall of 14.22%.

Historical evolution of the Bolsa Família programme



Bolsa Família Program

An **automated mechanism** is responsible for the selection of families, with data provided by the Unified Registry.

Eligibility criteria:

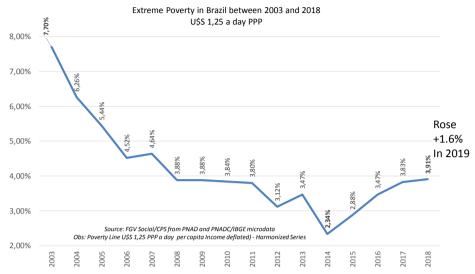
- Families with monthly income per capita equal or lower than R\$ 89,00 (extreme poverty situation)
- Families with monthly income per capita from R\$ 89,01 to R\$ 178,00 (poverty situation)

The received value depends on the family's **composition** and **income**.

April 2019: Announcement of 13th Payment of BFP

April 2020: Covid-19 3- person HHs Emergency Benefits R\$ 600 for 1-person HH and R\$ 1200 for the rest (87% of beneficiearies (it multiplies by 6,1)

Extreme Poverty in Brazil between 2003 and 2018



Between 2014 and 2018, the income of the poorest 5% in Brazil fell by 39%. The number of people under the extreme poverty line increased by 71.8% in this period – adding 3.4 million people in this group. see

https://cps.fgv.br/en/featured/booming-misery-brazil-country-has-registered-increase-67-number-people-living-extreme https://cps.fgv.br/en/featured/cuts-bolsa-familia-program-and-escalation-extreme-poverty-brazil

Conditionalities

Objective: encourage the exercise of basic social rights

Health

- Follow-up of vaccination, development and growing calendar of children younger than the age of 7;
- Prenatal care for pregnant women.

Education

- Monthly school frequency of a minimum of:
 - 85% for children from the ages of 6 to 15;
 - 75% for teenagers from the ages of 16 to 17.

April 2019: Announcement of Technical Education Benefit (R\$ 48) for those between 18 and 29 years of age enroled

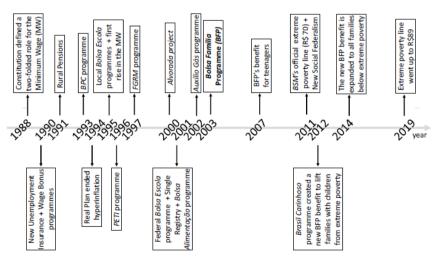




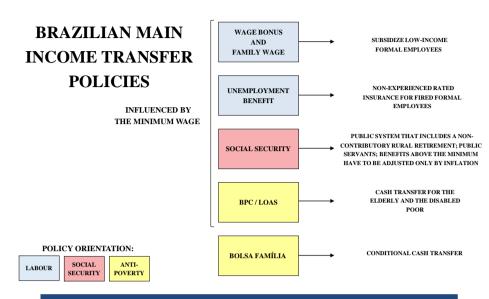
Basic Benefit R\$ 85 (changed to 89,00 and the other benefits as well)	Variable Benefit Ages 0 -15 R\$ 39 (up to 5 per family)	Variable Benefit Pregnant Women R\$ 39 (up to 5 per family)	Variable Benefit Nursing Mothers R\$ 39 (up to 5 per family)	Variable Benefit Teenagers R\$ 46 (up to 2 per family)	Benefit for the Overcoming of Extreme Poverty
Paid to extremely poor families (monthly income per person up to R\$ 85).	Paid to families with a monthly income up to R\$ 170 per capita, granted that they include children or teenagers with ages from 0 to 15 years.	Paid to families with a monthly income up to R\$ 170 per capita, granted that they include pregnant women. Nine monthly installments. Paid only if the pregnancy is identified by the health sector.	Paid to families with a monthly income up to R\$ 170 per capita, granted that they include children with ages 0 to 6 months. Six monthly installments. The child needs to have its data included in the Unified Registry up to the age of 6 months.	Paid to families with a monthly income up to R\$ 170 per capita, granted they include teenagers between the ages of 16 and 17 years.	Paid to Bolsa Família families that continue to have a monthly income per capita lower than R\$ 85, even after receiving the other benefits. Calculated according to the income and quantity of people in the family.

Social Federalism 1.0, 2.0 & 3.0

Historical evolution of the main cash transfers in Brazil since the 1988 Constitution



 $Source: Osorio, M.\ The\ Bolsa\ Familia\ programme\ in\ historical\ perspective\ (for the coming)$



What is the most effective combination of income policies?

Overall Results Optics Overall Results Optics BROADER IMPACT ASSESSMENT: Beyond Targeting

Prosperity mean income (not only GDP but also Household Surveys) Equality Looking at the distribution between individuals and

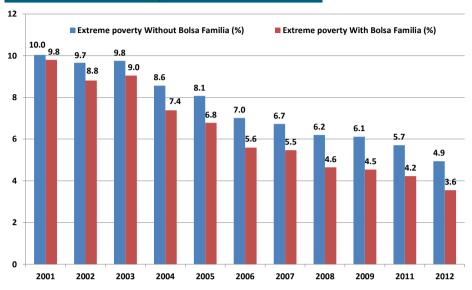
social groups.



perception.

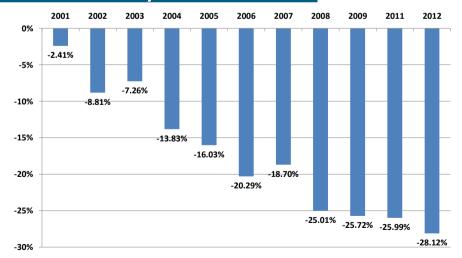
Impact of Bolsa Familia on Extreme Poverty: 2001 to 2012

Poverty



Source: SAE from PNAD/IBGE microdata

Impact of Bolsa Família on Extreme Poverty: 2001 to 2012



■ Bolsa Familia Impact on Extreme Poverty (%)

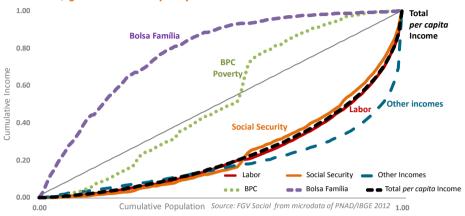
Source: SAE from PNAD/IBGE microdata

Bolsa Família Impact on Income Inequality

Equality

Without Bolsa Familia Extreme Poverty would rise 36%

The concentration curve of the Bolsa Família differs from other sources of income = Each R\$ generates more Equality



^{*} How well targeted is a program. When it covers the poorest citizens, its value goes to -1. When it covers the richest citizens, its value reaches 1. In 2018, the Concentration Index for the Bolsa Família was -0.6408; for the BPC -0.079; for other social programs 0.0727; for social security 0.5489 and for all incomes combined 0.5451.

Which source of income (program) contributed the most to growth? And What was the Social Benefit per R\$ Spent?

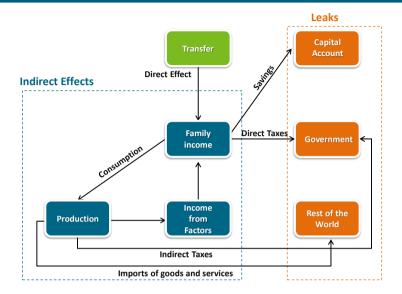
Contribution of Income Sources to Growth by Income Groups in annual percentage points.

2001-12	A Mean	B 5% Richest	C 40% Poorest	D 10% Poorest	Targeting C/A	Targeting D/A
Labor	<i>2.75</i>	1.99	4.27	2.97		
Bolsa Família	0.10	0.00	0.83	3.29	8,3	32,9
ВРС	0.06	-0.06	0.28	0.16	4,67	2,67
Social Security	0.74	0.32	0.89	0.23	1,20	0,31
Other	0.00	-0.02	0.11	0.14		
Total	3.64	2.23	6.38	6.80		

Source: PNAD/IBGE microdata

Prosperity

Social Accounting Matrix and (SAM) the Circular Flow of Income obtained with the expansion of a cash transfer



Prosperity

Multiplier Effects of social transfers on:



Source: Neri, Vaz e Ferreira (2013, Bolsa Familia orange book) from SAM (Social Accounting Matrix) 2009

Prosperity

Multiplier Effects * of social transfers on Families' Consumption:

Prosperity Effect:

As we have seen in 10 years of existence of the Bolsa Família, every real spent on it impacted inequality more than any other public program.

Due to Bolsa Familia's greater capacity to reach the poorest that consume most of their income, the spin provided by each real transferred through it in families' consumption is higher, 2.4 against 1.34 of unemployment insurance and 0.65 of social insurance.

I.e, the program brings more equality and with it growth in consumption.

Source: Neri, Vaz e Ferreira (2013) from the MCS of 2009

* The multiplier effect assumes the existence of idle capacity

Sensibility

Give a grade from **0 to 10** to your **life satisfaction**



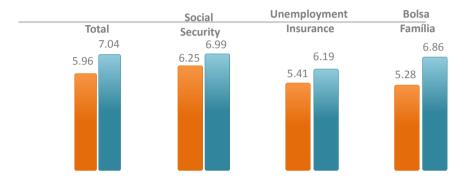
From the Gallup World Poll we learned that in no other country people are less sensitive to material conditions than in Brazil.

Official Social Transfers and Changes in Life Satisfaction

"Bolsa Família beneficiaries were those with lowest grade of past happiness (5 years before), reflecting higher poverty rates among program beneficiaries"

"Present happiness is closer between beneficiaries and non-beneficiaries"

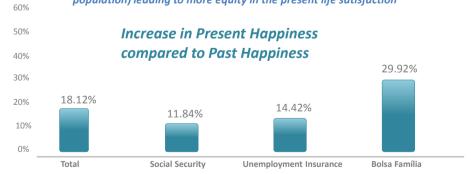
Past X Present Happiness



Source: IPEA October 2012

Official Social Transfers and Chances Gains in Life Satisfaction

"Bolsa Família beneficiaries showed the biggest hike in happiness compared with five years before (29.9% vs. 18.1% of the total population) leading to more equity in the present life satisfaction"



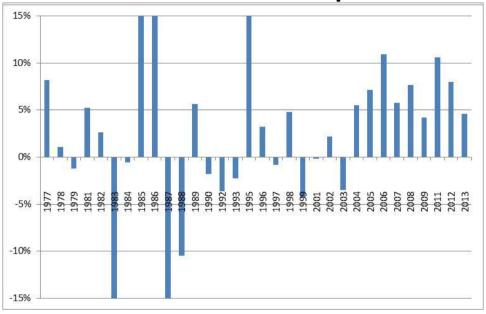
"Comparing people with the same income today (in adittion to gender, age, marital status), receiving the Bolsa Família is associated with gains in present life satisfaction of 0.41 points compared to past life satisfaction*."

Source: IPFA October 2012

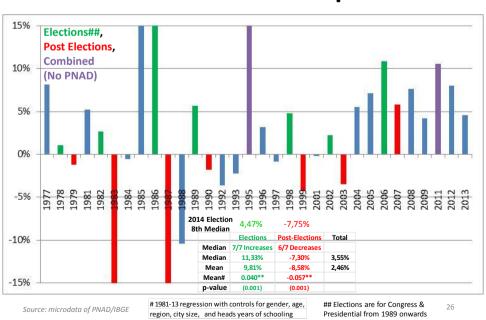
*Vis a vis non-beneficiaries, does not imply causality

Instability

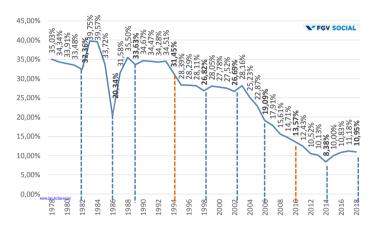
Median Income Real Per capita Growth



Median Income Real Per capita Growth



Poverty (P⁰) and Elections



Fonte: FGV Social/CPS a partir de microdados da PNAD, PNADC Trimestral e PNADC Anual/IBGE. A linha de pobreza é a da FGV Social, cujo valor em Agosto de 2018 corresponde a 233 reals mês por pessoa.

The annual variation of the purchasing power of PBF was -14.19% in 2015, 0.76% in 2016; -1.87% in 2017; 2.53% in 2018. Losses in 2019 would have reached -1.64%. Or -9.2% without the 13th benefit

Difference in Difference Per Capita Income Equation

*Electoral Cycles

Ln Y = g0 + g1*d Electoral + g2*dVotes + (D-D)*dElections*dVotes + other controls

Votes = Above 15 Years of Age

Electoral = Dummy for Year of Elections

Table 4 - Equation of the Per capita Household Income various sources

	All sour	Main work		Social security		Social Programs		
1) Votes	0.4192	**	0.3125	**	0.5129	**	0.2857	**
2) electoral	0.0611	**	0.0316	**	0.1051	**	0.2257	**
3) Votes * electoral	0.0136	**	0.0127	**	0.0274	**	0.0343	**

^{**} Significant at 95%

Source: CPS/FGV from PNAD/IBGE microdata

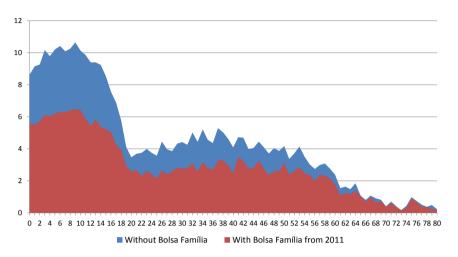
Obs: controlled by sex, ethnicity, head of the household, educational level, size of the city, migration and

Social programmes present a stronger Electoral Cycle

Type: Fine Tunning with Electoral Cycle

Source: microdata of PNAD/IBGE 1992-2006

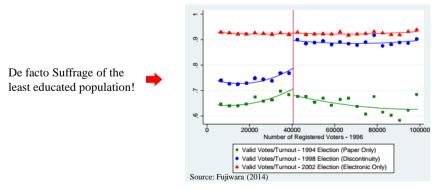
First Approximation Impact of Bolsa Família Program in reducing extreme poverty rate by age (%)



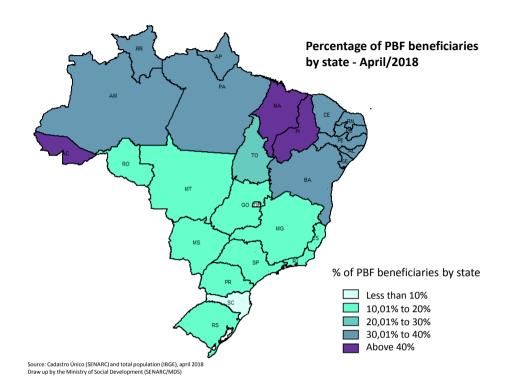
The Introduction of Electronic Vote (Might explain later inequality reduction)

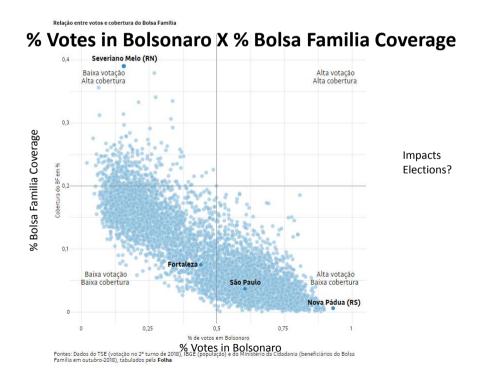
Impacts of the adoption of the electronic ballot box in Brazil on the political participation of less educated voters and pro-poor policies

Results: lower percentage of invalid votes, especially in municipalities with higher illiteracy rates, and higher public health spending (34% gain in 8 years)



Identification hypothesis: 1994 only paper voting was used; 1998 municipalities with more than 40,500 voters received the electronic ballot boxes, and finally in 2002 all used electronic voting.

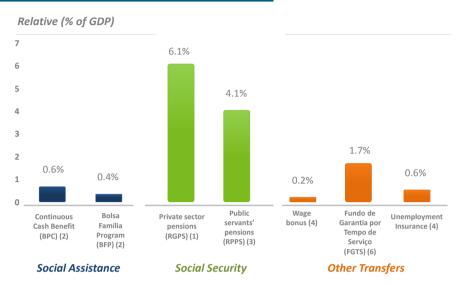




Fiscal Sustainability

Government social transfers

Brazil (2009)



Sources: (1) Ministério da Previdência Social. Anuário Estatístico da Previdência Social 2010. Brasilio: MPS/Dataprev, 2011; (2) Secretaria de Avaliação e Gestão da Informação (SAGI/MDS).
(3) Matriz de informação social; Secretaria de Gestão Pública (SEGEP/MPOG). (4) Ministério do Trabalho e Emprego. Caixa Econômica Federal. Demonstrações Contábeis do FGTS

Fiscal Sustainability

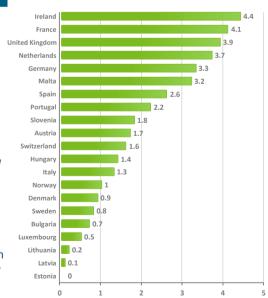
Targeted benefits/GDP (%) - 2007

In Brazil, the Bolsa Família and the BPC spend, together, about 1% of GDP.

In Europe, most countries spend more than that.

In 2012, the American federal government disbursed **U\$315** billion – about **2% of its GDP** – in these programs.

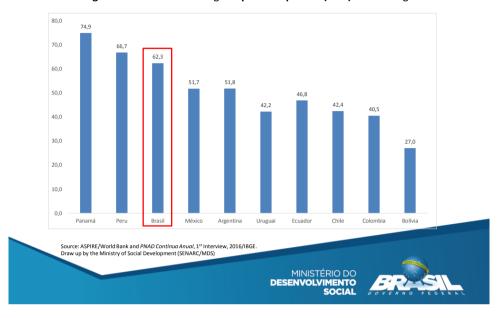
Bolsa Familia covers 25% of Brazilian Population at a cost of 0,5% of GDP **does a lot spending little**



Source: OIT. World Social Security Report 2010/11: Providing coverage in times of crisis and beyond. Genebra: OIT, 2010.

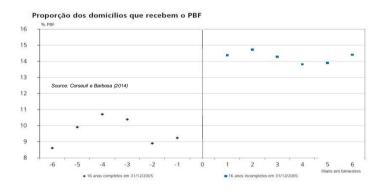
CCTs in Latin America

Percentage of beneficiaries among the poorest quintile (20%) – excluding CCTs the benefit



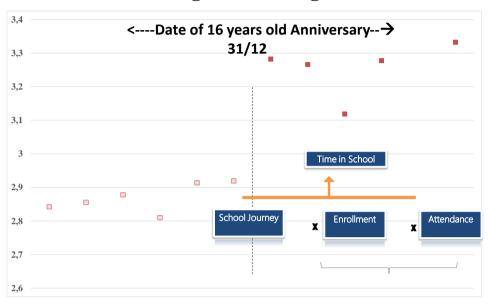
Testing Conditionalities

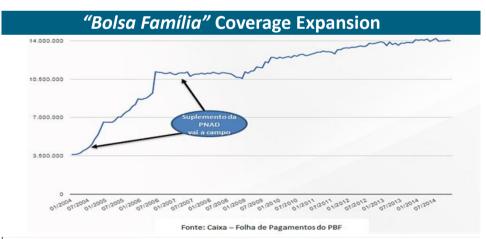
Inspiration to Test Identification Hip by Age Discontinuity



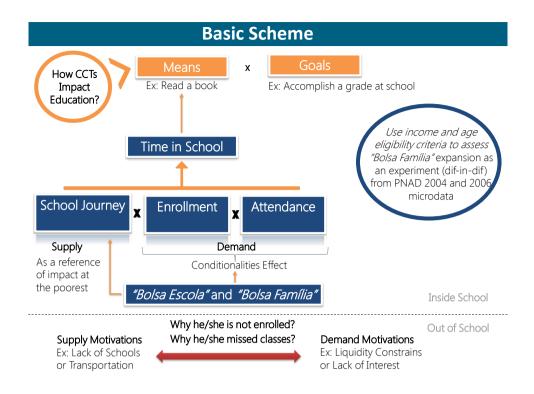
Source: Neri and Osório (2016)

Time in School and Age Elegibility Discontinuity among Income Elegible





Time in School - Mean and Inequality - Variation between 2004 and 2006 (%)									
Age (♥) & Variable (▶)	Time in School	Enrollment Index	Attendance I.	School Journey					
20% Poorest	4,81%	2,00%	1,81%	0,93%					
16 years (Incomplete 31/12)	-6,47%	-3,44%	-11,46%	-0,64%					
16 years (Complete 31/12)	1,52%	6,23%	-0,07%	5,50%					



Testing CCTs Impact on Time in School (sign of the coefficient of interest)

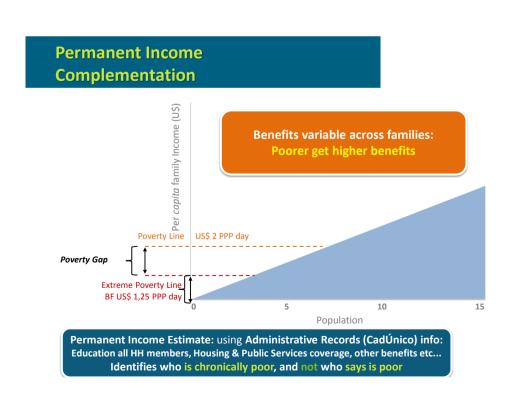
	Eligibility Criterion Tested (►)	Income	Age
I	Dependent Variable (♥) & Eligible Group (▶)	6 to 15 years	16 years – Low Income
-	Time in School	+	+
Schoo	Enrolled in School	IDITIONALIT	IES EFFECT
Time in School	Meets School Attendance Conditionalities	+	+
	Limited to the Minimum of 4hrs per day in School	-	1
Reasons to Drop or Not Go to School	Not Enrolled for Reasons of Demand (All)	-	1
	Extrapolated Absence Limit for Reasons of Demand	+	•
R	egressions with interactions controlling for income continuous, sex, color, age, schooling	, migration and State;	
	Source: FGV Social/CPS with PNAD/IBGE microdata		

Social Federalism 3.0



Família CaRIOca 700.000 people in the City of Rio

Add Forces & Divide Labor to Multiply Results and to Make a Difference



Inovation on Payment Systems

- Local Complements to Federal Bolsa Família (Knowledge Exchanges)
- Completes Income towards the Poverty Line (Social Federalism)
- Estimated Permanent Income (Multidimensional rationale for Weights)

Diversification of Income Measures & Endogenous Exit Doors

- Use of International References (SDGs) w/ own targets (P2&CadUnico)
- Connect to BPC (Continuous Cash Benefits Disable & Elderly Poor)
- Broaden the scope of actions to low formal earnings subsidies
 (Abono Salarial & Salário Familia between 1 and 2 minimum wages) & transition rules such as those in EITC or RMI (Revenu minimum d'insertion)

Inovations in Conditionalities:

Constructs on top of Bolsa Família & Local Social Services structures

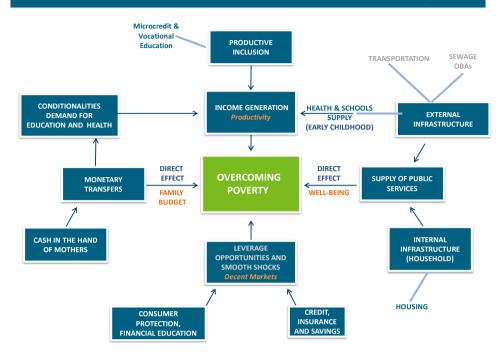
- Parents Engagement (School Meetings on Saturdays)
 - Transmit the importance of education
 - Compensate part of inter-generational gap
- Incentives to Students Performance
 - Profficiency Performance Premium Primary Education
 - Rio State (Youth Savings Incentive Mechanisms)
 - Alignment Incentives (Teachers, Parents & Students)
- Early Childhood Education
 - Evaluate cognitive & non cognitive impacts (advocacy)
 - Supply: Poor Kids are First in Line

Proposals in Conditionalities:

- Indexing Bolsa Familia Benefits
- Facilitate Voluntary Exit with Automatic Reentry of the Program
- Vouchers for Technical Education for Bolsa Familia Beneficiaries
- Bolsa Marrom (Output Based Aid (OBA) subsidies for sewage supply)
- Mothers Key Delivery Role & Active Search of Students Without Mothers
- Financial Education linked to the 13th benefit payment

Innovations in the Payment System for Low Income Families Bolsa Família \sim ← Parcelas 7 Future **Payments** Consultation PARCELAS LIBERADAS JUNHO 2015 MAR **BOLSA FAMILIA** Benefício Depositado Em Warnings of Problems with Conta conditionalities Benefício de 06/2015 creditado em sua Conta PARCELAS BLOQUEADAS CAIXA Fácil e disponível para saques e ΔRR BOLSA FAMILIA/JOVEM 2015 PARCELAS CANCELADAS BOLSA FAMILIA/JOVEM R\$ 60 2015 **Bolsa** PARCELAS PAGAS Família Ver Parcelas BOLSA FAMILIA/JOVEM R\$ 70 ∇ 0 Create Savings Funds as in private pension for Bolsa Familia? Avoid touching in spreads Taking advantage of 13th payment to introduce financial education initiatives to increase savings BOLSA FAMÍLIA BENEFICIARIES HAVE 18%+ CHANCES OF HAVING CHECKING ACCOUNT OR SAVINGS

Bolsa Família Channels to Overcome Poverty (Means Approach)



A Brief Literature Review on the Bolsa Família Program

- ➤ In addition to positive impacts on poverty and inequality (e.g. Neri, Siqueira, Nogueira, & Osorio, 2018; Campello, 2013; Paiva, Falcão & Bertholo, 2013; Souza & Osorio, 2013; Neri, 2017; Sawyer, 2007 Skoufias, Nakamura & Gukovas, 2017; Barros, Carvalho, Franco & Mendonça, 2010; Hanlon, Barrientos, & Hulme, 2010).
- > The program **positively affected subjective wellbeing and social bonding** of its beneficiaries (e.g. Molyneux, Jones, & Samuels, 2016).
- ➤ Moreover, evaluations also show **positive effects in health** (e.g. Alves & Cavenaghi, 2013; Rasella, Aquino, Santos, Paes-Sousa & Barreto, 2013; Santos et. al 2013) **and education** (e.g. Neri & Osorio, 2019; Craveiro & Ximenes, 2013; Cereno, Silva & Proença, 2013; Silveira, Campolina & Horn, 2013; Cardoso & Souza, 2004) **linked to the program's conditionalities.**
- > Finally, there is evidence about the program's relationship with the labor market, including its **impacts on adult labor supply, which discard a "laziness" effect** (e.g. Oliveira & Soares, 2013; Rêgo & Pinzani, 2013; Pedrozo, 2010; FogueI & Barros, 2010).
- ➤ Critiques of the CCTs' capacity to break the intergenerational poverty cycle and/or engender structural change are also part of the academic literature (e.g. Jones, 2016; Saad-Filho, 2015; Hall, 2008; Ghosh, 2011)

*Cash Transfers, Intra-Household Redistribution and Health Perceptions

Marcelo Neri

This paper studies the formation of self-reported health perceptions taking advantage of new cash transfer programs occurred in Brazil as a policy experiment. First, we gauge the effect of changes in per capita income associated with exogenous changes in official income transfer policies to the low-income elderly population on the reported perceptions of this group health status using a difference in difference estimator. We show a distinct gain in the health conditions of the elegible group consistent with the existence of a direct income effect with a casual interpretation implied. We also use this approach to study the evolution of perceptions about access and quality of health services. The results do not show any sizeable change that could explain the self-reported health status changes observed.

Second, we show that true self-reported health status (SRHS) is higher than the health status reported by other household members. Nevertheless, the improvement of the poor elderly health evaluation observed is not affected by the identity of who answer the question

Finally, we test altruism through the redistribution of resources within households by investigating how individual health perceptions changes are associated with the eligibility of different household members to new official income transfers. The results show an improvement of health perceptions much smaller for the indirect beneficiaries of transfers than those observed for direct beneficiaries living in the same households. This evidence has potential policy implications since increasing transfers to the elderly poor in Brazil did not seem to generate sizeable externality to other household members individual well-being levels. The fact that the elderly live in small families also diminishes the derived welfare impact from new transfers observed.

Perceived Health Status 4.0 3.8 3.5 3.0 Source: PNAD 1998-2003/IBGE microdata 3.0

Contrary to the comparison between specific age groups status in 1998 and 2003, the cohort analysis assesses the changes occurred among individuals from the same generation. It means to compare the average self-reported health status of individuals who, for instance, have reported bed-rest in 1998 when they were 56 to 60 year old, with the number of people who also reported that in 2003 and who were 61 to 65 years old. In graph 1, firstly, we observe a significant decrease in the average self-reported evaluation of health as we move along the age distribution, what would suggest the natural effect of the aging process that is associated to the accumulation of degenerative chronic problems.

4e a

99

9 g

36 a

26 8

Testing Intra Household Redistribution

```
v_1 = r_{in}^{n,s} x_{rin}^s

- Individual Utility Function;
r_{in} Individual Income (deducting intra-family transfers);
- Family Income (adding intra-family transfers);
- altruism degree within the household.
```

Exogenous income changes promoted by the Brazilian Federal Government will provide a way to indirectly test the level of altruism within the household by using the same structure of the empirical models above plus two interactive terms if the individual himself is elegible for the new income transfer introduced between the initial and the final moments and if someone in his family living in the same household is eligible for this policy. If there is perfect altruism among living members within the same household the coefficient that should matter is this last indicator.

Differences-in-differences of individual SRHS

Multinomial Ordered Logit		A) Self-Reported			ted by Other	C) Reported - Total Sample (A+B)		
			Standard		Housen	old member	Standard	
			Estimate	Error	Estimate	Standard Error	Estimate	Error
Eligibility	Elderly Poor		-1,4063	0.0064	-2,2004	0,0072	-1,8174	0.0047
Eligibility	Non Elderly Poor but lives with elderly poor		-0.2516	0.0057	-0,2285	0,0036	-0.2431	0.0030
Eligibility	Other case		-0.3115	0.0010	-0,2035	0,0007	-0.2680	0.0005
Eligibility	Non Elderly Poor doesn't live with elderly poor		0.0000	0.0000	0,000,0	0,000	0.0000	0.0000
Year	2003		-0.2042	0.0012	-0,2751	8000,0	-0.2696	0.0007
Year	1998		0.0000	0.0000	0,000	0,000,0	0.0000	0.0000
Eligibility*Year	Elderly Poor	2003	0.5458	0.0091	0,3803	0,0104	0.5517	0.0069
Eligibility*Year	Elderly Poor	1998	0.0000	0.0000	0,0000	0,000	0.0000	0.0000
Eligibility*Year	with elderly poor	2003	0.1499	0.0083	-0,0312	0,0053	0.0090	0.0044
Eligibility*Year	Non Elderly Poor but lives with elderly poor	1998	0.0000	0.0000	0,000	0,000	0.0000	0.0000
Eligibility*Year	Other case	2003	0.1151	0.0013	0,1547	0,0009	0.1520	0.0007
Eligibility*Year	Other case	1998	0.0000	0.0000	0,0000	0,000	0.0000	0.0000
Eligibility*Year	Non Elderly Poor doesn't live with elderly poor	2003	0.0000	0.0000	0,000	0,000,0	0.0000	0.0000
Eligibility*Year	Non Elderly Poor doesn't live with elderly poor	1998	0.0000	0.0000	0,0000	0,000	0.0000	0.0000

living with individuals eligible to official income transfers (the elderly poor) with respect to those poor non elderly that do not live with eligible individuals. The other point to be noticed is that this external effect is smaller in magnitude than the one observed for the ones who receive themselves direct official income transfers. The estimated coefficient is less than one third than in those that receive directly the income transfers. The other columns, related to other samples defined by the identity of the questionnaire respondent, we get bigger differences between individuals that receive and those that do not receive the direct transfers. In the least relevant case of the health status reported by other household member there is no statistical difference, between those who do not live with eligible individuals and those who live with them but are not the direct beneficiaries of these transfers.

The results suggest an improvement in the true SRHS of poor non elderly individuals