

# The impact of Public Management Performance of Conditional Cash Transfer in Quality of Life in Brazil

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## Abstract

In developing countries, Conditional Cash Transfer (CCT) programs are a cornerstone of antipoverty efforts. Brazil holds the distinction of having the largest CCT program in the world. The Programa Bolsa Familia aims to provide short-term monetary assistance to poor and vulnerable households, but the receipt of transfers are conditional and based upon specific positive behavioral changes that target children. These conditions and others are put forth in an effort to breaking the intergenerational cycle of poverty. Under the federal system, however, it is the municipal governments which are ultimately responsible for implementing the program at the local level. Formal evaluation studies have been undertaken to assess the outcomes of Bolsa Família from the perspective of public policy. However, very few have examined how the program's institutional context affects program accomplishments. Of particular concerns are the public management challenges and opportunities that arise when implementing a federal program in a decentralized political system. How does the quality of management, at both the municipal level and in the inter-governmental coordinating structure, influence the effectiveness of the cash transfer program? Does efficient management matter in achieving the program's overall goal of improving the quality of life of local residents? What role does fiscal federalism play in the success of such a program that requires the coordination of multiple layers of government? In order to answer these questions, this paper uses complementary methodologies particularly Data Envelopment Analysis, multivariate regression, as well as document analysis. The study, which is based in Public Management Performance theories, uses data from 2007 covering municipalities in Minas Gerais, Brazil. The results draw attention to a number of important factors governing the influence of public administration in the quality of conditional cash transfer programs. First of all, the positive influence of the Public Management in the success of the program, which was the central hypothesis of the work, was highlighted as the main conclusion of this paper. Second, the positive influence of public managers has been reinforced by the presence of Social Policy Bureau which affects positively the outcome of the program. Finally, federal and state transfer can be interpreted as both an intergovernmental effort and a decentralization process important to accomplish the mission of the program. On the other hand, the findings showed several factors that could be limiting improvements in public manager's performance, among them the lack of control and accountability, and the lack of targeting. It is also concluded that the fiscal federalism accomplishes a double role in promotion of the society's well-being. It can positively support intergovernmental policies and programs, as reaffirmed by the importance of the transfers to improve citizens' well-being. But in contrast it can promote the fiscal protectionism in small municipalities and can induce them to lower effort both to raise proper tax revenue and to improve the quality of the public management.



# INTRODUCTION

Conditional cash transfer (CCT) programs are increasingly becoming a cornerstone of anti-poverty efforts in many developing countries (Heinrich, 2007; de la Briere and Rawlings, 2006). Some of the highly successful CCT programs, mostly in Latin America, includes *Oportunidades* (previously *PROGRESA*) in Mexico, *Red de Protección Social* in Nicaragua, *Bolsa Escola* (the predecessor of *Bolsa Familia*) in Brazil, *Programa de Asignación Familiar* in Honduras, *Familias en Acción* in Colombia, and *Solidario* in Chile (Nigenda and Gonzales-Robledo 2005; Rawlings and Rubio 2005; Villatoro 2005). CCT programs have also been successfully implemented on a large scale in Jamaica, Turkey, and South Africa (de la Briere and Rawlings 2006; Fiszbein et al., 2009).

The CCT aim to provide short-term monetary assistance to poor and vulnerable households, but conditioning the receipt of transfers on specific behavioral outcomes that target children. These outcomes include continued enrollment and attendance in primary and secondary schools, and consumption of health and nutrition services (Enrique, 2008).

Brazil holds the distinction of having the largest CCT program in the world. As of 2007, the *Programa Bolsa Família* (or Program Grant for Families) covered 11.1 million families or 46 million people – larger than the population of many nations (Lindert et al. 2007). Established in 2003, its main goals are to maintain income levels of poor families, ensure access to basic needs, and improve citizens' quality of life.

While other CCT programs are implemented by national governments, Brazil's *Bolsa Familia* relies on 5,564 municipal governments to carry out many aspects of the program (Lindert et al. 2007). To ensure that each city accomplishes program targets, as well as to control problems such as corruption, goal displacement, and interference from political parties, the federal and state governments established an inter-governmental management structures to coordinate the implementation of the program across different municipalities.

Formal evaluation studies have been undertaken to assess the outcomes of *Bolsa Familia* from the perspective of public policy. However, very few have examined how the program's institutional context affects program performance. Of particular concerns are the public management challenges and opportunities that arise when implementing a federal program in a decentralized political system. How does the quality of management, at both the municipal level and in the inter-governmental coordinating structure, influence the effectiveness of the cash transfer program? Does efficient management matter in achieving the program's overall goal of improving the quality of life of local residents? What role does fiscal federalism play in the success of such a program that requires the coordination of multiple layers of government?

To answer these questions, we assessed the implementation of *Programa Bolsa Familia* in 853 municipalities in Minas Gerais, which is one of the biggest states in Brazil. The study uses complementary methodologies specifically Data Envelopment Analysis, multivariate regression, as well as document analysis.

# LITERATURE REVIEW

# **Conditional Cash Transfer Programs and Poverty**

The popularity of CCTs as an anti-poverty tool can be traced, partly, to views that they represent a more politically acceptable approach to social assistance. Traditional cash transfer programs often meet considerable opposition from taxpayers as they are viewed as "handouts" to the poor (Lindert, 2006). With CCTs, such concerns have been addressed by making cash transfer conditional on the recipient displaying "desirable" behavior such as sending children to school, enrolling them in nutrition programs, and seeking preventive health care, among others. Thus, conditional cash transfers help transform the widely held



view of social assistance as a "handout" to a "social contract" that requires recipients to invest in activities that will ultimately bring them out of poverty (Fiszbein et al., 2009)

CCT programs expand the traditional social assistance goal of public welfare programs to include the newer function of social investment (Morley and Coady 2003; Lindert et al. 2006; Enrique, 2008). In this light, CCTs can be seen as representing both a short- and long-term approach to poverty reduction (Kakwani, Soares and Son, 2005).

In the short-term, these programs function as a social safety net that assist the chronic poor and vulnerable segments of the population in adjusting and coping with negative effects of various forms of shocks (Janvry, Sadoulet, and Vakis, 2008). By supporting income levels, these programs ensure that poor families meet their immediate basic consumption needs (de la Briere and Rawlings 2006).

As a long-term approach to poverty eradication, CCTs represent investments in human development (de la Briere and Rawlings 2006). Unconditional cash transfers may encourage dependency, unintentionally facilitating the inter-generational transmission of poverty. By tying cash transfers to specific conditions such as consumption of health and education services by children, CCTs empower the poor and build the capacity of future generations to break out of poverty (Son, 2008; Laura and Gloria, 2005).

These programs, thus, recognize demand-side barriers to the consumption of services that are crucial to human capital formation, including, among others, the opportunity costs of schooling in terms of lost income from child labor (de la Briere and Rawlings 2006).

From another perspective, providing cash, rather than in-kind transfers, minimize effects on individual welfare of recipients. Recipient families can choose to spend the money according to their preferences, rather than being forced to consume a particular basket of goods (Laura and Gloria, 2005; Gustavo and Luz María 2005).

# **Empirical Evidence and Factors Contributing to Success**

As a short-term anti-poverty tool, studies show that conditional cash transfer programs reduce monetary poverty of the beneficiaries in a significant way. In the case of *Oportunidades* in Mexico, 30% of beneficiaries experienced a decline in income poverty, according to Gustavo and Luz María (2005). Maluccio's (2005) randomized evaluation of *Red de Protección Social* in Nicaragua showed that among households affected by a coffee crisis, beneficiaries of the program were able to maintain pre-program expenditure levels, in contrast to a 22% decline among non-beneficiary households in the same region.

Several studies demonstrate the positive outcomes of CCTs, all of them with direct or indirect impact in quality of life. In the case of Brazil, a simulation study by Bourguignon, Ferreira, and Leite (2003) found that the *Bolsa Escola* Program (a predecessor to Bolsa Familia) significantly increased the number of children in school.

They also promote effects on the self-esteem, on the reordering of the domestic space, on the women' access to the public space and promoting improvements in the socioeconomic indicators and decrease of the poverty and inequality of income in Brazil (POCHMAN, 2007; SOARES *et. al.*, 2007; LAVINAS, 2007; MEDEIROS *et. al.*, 2007; NERI, 2008; BRONZO, 2008).

Conditional cash transfer programs also have positive effects on efforts to promote gender equality (Moreira et. al. 2010).

Maluccio (2005) found that child labor among girls in treatment areas decreased by 10%. Son (2008) concluded that, aside from improving school enrollment rates among girls, CCT programs in Mexico and Nicaragua had an additional effect of improving women's status within the household, given that the program channeled the transfers to female household heads.



Evaluation studies of CCT programs point to a number of factors that affect the success of these programs. First is the issue of targeting. In the case of Malawi, Gustavo and Luz Maria (2005) note that poor people are generally unregistered in the public social security system, and identifying them requires using local community knowledge. This increases the possibility of political clientelism, as local politicians divert benefits to political supporters leading to large leakage of benefits to the non-poor<sup>i</sup>.

The second possible issue is the cash distribution system. It is true that distribution systems have greatly improved with the use of local banks and debit cards. The problem is that, especially for poor in far-flung areas, travel to banks confined mostly in the main towns is an additional cost (Gustavo and Luz María, 2005).

Third, monitoring of beneficiary performance with regard to fulfilling conditionalities can be an issue considering the widely diverging technical capacity across countries. The quality of monitoring ranges from basic activities such as random audits of school and health providers to check student performance records and health service utilization in Colombia, to more comprehensive approaches such as the quarterly household survey in Argentina (de la Briere and Rawlings, 2006).

Fourth, empirical evidence suggests that widespread publicity about program benefits and rules matters – the poor who have access to adequate information about particular welfare programs are able to extract greater resources and better performance from political agents and service providers (see Strömberg, 2001; Besley and Burgess, 2003; Janvry, Sadoulet, and Vakis, 2008).

Fifth, and related to the issue of transparency, is the need for accountability and effective conflict resolution mechanisms. These tools range from simple letters outlining why an applicant was rejected, as well as information on the appeals process, to village-level public hearings, and more formalized mechanisms such as citizens' charters and state-level ombudsman (Janvry, Sadoulet and Vakis, 2008).

Sixth, there is unanimous agreement that the involvement of mothers in the program is key to the success of CCTs. Accordingly, in terms of intra-household allocation decisions, women tend to prioritize children's needs (de la Briere and Rawlings 2006). Others argue that mothers generally contribute to honest monitoring and evaluation of results (Moreira, Almeida e Ferreira, 2010; Lindert, 2006).

Finally, sustainability is an important concern. A number of CCTs rely on donor resources for a substantive portion of their budgets. At some point, the share of public funds in CCT budgets needs to be increased to improve the long-term sustainability (Gustavo and Luz María, 2005).

# The Role of Public Management

The role of public management in the success of CCTs has received limited attention in existing studies. This is quite surprising considering that issues of targeting, data management, monitoring, transparency, and accountability, depend, to a large extent, on the quality of management in public organizations involved in the implementation of the program.

Evidence of the importance of public management is the very substantial administrative cost of implementing the program, at least, in the initial phase of implementation (Son, 2008). In Mexico's *Oportunidades*, for example, administrative costs ate half of the budget when the program began in 1997. However, once the system was set up, administrative costs went down to 6% by 2003 (Lindert, Skoufias and Shapiro, 2005). Agencies involved in the program have to quickly build their capacities in information dissemination, data management, registry administration (including update) including elaborate systems of cross checks to verify eligibility, monitoring of program performance,



and implementation of conflict-resolution mechanisms (Janvry, Sadoulet and Vakis, 2008; Lindert, 2006).

One explanation for the inadequate attention paid to understanding the effects of public management on CCT outcomes in the extant literature is the traditional bias in policy and evaluation studies of treating the issue of management as a secondary concern. This is a probably a consequence of the difficulty of studying the "black box" of implementation which requires in-depth, qualitative analysis. Donors may also be more interested in directly verifying program impacts through large-*n* quantitative evaluation studies that compare control and treatment groups.

Why would management matter? In the U.S. public administration literature, various aspects of management including leadership, managerial tools, managerial strategies and values, integration, and administrative practices and processes, have been shown to affect agency performance and outcomes in various policy and service areas including education (Meier and O'Toole 2001), early care services (Selden and Sowa 2004), health and human services (Moynihan and Pandey 2005; Provan and Milward 1995), welfare reform (Sandfort 2000), employment training (Heinrich 2000), and law enforcement (Nicholson-Crotty and O'Toole 2004), CCT (Monteiro, Ferreira, Teixeira, 2009) among others. For Coggburn and Schneider (2003), management capacity of governments has direct tangible impacts on the overall social and economic well-being of citizenry.

In this study, we propose that high quality management in public agencies involved in the implementation of CCTs will positively affect the outcomes of such programs by efficiently utilizing budgets to improve targeting, registry, and ultimately, by increasing the number of people who actually benefited from the program.

# The Issue of Decentralization

For some observers, the decentralized system offers a number of advantages. Traditional justifications for decentralization and local government autonomy include improved allocative efficiency, increased responsiveness, and greater capacity of citizens to extract accountability because of proximity of local governments (Oates 1972, Oakerson 1998). For CCTs, an additional advantage of decentralized implementation is that local governments have more knowledge about local conditions and have the potential to correctly identify and locate beneficiaries, specifically those who are highly vulnerable to shocks and in need of immediate assistance (Janvry, Sadoulet and Vakis, 2008). On the other hand, centralized implementation systems have been criticized for having opaque selection processes, poor capacity to monitor local outcomes, inability to enforce conditionalities, and absence of appeals mechanism (de la Briere and Rawlings 2006; Adato, 2000).

A complication rooted in the fiscal relationship between the central and local governments is the issue of principal-agent problem. Rodden, Eskeland, and Litvack (2003) pointed out that the structure of intergovernmental finance in decentralized systems may lead to fiscal malfunctioning. In particular, they showed that the willingness of higher level governments to provide bailouts and cover fiscal deficits of local governments creates a "soft-budget constraint" leading to a moral hazard problem. Because of expectations of fiscal bailouts from higher-level governments, local elected officials and bureaucrats have greater incentive to engage in poor fiscal practices.

Jimenez (2009) extended this view and argued that the moral hazard problem caused by fiscal transfer dependency can also lead local governments to under-invest in the quality of their administrative and management systems. Ultimately, the quality of local service delivery suffers because of poor management systems. Likewise, Treisman's (2001) empirical analysis of 166 countries showed that countries with more levels of government are more likely to provide poor quality public healthcare services and infrastructure. We expect local



governments which rely more on fiscal transfers from higher-level governments to have weaker management systems. Thus decentralization can have an indirect affect on the outcomes of CCTs through its effect on local government management quality.

# Programa Bolsa Familia: mechanics and institutional arrangement

The "Programa Bolsa Família" was designed to unify the existent transfer programs in Brazil, because it was diagnosed the existence of competitive and superimposed programs in their objectives and public-target, an absent general coordination of the programs, therefore generating the waste of resources, insufficiently allocated budget, absence of managerial planning of the programs and absence of effective articulation with other emancipative policies and other factors (NASCIMENTO, 2006; SILVA *et. al.*, 2007).

The program was instituted by the Law 10.836 that determine benefits to be destined to househouds that are under extreme poverty with the main goals of maintaining income levels of poor families, ensuring access to basic needs, and improving citizens' quality of life.

The poverty households are those with per capita income below R\$ 140,00 per month, and having in its composition pregnant women, nursing mothers, children and adolescents under 17 years.

Under the federal system, however, it is the municipal governments which are ultimately responsible for implementing the program at the local level and for monitor the accomplish of the conditionalities. The conditionalities are shown in Table 1.

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•	Enrolling children and adolescents aged 6 to 15 in regular		
Education	education;		
•	Respect the minimum of 85% of attendance of school.		
•	Realize the prenatal and regular doctor's appointments;		
•	Participate in educational activities in health and social		
Health	services;		
•	Keep the vaccination of children up to date;		
•	Attend children's regular medical appointments up to date;		
•	Maintain nutritional monitoring of children.		
Complementary social	Training;		
services <sup>ii</sup>	Professional qualification.		

Table 1. Condicionalities of the Programa Bolsa Familia

Source: MDS, 2010.

The federal government took the responsibility to cover the financial budged of the program, the municipal government assumed responsibility of managing the program on the municipal jurisdiction by selecting an enrolling the families and the state government contribute in provide the access of the families to the complementary services required by the program as conditionalities.

Taking into account the importance of those resources for administration of the program at local level, the federal government has required of municipal managers more efficiency in the use of the resources in order to increase the quality of life of citizens.

One way to assess the performance of the municipal managers is to gauge the relationship between financial transfer and outcomes delivered to society. This efficiency is supported on the direct theoretical relationship between quality of the municipal administration and success of social programs (SILVA *et. al.*, 2007; MEDEIROS *et. al.*, 2007), besides producing effects on education, health, nutrition, among others (MEDEIROS *et. al.*, 2007; BRONZO, 2008; MONTEIRO *et. al.*, 2009).

Although, this factor are important to promote improvements in life conditions in short run, they are also essential to break the intergenerational cycle of poverty measured by the improved of quality of life in the current society (Monteiro, Ferreira and Denúbia, 2009).



Therefore, Figure 1 summarizes all the empirical and theoretical relationships derived from the program. It is noteworthy in a special way the positive expected impact of the quality of public management on the overall outcome of the program with is measured by improvements in quality of life.



Figure 1. Design of the PBF and its empirical and theoretical relationships. Source: Authors.

# METHODOLOGY

The study used cross-sectional data collected form Minas Gerais state in Brazil in 2007. *Programa Bolsa Familia* is currently being implemented in all of Minas Gerais' 853 municipalities. Data sources include the Brazilian Federal Government, DATA MINAS, Finanças do Brasil (FIMBRA) and Instituto Brasileiro de Geografia e Estatística (IBGE). All data used to develop the study are, the most up-to-date year.

# **Measuring Public Management Performance**

We used the efficiency approach to measure the municipal management performance. It means to utilize administrative inputs to produce as much as possible program outputs included in the institutional mission of the program.

The program input included was the per capita transfers in millions reais to municipalities in order to support the program administration in a municipal jurisdiction. For the outputs, we included percentage of families that are benefited by the program, updated rate of registry, and validation of registered. The update rate of registry refers to efforts to update the information of the families enrolled in the program, including those who don't receiving the benefit, yet. This information is important to prioritize the allocation of resources. Validation of registered refers to the quality and integrity of the information recorded in the general register of the program. This information, that requires a great effort of assessment, is important to ensure the program's focus and problems such as corruption and goal displacement.

We measured efficiency using Data Envelopment Analysis (DEA) with productorientation. In the DEA, mathematical programming is used to measure efficiency in terms of the distance from each Decision Making Unit (DMU) to its respective efficiency frontier determined from the data of the production of the unit group (Ferreira, Gonçalves and Braga, 2005). The DEA model with product-orientation maximizes the proportional increase in the levels of product by maintaining a fixed amount of inputs. According to Charnes et al. (1994) and Estelita Lins and Meza (2000), the model can be algebraically represented by the following Linear Programming Problem (PPL):

$$\begin{array}{l} \max_{\phi,\lambda} \phi, \\ \text{s.a.} \quad \phi y_i - Y\lambda \leq 0, \\ -x_i + X\lambda \leq 0, \\ -\lambda \leq 0, \end{array} \tag{1}$$

where,  $y_i$  is a vector (m x 1) of quantities of product of the i-*th* DMU;  $x_i$  is a vector (k x 1) of amounts of input of the i-*th* DMU; Y is a matrix (n x m) of products of the n DMUs; X is a matrix (n x k) of inputs of the n DMUs;  $\lambda$  is a vector (n x 1) of weights; and  $\phi$  is a scalar from which the values are equal to or higher than 1 and it indicates the efficiency score of DMUs, in which a value equal to 1 indicates relative technical efficiency of the i-*th* DMU, relative to the other ones, and a value higher than 1 evidences the presence of relative technical inefficiency. The  $\phi$  indicates the proportional increase in the products that the i-*th* DMU can reach, as keeping constant the amount of input.

Although the DEA methods are widely applied in efficiency analysis, most researchers have ignored the effect of the error on the efficiency estimators resulting from this approach. Dong and Featherstone (2004) argued that DEA traditional applications have superficially discussed the matter of the uncertainty associated with the estimates of efficiency using DEA.

To address the issue of uncertainty or errors in efficiency estimation using DEA, we use bootstrapping statistical technique. The objective is to verify the reliability of the estimates by bootstrapping on the mean or the median of the efficiency scores through successive samplings.

# **Empirical Model**

The Firjan index was used as an outcome in order to measured the effects of *Programa Bolsa Familia*. Firjan index is measured by the "Federação das Indústrias do Rio de Janeiro", a respectable nongovernmental agency of Brazil. The index is based on 3 main dimensions: education; health; and work conditions, as shown in Table 2 (Firjam, 2010). The index is assessing annually by the mean of these tree dimension which is composed by different variables, each one ranged from 0 = worst to 1 = best, according to the individual performance.

	• Enrollment rate in basic education
Education	School dropout rate
	• Rate of student failure and retention
	• Percentage of teachers with higher education
	Average daily of school classes
	Number of medical visits for prenatal
Health	• Deaths due to undiagnosed
	Infant deaths from preventable causes
	Job Creation
Employment and Income	• Formal employment rate
	Average salaries
	·

Table 2.	Dimer	nsions	of the	Firjam	index	of C	Juality	of life
	-					-		

Source: Firjam (2010)

# **Measuring Decentralization**

The decentralization process has been present by many authors as one of the ways to improve the allocative efficiency of the public sector, since it approximates the public management to citizens (Giambiagi and Além, 2000; According to Ortiz, 2007).



However, a redistribution of the responsibilities regarding the actions and services among the several government layers (Federal, State and Municipal), which is a result from a redefinition of the attributions and with reinforcement of the municipal power, so increasing the tasks of the municipality in several areas such as health, education and social welfare work.

In this dynamics, municipalities with professionalized personnel and more efficient administration have autonomy in the administration of activities and in access to resources through social projects, therefore generating positive impacts upon conditions of the citizens' life. This factor is discussed in the available literature as "capture of public resources" (Mendes and Rocha 2004; Campos 2007).

However, in many Brazilian cities, mainly those very small with less than 10,000 inhabitants, the public management is poorly professionalized in general, as not being able to link their actions to maintainable social and economical goals. As an added difficulty, an expressive part of those cities have a reducible participation into taxes and municipal rates in composition of the municipal budget. In the State of Minas Gerais, for instance, approximately 18% cities have participation lower than 20% in formation of their own budget. As a larger portion of this resource is generally invested in either or both employees' payroll and the maintenance of the municipality minimum infrastructure, the impacts on indicators of the QOL are generally insignificant.

Many municipalities are not interested in increasing their own tax revenues due to "Fiscal Free Rider" behavior that makes them to receive important transfers with little effort, just based in federalism's laws. Many of them are well-known for protecting small cities. Some of these cities can maintain certain inefficient practices and fiscal irresponsibility, as perpetuating its comfortable dependence in relation to superior layers of the Federation. According to Clementino (1998), such "Free rider" behavior consists of a lack of the local governors' political will in effecting the potentiality of the tax instruments they dispose.

Concerning to the Federal Government's social programs, the decentralized implementation of the programs by the Ministry of Social Development and Fight Against Hunger (MDS) presupposes both territorial and political articulation. This means that both administration and operationalization of the programs not depend only from coordination among sectors within a government level, but among their several government levels Federal, State and Municipality (SOUSA 2006).

With this action, the municipality assumes larger responsibilities, as well as they started to access financial resources to finance a professional public management in the social administration area. On the other hand, the transfer of the administration to the municipal bureau elevated the concern level relative to efficiency of the Public management and its impacts on this program.

# **Control Variables**

Based on the fact of an explanatory model of QOL is influenced by some demographic and social aspects, several control variables were included into model, as following: the GDP, poverty, age composition, and population. These variables should be interpreted in the context of the study. Although indicators like GDP per capita and public investments per capita positively contribute to the quality of life, some of such indicators can be seen as decidedly negative or can hide the government's administrative inefficiency (Swain, 2003).

Some examples are the money spent on environmental cleanup of pollution, curing of water diseases, public security, drug abuse, infantile pregnancy, HIV, sexually transmitted diseases, and others aspects that could have been partially prevented through a more effective public administration. When money comes from federal and state layers of the government,



public managers can became complacent about collecting local taxes and professionalizing the public administration, increasing more the dependence on the federal level.

The Table 3 summarizes all variables discussed earlier and presents the authors' hypotheses about the expected relationship with the dependent variable, based on the theoretical framework.

ACRONYM	DESCRIPTION	INFLUENCE	SIGN EXPECTED
		$(M,S and F^*)$	BASED ON
			THEORY
QOL(Y)	Quality of Life (Firjan Index)	Dependent	
EFFIC	Public Management Efficiency (DEA Proxy)	Public Administration (M)	+
BUREA	Number of Highly Specialized Social Bureau	Public Administration (M-S)	+
INVEFO	Municipal Investment effort	Public Administration (M)	+
POPPERC	Percentage of Family Enrolled in Social Services	Public Administration (M)	+
STAXMUN	Municipal Tax Revenue of Service in million	Public Administration (M)	+
TAXMUN	Total Municipal Tax Revenue in million	Public Administration (M)	+
TRANSFED	Federal Transfer in million	Fiscal Federalism (F-M)	+
TRANSEST	State Transfer in million	Fiscal Federalism (S-M)	+
TRANSF**	PBF Transferred in million	Public Administration (F)	+
INFRAEDU	Rank of quality of Public education infrastructure	Public Administration (S-M)	-
HRHEALTH	Number of Active Health Professionals	Health Interg. (FSM)	+
HEALTCL	Number of health facilities	Health Interg. (FSM)	+
MALNUT	Malnutrition	Health – prevention - (FSM)	-
GDPMUN	Municipal GDP in million	Economy Indicator	+
AGING	Ageing index	Demografic indicator	+/-
POPUL	Population of Municipality in thousands	Demografic indicator	+/-
POORF	Number of Families living on poverty	Social Indicator	-

 Table 3. Description of the model in a cross section analysis based on 2007

\*Levels of in fluency: M = Municipal; S = State; F = Federal. \*\*This is the only variable based on 2006.

# **RESULTS AND DISCUSSION**

Table 4 shows the descriptive statistics of the variables used in the efficiency analysis of public management. According to the methodology section, the following variables were included: percent benefited family, update rate of the registered; and validation rate of registered as outputs and the value per capita transferred to support administration as input.

Table 4. Valiables used in the efficiency model						
	Minimum	Maximum	Mean	Std. Dev.	Skewness	Kurtosis
Families benefited (%)	0,0667	0,6142	0,3009	0,1029	0,1926	-0,6594
Validation (%)	0,2300	1,0000	0,7910	0,1655	-0,4022	-0,5984
Update process (%)	0,0900	1,0000	0,8094	0,1294	-1,3828	2,5716
Transferred support per capita (\$)	0,3234	130,5376	2,5760	5,4997	16,5054	361,1567
C						

Table 4. Variables used in the efficiency model

Source: research findings

Just in the administrative transfer per capita was noticed a high standard deviation, that is superior to the values of the means. This can be explicated both by the big difference of



poverty among the municipalities and the difference of abilities in the capture of public resources from discretionary sources (Mendes and Rocha, 2004; Campos, 2007).

The negative asymmetries for both validation and updating variables show the narrow focus of the program in several municipalities. It was possible to perceive municipalities with only 23% validation and 9% updating, which reflects limitations in action of the local public management concerning to implementation and control of the transfer programs.

In practice, the absence of updated and validated registers could be a reflex from deviation of the program purpose, could be also a lack of effort to shift families according to changes in the socioeconomic conditions. Malawi, Gustavo and Luz Maria (2005) stated that targeting is an important factor for the success of these programs.

According to Samaratunge and Teicher (2008), the lack of accountability makes a state weak and its public administration system dysfunctional. Accountability is an important means for establishing criteria to measure the performance of public officials, and for creating oversight mechanisms, to ensure that the quality of public services is improved. Consequently it is a concern that Kaufmann et al. (2003) have observed that the ratings for accountability, transparency and control of corruption are the lowest in developing countries. In public administration accountability is imperative to make public officials responsible for government behavior and answerable to the entity from which they receive their power (ADB 1995).

The average of 30% assisted population rather evidences the dimension of the program and the expected impact on the improvement of the social indicators.

Although the resources transferred to each family represent, on average, only 21,3% the effective minimum wage in Brazil, the families' attendance of the requirements in education, in health and social follow-up has direct impact on the QOL in the municipalities, therefore reinforcing the economical aspect resulting from this program.

Actually, in developing countries, the fact of removing the families from the poverty line already has positive impacts for entire societies. However, the specialists in public policies emphasize the importance of linking the actions of social programs to other long-term activities in order to breaking the intergenerational poverty cycle (Monteiro, Ferreira and Denúbia, 2009; Britto and Soares 2010).

Figure 2 sketches the results for efficiency of the Public Administration in the management of the income transferred to the program. The average lower than 40% demonstrates the lacked effort of the municipal Public Administration in promoting the efficiency of the program.

Through the relationship between standard deviation and average of the scores of public management's efficiency, it is possible to notice a variation coefficient of 55.6% around the general efficiency, among all the municipalities.





Figure 2. Distribution of efficiency's score Source: research findings

In order to accomplish a better categorization of the efficiency levels of the program municipal administration, a total of five efficiency categories were established (Table 5). Each category is formed by either sum or subtraction of a standard deviation, as based on average. Most municipalities are concentrated on the categories of fair and low efficiency, a factor exposing the reduced level of the municipal effort in the improvement of the local administration of the program.

Only 16% of the total municipalities were classified as efficient or highly efficient. From those, less than 5% can be considered as benchmarks in the effort for promotion of the program by Public Administration. To be benchmark, however, DMU (Decision Making Unit) should belong to the border of efficiency's frontier. The position on the efficiency's border is a necessary condition, but no enough for efficiency. The inexistence of waste of inputs is also necessary, although <u>it is difficult to track on big samples of empirical studies</u> (SEIFORD; THRALL, 1990).

	Lower	Upper	Percent	Cumulative Percent
Low Efficiency	0.0033	0.1730	16.9306	16.9306
Fair Efficiency	0.1730	0.3897	36.4190	53.3496
Medium Efficiency	0.3897	0.6064	30.4507	83.8002
Good Efficiency	0.6064	0.8231	11.2058	95.0061
High Efficiency	0.8231	1.0000	4.9939	100.0000

Table 5. Efficiency Layers based on the municipalities

Source: research findings

Based on the efficiency scores and other variables, the linear regression model, estimated by ordinary least squares method (OLS), was proposed for analyzing the impact of the variables already discussed.

The results of the model are presented in Table 6 in which is possible to visualize the quality of the regression adjustment, by considering the coefficient 0.966 for  $R^2$  changed and coefficient of 0.001 to the significance of ANOVA.

Table 6. Coefficients of the determinants of quality of life

		UNST.COEF	ST.COEF.	Т	SIG.
CONST		44.98972		55.5300	0.0000
EFFIC***	Public Management Efficiency	0.12434	0.01694	1.94000	0.0520



BUREA**	Number of Highly Spec. Social Bureau	0.37244	0.02428	2.17000	0.0300
INVEFO*	Municipal investment effort	8.66846	0.09497	6.30000	0.0000
POPPERC*	Perc. of family enrolled in S.S.	1.98553	0.02783	2.58000	0.0100
STAXMUN*	Municipal tax revenue of service in million	0.58022	1.20814	9.75000	0.0000
TAXMUN*	Municipal tax revenue in million	-0.26144	-1.29437	-10.02000	0.0000
TRANSFED*	Federal transfer in million	0.08455	0.34912	5.45000	0.0000
TRANSEST**	State transfer in million	0.01023	0.04906	2.53000	0.0120
TRANSF***	PBF transferred in million	0.42268	0.12023	1.71000	0.0870
HRHEALTH*	Number of active health professionals	-0.00146	-0.24532	-3.76000	0.0000
HEALTCL#	Number of health facility	0.00280	0.04405	1.52000	0.1280
GDPMUN*	Municipal GDP in million	0.01617	0.02692	3.77000	0.0000
AGING#	Ageing index	0.00309	0.00464	0.58000	0.5630
POPUL**	Population of municipality in thousands	0.01318	0.17330	2.21000	0.0280
POORFAM*	Number of families living on poverty	-0.00090	-0.36499	-3.66000	0.0000
	Adj. R-Squared	0.9671			
	F Change	1484.26			0.0000
	*0,01	**Sig.0,05	***Sig.0.10		#Insig

Source: research findings

Concerning to the central focus of the study, the positive impact of the public management efficiency in the performance of the program was observed, therefore corroborating the observations by several authors such as Ernest (2003) and Coggburn and Schneider (2003).

This observation was reinforced, since a positive relationship was found between the availability of Social Policy Bureau (BUREA) and the quality of life in the municipality, therefore reinforcing the observations by Mendes and Rocha, 2004; and Campos, 2007. It is distinguished the fact this variable also contemplates the partnership between state and municipality, since the provision resources are state ones, but the professionals' team is indicated or selected by the municipal administration. This fact corroborates the observations by Giambiagi and Além, 2000 and Ortiz, 2007.

The positive relationship found between QOL and <u>percent assisted families</u> (<u>POPPERC</u>) can be interpreted as a result of the performance of the public management by the effort to enroll as many families as possible in the program. These findings highlight the importance of public management for the success of the program as stated by Son (2008); Janvry, Sadoulet and Vakis (2008); Lindert (2006).

The municipal taxes which are under the public management control have demonstrated the most relative impact on the effectiveness of the program, according to the findings. However, considering that most part of the economy in towns are based on trade and other services, we decided to separate the service-based rates under the expectation to find positive relationship between service taxes (STAXMUN) and efficiency, a fact that was confirmed. In relation to other municipal taxes (TAXMUN), as contradicting the theoretical expectations, an inverse relationship with QOL was found.

One possible explanation to the negative relationship between municipal taxes and QOL can be found on the fact that municipal taxes are mainly based on land and house property and renting, which are some of the major factors that compose the cost of living by affecting most severely the lower income families. In addition is important to state that many municipalities excessively depend on transfers from the federal government to promote public services such as health, education, and social programs. Those municipalities seem not to be able to provide minimal improvements based on their own budget, because the greater portion



is spent on public employees' salaries instead on public services, local infrastructure or the quality of public management and management system.

According to TABLE 7 more than 60% cities have less than 30% their budget provided by municipality taxes. Some cities have more than 95% their budget provided by federal government and some others have more than 80% from the state government. This fact confirms the concerns of Rodden, Eskeland, and Litvack (2003) who argued that the structure of intergovernmental finance in decentralized systems may lead to dependency of the federal level. These results seems to confirm the statement of Jimenez (2009) who argued that the moral hazard problem caused by fiscal transfer dependency can also lead local governments to under-invest in the quality of their management systems.

Government layer	% Federal	% State	% Municipality
Mean	52.8634	19.7447	27.3916
Median	53.7578	16.7037	27.1493
Minimum	9.0571	0.0024	0.7475
Maximum	97.5546	84.4547	57.0996
Percent20	43.9370	12.6545	20.7700
Percent40	50.7270	15.2474	24.9214
Percent60	56.6355	18.9167	29.1679
Percent80	62.5943	25.4035	34.0655

Table 7. Composition of municipal budget

Source: research findings

On average, the largest participation into composition of the municipal budget is from the union, as representing 52.86% the total. Thus, it seems evident the positive impact generated by the variables TRANSFED and TRANSEST, simultaneously federal and state transfers, confirming the importance of intergovernmental administration to promote improvements on municipality jurisdiction. Although those variables positively affect the QOL, they elevate the dispute to the "capture of public resources", since large part of these resources are discretionary (Mendes and Rocha, 2004; Campos, 2007).

The social transfer of the "Programa Bolsa Família" also showed positive relationship, therefore confirming the importance of the income transfer programs to improve the citizens' QOL (Monteiro, Ferreira and Denúbia, 2009). The positive relationship between the municipal investment effort (INVEFO) and QOL observed, corroborating the importance of the local administration improvements in order to promote the wellbeing.

According to theoretical expectation, the GDP per capita remained positive relationship with QOL which was confirmed by the study. Residents with high human capital and high salary may look for areas where QOL is rising, therefore leading to concentration of the cities with both high and low level of the QOL (Cullen and Levitt 1999; Kahn 2000; Dal Rio 2009). In Brazil, this phenomenon is common among professionals seeking better job opportunity and students who move out to cities that have qualified colleges and universities.

More-educated individuals spur the growth of consumption amenities in cities where they reside as improving the local economy or because their influence on the political process leads to desirable outcomes such as the improvements in health, education, work condition as well as reductions in crime and pollution (Shapiro 2006).

According to Glaeser and Shapiro (2003), the better-educated people are more likely to be homeowners or business owner, and some evidence exists to suggest that they are more able to invest in their local communities by demanding more services. Reinforcing this observation is valid to mention that most federal universities and schools with high performance are concentrated in the metropolitan areas, as reinforcing the positive aspects of



the quality of public education this fact can be confirmed by the positive relationship between INFRAEDU and QOL, since this variable represents the municipal rank of public infrastructure in education.

The population (POP) whose expectations were dubious presented positive relationship with QOL. Although factors such as pollution, more marginality and living costs are generally higher in metropolitan areas, the conditions for education, employment, wage levels and especially health care are generally better in larger cities. However, from the three proxies for assistance to health only the number of professionals (HRHEALTH) in activity showed to be significant. This result was doubly surprising because the relationship to be negative, as contradicting the expectations previously established.

Two possible reasons can justify these results. Firstly, the fact of the Brazilian health system is still more concerned with curative health than the preventive one. On the other hand, many regions have an adequate number of health professionals, inclusive preventive one, mainly after expansion of the family health programs (PSF) in the Brazilian interior towns. But exactly in several of those areas, there is no infrastructure for ambulatory services. In the State of Minas Gerais, many towns do not have at least a hospital.

The variable HEALTCL (number of health facility as proxy of health infrastructure) was introduced in order to answer those questionings. However it didn't showed significance.

This fact, actually confirms the importance of the preventive health treatment and specially the nutrition condition of the children to improve the quality of life. Indirectly these results confirm the importance of family health programs (PSF) in the Brazilian cities since the nutrition conditions of the children is one the most important variables tracked by them.

#### 5. Conclusions

This study has addressed one important topic in the public administration field which represents both a factor to success of CCT's and a gap in the public manager literature. By understanding the key role played by public managers in the social programs implementations, it is possible to think about alternatives to improve the overall quality of the process in social programs, which represents a substantial benefit for the citizens.

The results draw attention to a number of important factors governing the influence of public administration in the quality of conditional cash transfer programs. First of all, the positive influence of the Public Management in the success of the program, which was the central hypothesis of the work, was highlighted as the main conclusion of this paper. Second, the positive influence of public managers has been reinforced by the presence of Social Policy Bureau which affects positively the outcome of the program. Finally, federal and state transfer can be interpreted as both an intergovernmental effort and a decentralization process important to accomplish the mission of the program.

By contrast, the findings showed several factors that could be limiting improvements in public manager's performance, among them the lack of control and accountability, and the lack of targeting. There is a consensus that these factors tend to make the state weak and its public administration system dysfunctional as point out by some authors. As an example the results suggest that the transfer to the CCT is directly related to improvements in the quality of life. That was a relevant finding; however the program's success can be influenced more by the ability to access the resources than the quality of public managers in using that as presented in the model.

The results seem to suggest that is not much incentive to improve the quality of Public Management, especially in the small cities. Based on the behavior of "free rider of fiscal federalism" instead of improving the capacity of Public Management it seems to be more practical for many cities to take advantage of the Brazilian federalism system, that links the money transferred to total population and citizens' life conditions. Especially the money



delivered to improve the complementary social services, which origins are usually discretionary sources. This fact tends to increase the dependence of these cities on the money transferred by state and federal levels in order to improve the quality of life, as suggested by the results. The moral hazard problem caused by fiscal transfer dependency can also lead local governments to under-invest in the quality of their management systems.

On the other hand, the high qualification of Public Management is an important factor of success in the "capture of public resources, since part of the transfers is dictionary. It is also concluded that the fiscal federalism accomplishes a double role in promotion of the society's well-being. It can positively support intergovernmental policies and programs, as reaffirmed by the importance of the transfers to improve citizens' well-being. But in contrast it can promote the fiscal protectionism in small municipalities and can induce them to lower effort both to raise proper tax revenue and to improve the qualify of the public management.

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<sup>&</sup>lt;sup>1</sup> Clientelism is a kind of principal-agent relationship finding in democratic countries. Clientelism involves three actors, a principal, an agent and a 'client'. In the clientelism the criterion of allocation of public resources is particularistic, rather than universalistic. Clients are rewarded with public contracts, appointments and the like not because of merit or credentials but prior support.

<sup>&</sup>lt;sup>ii</sup> These are complementary services of social protection which has the household family as the target to improve the wellbeing condition. They are optional and just provided in some regions by municipalities and state jurisdiction.