

**"Cashing in on Democracy: Exploring the Impact of Conditional Cash Transfers on Civic Engagement, Political Participation, and Trust in Mexico and Brazil, 2010-2018"**

Daniel Haili Sun

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Thesis Advisor: Dr. Valeriya Kamenova

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### **Abstract**

Within the international community, income inequality is one of the most important issues. Through the Gini index, one can track that the spread of income inequality has only widened, and shows no signs of stopping anytime soon. Economists and policymakers in Latin America implemented conditional cash transfer (CCT) programs, wealth supplements that give money to households if they satisfy the conditions within the program. The results showed massive improvements to Human Development Index (HDI) markers, but one question remains: does it increase other factors, such as political participation, civic engagement, and trust based on Amartya Sen's endogenous framework for development? This thesis argues that CCTs have a statistically significant effect on political participation, civic engagement, and trust factors in Mexico and Brazil based on the Latin American Public Opinion Project through utilization of rigorous statistical and econometric methods. The analysis has shown that there is a statistically and practically significant effect on the three factors for each country based on the additional income and the conditionalities attached for each of the programs. Some major implications include understanding how to create a good means-tested welfare program and improving our conceptions of development as a whole.

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## Introductory Figures

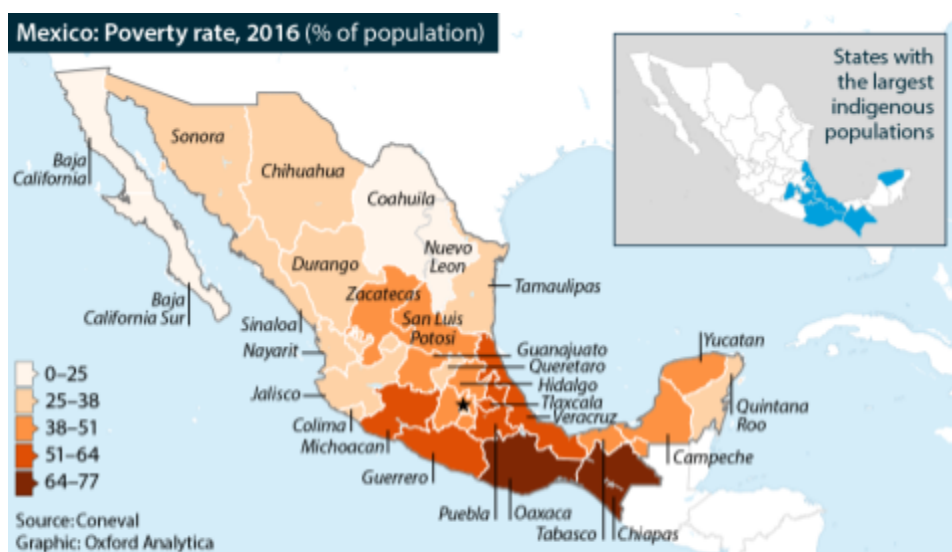


Figure 1: Mexico poverty rates by federal state represented as a percentage of population, 2016. Source: Data by Coneval, Graphic by Oxford Analytica

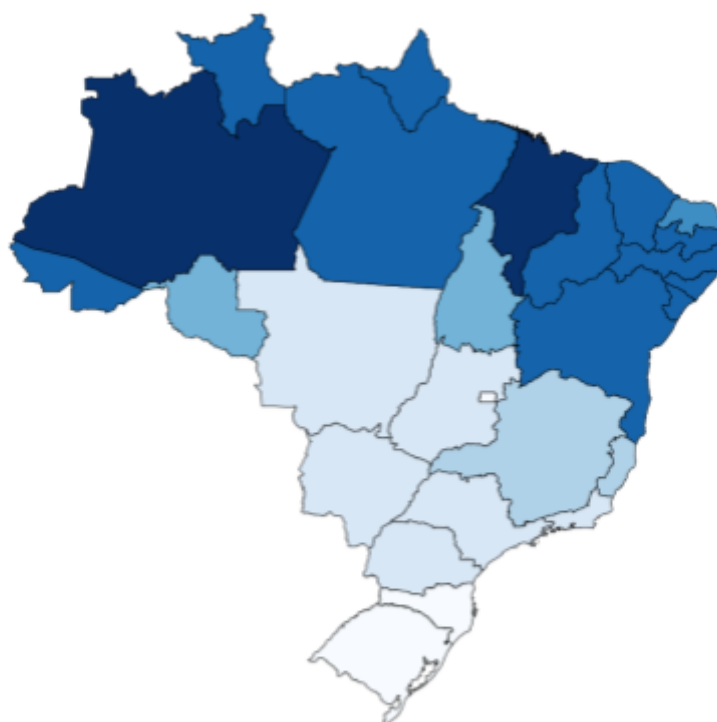


Figure 2: Brazil poverty rates by federal state represented as a percentage of population by average, 2012-2021. Source: <https://cps.fgv.br/en/NewPovertyMap>

## Chapter I: Introduction

Within the past 30 years, increasing interventions surrounding cash transfers have become more popular as a method to bridge the gap between those in destitute versus those in moderate living standards in countries like Mexico and Brazil. These means-tested cash transfers, either conditional or unconditional, are often given to certain families within a certain area within the state, and are typically assigned through simple or stratified random sampling. This research addresses the effects of cash transfers towards populations in need, namely those in developing areas. It aims to explore the effects of cash transfers by answering the following question: Do conditional cash transfers impact development outcomes for developing areas within states? In this thesis, I argue that cash transfers overall have a direct impact on civic engagement, political participation and trust.

Cash transfers are typically studied within the economics realm, where economists utilize cash transfers in order to solve a time inconsistency problem within households. These types of studies employ numerous quantitative methods, using multiple regression analysis and other varied econometric methods to determine causal links between the two concepts.<sup>1</sup> Through this existing literature, a link has been established between cash transfers and effects on HDI dimensions, like life expectancy, schooling, and GNI per capita.<sup>2</sup> While these findings are monumental in determining the link between cash transfers and its resulting monetary and human capital effects, the impact on political engagement has been insufficiently researched. Even for literature that has addressed this link, it only applies to one or two specific years rather than the entire timeline for the conditional cash transfer program. This research aims to bridge

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<sup>1</sup>Maria Micaela Sviatschi, "<http://www.micaelasviatschi.com/>," <http://www.micaelasviatschi.com/> (2020), <http://www.micaelasviatschi.com/wp-content/uploads/2020/10/jmp51.pdf>.

<sup>2</sup> Simon Aroko Owoko, "EFFECT OF CASH TRANSFERS ON CHILD LABOR AND SCHOOLING IN KENYA," *EFFECT OF CASH TRANSFERS ON CHILD LABOR AND SCHOOLING IN KENYA* (2014), <http://erepository.uonbi.ac.ke/handle/11295/76793>



development theory from international relations with rigorous quantitative methods from economics and applied statistics.

The research would also address a pressing question regarding the link between development, cash transfers, and their substantive effects. Development takes many forms, but cash transfers as a form of development are unique in the sense that not all cash transfers only supplement “income”; rather, some focus on conditional agreements as well, such as mandatory enrollment in primary and secondary schooling or reduction in child labor hours. Amartya Sen, in “Development as Freedom”, documents the economic effects of cash transfers as well as the supposed political effects, marking the endogenous relationship between political freedoms, economic freedoms, social opportunities, government transparency, and protective security.<sup>3</sup> While Sen and other scholars expand on definitions and interpretations of development, the literature itself is fairly theoretical.<sup>4</sup> This thesis examines the empirical evidence between conditional cash transfers, civic engagement, political participation, and trust for each beneficiary.

This thesis focuses on the following states that have implemented their own forms of cash transfers and examines the potential effects on civic and political engagement through a large-N quantitative analysis." Several areas, including Mexico and Brazil, have implemented their own form of cash transfers in order to improve family and development outcomes. What has not been documented is the potential effects on civic engagement. For example, Mexico's recent increase in democratization compared to its previous single-party *Partido Revolucionario Institucional* (PRI) rule coincided with its introduction of *Progresa* in 1997, a precursor to its current cash

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<sup>3</sup> Amartya Kumar Sen, *Development as Freedom* (New York, NY: Alfred A. Knopf Incorporated, 2000).

<sup>4</sup> For other scholars, see: Acemoglu and Robinson's *Why Nations Fail* on inclusive institutions and their role in the development and protection of wealth; Samuel Huntington's *Political Order in Changing Societies* on the role that weak multi-party elections play in the destruction of development; Peter Singer's *Famine, Affluence, and Morality* on the role that foreign aid plays in development and poverty alleviation.

transfer program. Coincidentally, in 2000, three years after *Progresas*'s introduction, the first opposition party leader was elected. While Mexico's electoral reform certainly played a role, the coincidence cannot be discounted, and deserves to be investigated much more.

From a policymaking standpoint, this research informs global leaders on unique results from development. Conventional wisdom dictates that development improves tangible human outcomes such as health and life expectancy. Sen argues that it is not income that should be the main marker in poverty; rather, it should be "capability deprivation" that informs the state of poverty.<sup>5</sup> There have been small-scale pilot programs implemented to determine the efficacy of conditional income supplementation programs contrary to Sen's ideas of income-only supplementation, like universal basic income. If the causal mechanism can be identified not just in Mexico and Brazil, but in other Latin American states as well, there will be large implications and perception shifts towards development, as not only a tool for economic change, but for political change as well. For example, Namibia implemented a pilot program in two villages that supplemented roughly 8% of average income. As a result, child malnutrition, crime, and school attendance showed improvements relative to their categories.<sup>6</sup> While the United States does not have any form of federal universal basic income, one of its states, Alaska, has its own in the form of the Alaska Permanent Fund. In this program, Alaskan residents receive around \$1,600 (in 2019 dollars) annual through dividends from oil stocks.<sup>7</sup> However, a 2018 study by the University of Chicago asserted that the Permanent Fund does not have a statistically significant effect on aggregate employment, only increasing part-time work.<sup>8</sup> Under Sen's theoretical

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<sup>5</sup> Amartya Kumar Sen, *Development as Freedom*, p. 20.

<sup>6</sup> "Countries with Universal Basic Income 2022," World Population Review, 2022, <https://worldpopulationreview.com/country-rankings/countries-with-universal-basic-income/>.

<sup>7</sup> Alex DeMarban, "This Year's Alaska Permanent Fund Dividend: \$1,606," Anchorage Daily News (Anchorage Daily News, September 28, 2019), <https://www.adn.com/alaska-news/2019/09/27/this-years-alaska-permanent-fund-dividend-1606/>.

<sup>8</sup> Damon Jones and Ioana Marinescu, "The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence from the Alaska Permanent Fund," *HECO Working Group*, 2018, <https://doi.org/10.3386/w24312>.

framework, this is not a surprising result. These cash transfers were all unconditional with basic residency requirements — there were no requirements for schooling or other factors that are within Sen's endogenous cycle, thus not entering it in the first place. With a further understanding of CCTs and the effects that they have on civic engagement and political participation, policymakers will be able to improve the welfare of their citizens dramatically not just by income, but through other tangible means.

## Chapter II: Literature Review

The organization for this section goes as follows. First, the section will give causes that affect political participation and civic engagement. Second, I describe the relationship that poverty has on political participation and civic engagement through theories and literature. Finally, I will discuss previous conditional cash transfer programs, their mechanisms, and ultimately whether they had any meaningful impact on political participation and civic engagement.

### Factors of Civic Engagement

Civic engagement refers to a set of actions and efforts that invest in communities, whether they be local, regional, or international.<sup>9</sup> This definition is broad — volunteerism, electoral participation, and organizational involvement all fall under it, and these factors all combine to solve an issue that a community wants addressed.<sup>10</sup> Scholars, through political psychology studies, have found that trust is a big factor when it comes to determining the type of civic engagement. Low trust levels pose a vicious cycle, as the lessened engagement stemming from it may create a cycle of low trust.<sup>11</sup> Green and Brock suggest that interventions such as creating a forced-choice system for disadvantaged citizens and influencing television programming can allow low-trust individuals to still participate in society and community resources, increasing community contributions and general welfare.<sup>12</sup>

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<sup>9</sup> Michael C. Grillo, Miguel A. Teixeira, and David C. Wilson, “Residential Satisfaction and Civic Engagement: Understanding the Causes of Community Participation,” *Social Indicators Research* 97, no. 3 (2009): pp. 451-466, <https://doi.org/10.1007/s11205-009-9511-0>, p. 453.

<sup>10</sup> Ibid.

<sup>11</sup> Melanic C. Green and Timothy C. Brock, “Trust, Mood, and Outcomes of Friendship Determine Preferences for Real versus Ersatz Social Capital,” *Political Psychology* 19, no. 3 (1998): pp. 527-544, <https://doi.org/10.1111/0162-895x.00116>.

<sup>12</sup> Melanic C. Green and Timothy C. Brock, “Trust, Mood, and Outcomes of Friendship Determine Preferences for Real versus Ersatz Social Capital.”

Economics is also tied to civic engagement. Generally, civic engagement is lower in heterogeneous communities.<sup>13</sup> In this case, heterogeneity refers to differences in race, ethnicity, income, religion, education, and employment; the more homogeneous the factors are, the greater the civic engagement will be.<sup>14</sup> Social capital, while a fairly abstract term, can be defined as a commodity of interpersonal trust.<sup>15</sup> Groups or individuals with high levels of social capital are more likely to positively affect socioeconomic performance, which leads to lower transaction costs and deadweight loss associated with higher levels of distrust.<sup>16</sup> Thus, with high amounts of social capital and trust, social relationships are more cohesive.

Some scholars have focused on the macro-level structural causes of civic engagement. State structure is one such predictor of civic engagement and coalition-building. Individuals do not join organizations just because of certain interests; rather, they join organizations through influences of culture and institutional arrangements defined by the state.<sup>17</sup> For example, centralized association encouraged by the state tends to create organizations that share similar characteristics.<sup>18</sup> Connected to the messaging of the state, the type of governance may also have an effect. States that have held previous democratic values may experience social norms that have an impact on levels of civic engagement.<sup>19</sup> These structural studies have their own issues —

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<sup>13</sup> Dora L. Costa and Matthew E. Kahn, “Civic Engagement and Community Heterogeneity: An Economist's Perspective,” *Perspective on Politics* 1, no. 1 (2003): pp. 103-111, <https://doi.org/10.1017/s1537592703000082>. p. 108.

<sup>14</sup> Ibid.

<sup>15</sup> Paul F. Whiteley, “Economic Growth and Social Capital,” *Political Studies* 48, no. 3 (2000): pp. 443-466, <https://doi.org/10.1111/1467-9248.00269>, p. 1

<sup>16</sup> Ibid.

<sup>17</sup> Evan Schofer and Marion Fourcade-Gourinchas, “The Structural Contexts of Civic Engagement: Voluntary Association Membership in Comparative Perspective,” *American Sociological Review* 66, no. 6 (2001): pp. 806-828, <https://doi.org/10.2307/3088874>. p. 824.

<sup>18</sup> Ibid.

<sup>19</sup> Michael C. Grillo, Miguel A. Teixeira, and David C. Wilson, “Residential Satisfaction and Civic Engagement: Understanding the Causes of Community Participation.” p. 456.

they do nothing to inform mass-level behavior and what the masses believe, along with how they respond to structural issues.<sup>20</sup>

Besides the structural and macro causes of civic engagement, there has also been literature written on “resident satisfaction” as an alternative cause. According to Grillo (2009), the term refers to “an individual’s contentment with their environment and their level of connectedness to their communities.”<sup>21</sup> Factors such as hygiene, interpersonal trust, living conditions, and other similar causes fall within the scope of “resident satisfaction”. Some literature within this field contends that civic engagement is created by resident satisfaction, and that “positive people” are generally found to have more favorable opinions towards political and government institutions.<sup>22</sup> In general, one can summarize that the better the environment, the higher civic engagement levels are. The environment can be thought of as a place of opportunity, so causes such as meaningful employment, education, health care, and other similar causes all fall into this field.<sup>23</sup> For example, studies where subjects find their living experience satisfying their basic human needs report a general increase in happiness.<sup>24</sup> Grillo (2009) connects these semi-related topics together, citing general psychological studies on the relationship between high self-esteem and the likelihood of cooperation.<sup>25</sup>

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<sup>20</sup> Ibid., p. 456.

<sup>21</sup> Ibid., p. 456.

<sup>22</sup> John Brehm and Wendy Rahn, “Individual-Level Evidence for the Causes and Consequences of Social Capital,” *American Journal of Political Science* 41, no. 3 (1997): p. 1017, <https://doi.org/10.2307/2111684>.

<sup>23</sup> Michael C. Grillo, Miguel A. Teixeira, and David C. Wilson, “Residential Satisfaction and Civic Engagement: Understanding the Causes of Community Participation.” p. 457.

<sup>24</sup> Ibid., p. 457.

<sup>25</sup> Ibid., p. 457.

## Factors of Political Participation

At a base definition, political participation is defined as “citizens’ activities affecting politics.”<sup>26</sup> It includes activities ranging from voting, donating to campaigns, protesting, civil disobedience, or even political terrorism. What one can gather from these examples is that political participation is composed of four parts. One, political participation is defined by action, not passivity.<sup>27</sup> Second, political participation is voluntary and is not compelled by law or an institution.<sup>28</sup> Third, political participation is applicable to citizens that are not within any governmental structures, meaning that while one may run for office for a seat, activities as a politician does not count as political participation.<sup>29</sup> Finally, political participation “concerns government, politics, or the state in broad senses”, and is not confined to specific tasks.<sup>30</sup>

Mass communication and social media have significantly affected political participation. The world has become increasingly interconnected through mass communication and social media, and significant amounts of literature has been written in order to address this phenomenon. For those that are interested in politics, television is the most common medium.<sup>31</sup> It provides the masses with a semblance of relevant political issues, and provides a focal point for people to engage in political discussions.<sup>32</sup> However, this medium pales in comparison to online news, which transforms those already interested in politics into engaged citizens.<sup>33</sup> The sheer amount of information online along with the low barrier of entry stimulates political interest,

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<sup>26</sup> Jan W. van Deth, “What Is Political Participation?,” *Oxford Research Encyclopedia of Politics*, 2016, <https://doi.org/10.1093/acrefore/9780190228637.013.68>, p. 2.

<sup>27</sup> *Ibid.*, p. 3.

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*

<sup>31</sup> Shelley Boulianne, “Stimulating or Reinforcing Political Interest: Using Panel Data to Examine Reciprocal Effects between News Media and Political Interest,” *Political Communication* 28, no. 2 (2011): p. 157. <https://doi.org/10.1080/10584609.2010.540305>.

<sup>32</sup> *Ibid.*, p. 157.

<sup>33</sup> *Ibid.*

creating more political talk and potentially increasing the chance of someone engaging in a form of political participation. Social media, a recent advent, displays a unique ability to aid mobilization of citizens in protest activities through information and its ease of spread.<sup>34</sup>

Another factor that creates information and informed political participation is education. The effects of education on political participation have been studied intensely in both political science and economics. Education not only affects the development of an engaged citizen, but also allows the citizen to handle massive amounts of information.<sup>35</sup> In addition, studies have shown civic education can empower citizens in influencing government actions and policies, or simply known as increasing political efficacy.<sup>36</sup> Along with the previous point, Jackson simplifies the effects that education has in three more observations: that education instills the belief that voting is a civic duty, lowers bureaucratic costs by stimulating interest in politics and its systems, and creates politically sophisticated citizens that incur lower information costs when voting.<sup>37</sup>

Transparency also holds a significant effect on political participation. Just based on intuition and conventional wisdom, citizens of the state are more likely to engage with their government if they understand the inner workings along with having reassurance that corruption does not have a foothold. For example, electoral participation, a subset of political participation, is associated with greater transparency.<sup>38</sup> With specifics to democratic governments, transparent

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<sup>34</sup> Sangwon Lee and Michael Xenos, "Incidental News Exposure via Social Media and Political Participation: Evidence of Reciprocal Effects," *New Media & Society* 24, no. 1 (April 2020): p. 196. <https://doi.org/10.1177/1461444820962121>.

<sup>35</sup> Robert A. Jackson, "Clarifying the Relationship between Education and Turnout," *American Politics Quarterly* 23, no. 3 (1995): pp. 293-295, <https://doi.org/10.1177/1532673x9502300302>.

<sup>36</sup> Robert A. Jackson, "Clarifying the Relationship between Education and Turnout," p. 280.

<sup>37</sup> Ibid.

<sup>38</sup> James R. Hollyer, B. Peter Rosendorff, and James Raymond Vreeland, "Democracy and Transparency," *The Journal of Politics* 73, no. 4 (2011): p. 12, <https://doi.org/10.1017/s0022381611000880>.



regimes create contested legislative and executive races, signifying that citizens are willing to vote if information costs are low.<sup>39</sup>

### **Poverty, Civic Engagement, and Political Participation**

The linkage between poverty, civic engagement, and political participation has been well-researched. It has been documented that youth and adults who live in poverty tend to exhibit lower levels of civic engagement within political participation metrics, such as participating in marches or even voting.<sup>40</sup> Scholars have also observed a trend of decreased political participation and civic engagement among non-college-bound people, widening the gap between people afforded with more opportunities and people who are not afforded such.<sup>41</sup>

In addition to education opportunities, government policies also play a big role. Holzner documented the effects of NAFTA and neoliberal policies on Mexican citizens. Despite the Mexican government promoting innovations that highlight free-market reforms, opportunities were scarce for those in poverty. Institutional policies and obstacles, such as redistributing funds to elites, fragmentation of local organizations, and heavy emphasis on privatization made it so that poor Mexicans did not feel included in the process.<sup>42</sup> Continual interest in the elite and the lack of such for other members of society makes it clear that poor citizens are not the priority of the state. If that is the case, then the idea of participating in a democratic forum loses its novelty with every election cycle.

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<sup>39</sup> James R. Hollyer, B. Peter Rosendorff, and James Raymond Vreeland, "Democracy and Transparency," p. 12.

<sup>40</sup> Jennifer Astuto and Martin Ruck, "Growing up in Poverty and Civic Engagement: The Role of Kindergarten Executive Function and Play Predicting Participation in 8th Grade Extracurricular Activities," *Applied Developmental Science* 21, no. 4 (October 2017): pp. 302, <https://doi.org/10.1080/10888691.2016.1257943>.

<sup>41</sup> Steven Hart, "Breaking Literacy Boundaries through Critical Service-Learning: Education for the Silenced and Marginalized," *Mentoring & Tutoring: Partnership in Learning* 14, no. 1 (2006): pp. 17-32, <https://doi.org/10.1080/13611260500432236>.

<sup>42</sup> Claudio A. Holzner, "The Poverty of Democracy: Neoliberal Reforms and Political Participation of the Poor in Mexico," *Latin American Politics and Society* 49, no. 2 (2007): pp. 87-122, <https://doi.org/10.1111/j.1548-2456.2007.tb00408.x>.

One can extrapolate the effects and set them into a self-fulfilling prophecy. With the lack of poor voters, representation becomes poor and skews towards elites and those with heavy amounts of information. Education is ultimately important, but it is not the only solution. Institutional design and messaging matter just as much, as well as information flow. A credible institution that provides equitable information to its people means historically downtrodden populations may begin to see themselves as stakeholders.<sup>43</sup> The public can only respond to policy if they have access to information, and the lack of it leads to disinterest. By supplementing education with equitable information flow, there may be a chance for the poor and disadvantaged to participate in politics at a greater rate.<sup>44</sup>

### **Conditional Cash Transfer Literature**

Economists have analyzed conditional cash transfer programs (CCTs) since their conception in the late 1990s. The focus has been on researching two main issues: solving a typical time inconsistency problem and the effects of CCTs on the Human Development Index (HDI) categories: “Long and Healthy Life”, “Knowledge”, and “A Decent Standard of Living”.<sup>45</sup> Since then, research surrounding CCTs usually follows one of the categories. Essentially, the time inconsistency problem is summarized as placing more value on the present than the future, potentially limiting investment in the long run. The HDI categories lead into important factors that drive economies: labor, employment, and innovation.

The effects of CCTs on health has been well documented. Documentation through the World Health Organization (WHO) has shown that health service utilization increased by about

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<sup>43</sup> Anirudh Krishna, “Poverty and Democratic Participation Reconsidered: Evidence from the Local Level in India,” *Comparative Politics* 38, no. 4 (January 2006): p. 454, <https://doi.org/10.2307/20434011>.

<sup>44</sup> *Ibid.*, p. 453.

<sup>45</sup> UNDP, “Human Development Reports,” United Nations Development Programme, accessed December 21, 2021, <http://hdr.undp.org/en/content/human-development-index-hdi>.

20% in countries such as Mexico and Honduras, along with decreased infant morbidity and mortality, along with decreased markers in obesity and diabetes.<sup>46</sup> Scholars also found that children's health increased while on a CCT. According to Paul Gertler's research in Mexico, it was found that children's health responded positively to *Progres-Oportunidades*, Mexico's CCT program, with *Progres-Oportunidades* children having a 25.3% lower illness rate in the first six months than that of children in the control group.<sup>47</sup>

Empirical evidence has also been established for increased educational opportunities through CCTs. Getter and Barham, through research surrounding Nicaragua's Social Safety Net (RPS), found that there was an increase in children's schooling conditional on the woman receiving the cash transfer. The impact on education, as they found, is mainly decisive on the conditionality clause along with the income effect through the cash transfer program.<sup>48</sup> This concept is further supported through rigorous analytical solutions to determine the effects of CCTs on educational opportunities. For example, existing frameworks were used to analyze Honduras' Programa de Asignación Familiar (PRAF) CCT program.<sup>49</sup> In it, scholars found that PRAF "increased enrollment by 1 to 2 percentage points, reduced the dropout rate by 2 to 3 percentage points, increased school attendance by about 0.8 days per month, and increased annual promotion rates to the next grade by 2 to 4 percentage points", all of which were conditional on enrollment.<sup>50</sup>

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<sup>46</sup> Ole Doetinchem, Ke Xu, and Guy Carrin, "Conditional Cash Transfers: What's in It for Health?," *World Health Organization* 8, no. 1 (2008): pp. 5-7.

<sup>47</sup> Paul Gertler, "Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA's Control Randomized Experiment," *American Economic Association* 94, no. 2 (May 2004): pp. 336-341, <https://www.jstor.org/stable/3592906>.

<sup>48</sup> Seth R. Gitter, Bradford L. Barham, "Women's Power, Conditional Cash Transfers, and Schooling in Nicaragua," *The World Bank Economic Review*, Volume 22, Issue 2, 2008, Pages 271-290, <https://doi.org/10.1093/wber/lhn006>

<sup>49</sup> Paul Glewwe and Pedro Olinto, "Evaluating of the Impact of Conditional Cash Transfers on Schooling: An Experimental Analysis of Honduras' PRAF Program," *Evaluating of the Impact of Conditional Cash Transfers on Schooling: An Experimental Analysis of Honduras' PRAF Program* § (2004), pp. 47-48.

<sup>50</sup> *Ibid.*, p. 48.

The paragraphs above demonstrate Amartya Sen's endogenous framework. An increase in health opportunities means that there is an increase in social opportunities due to needing to worry less about mortality. Theoretically, the increase in social opportunities and increased stake in healthcare due to the money should make citizens scrutinize government workings, thus increasing transparency. With transparency comes demands for a social safety net, as more people now have a stake in their health. Finally, the presence of a social safety net means that people are willing to fight for it, thus increasing political freedoms as more candidates come to protect the establishment of the safety net. Likewise, an increase in educational freedoms means that younger generations are more aware of their own government, thus demanding transparency, and so on, following the previous health care model's trajectory.

### **Conditional Cash Transfers' Effects on Political Participation**

Some scholars seem to have been influenced by Sen's theory, as there have been working papers and reports in the past detailing a CCT program's effects on political participation, namely the increase of it. Baez et al. show that cash transfers affect political participation and political ideological views among CCT beneficiaries in Colombia.<sup>51</sup> In particular, women were more likely to enter the political sphere if they were a beneficiary of the CCT.<sup>52</sup> Additionally, Schober, through Mexican census data and public opinion surveys of nine other Latin American states, found that there are increased political participation levels among beneficiaries of CCT programs.<sup>53</sup> All other theses focusing on the causal link between CCT program implementation

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<sup>51</sup> Javier E. Baez et al., "Conditional Cash Transfers, Political Participation, and Voting Behavior" (Bogotá, Colombia: Universidad de los Andes, 2012), p. 21.

<sup>52</sup> Ibid., pp. 21-22.

<sup>53</sup> Gregory S. Schober, "Conditional Cash Transfers, Resources, and Political Participation in Latin America," *Latin American Research Review* (Latin American Studies Association, September 17, 2019), <https://larrlasa.org/articles/10.25222/larr.143/>.

and effects on political participation are fairly similar — all of them utilize econometric methods and rigorous frameworks created by other economists and political scientists.

### **Responding to the Literature**

Much of the literature analyzed in this literature review tends to be centered around economics. That is, focusing on the time inconsistency problem that many low-income households face along with human capital gains. There is not much in the existing literature centered around international relations, specifically the effects on political participation that CCT programs offer. My goal in this thesis is to carve out additional space for the relationship between international relations and cash transfers, specifically the effects that CCTs have on political participation, while still employing rigorous models and econometric methods. Do CCTs have a statistically significant effect on beneficiaries' political activities? How much money is needed in order to generate said effect? How will CCT programs affect political participation in future periods?

Speaking of political participation, most of the literature on CCTs and political participation only focuses on electoral participation, which is a subset of political participation. Schober is the only scholar in this section that includes other forms of political participation, and I add to that existing literature by also focusing on the other sides to political participation, such as protest and non-electoral political participation. Ideally, by examining further, I may be able to create more context in order to create a stronger causal link between the two concepts.

### Chapter III: Research Design

The purpose of this thesis is to discover whether conditional cash transfers (CCTs) have an impact on political participation and civic engagement. The literature review uncovered theoretical underpinnings of political participation and civic engagement, as well as research surrounding CCTs and their effects on health indicators and political participation. In this chapter, I discuss the methodology used within my quantitative analysis, as well as provide the general research design framework.

#### Hypothesis

My main hypothesis is that CCTs provide a significant impact on political participation and civic engagement. When CCTs are implemented, they provide people the means to participate within the political system and form groups to encourage such participation. Based on theoretical literature by Amartya Sen, I argue that the effect is positive, where CCT programs bring more people out to participate politically and engage civically.<sup>54</sup> However, it is important to note that the program itself does not *directly* affect participation and engagement. Rather, CCT programs and the income that they provide, coupled with the conditionalities attached to them, lead to increased political participation and civic engagement. Thus, a rigorous quantitative approach is needed in order to understand the underlying causal mechanisms.

#### Variables

My dependent variables for this design are political participation and civic engagement. Because these two variables are incredibly vague, concepts are needed in order to measure them.

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<sup>54</sup> Amartya Kumar Sen, *Development as Freedom*, p. 20.

I follow van Deth's definition of political participation, which includes activities that involve citizens affecting politics.<sup>55</sup> This includes activities such as protest, presidential elections, donations, and other related activities. Also, I follow Grillo, Teixeira, and Wilson's definition of civic engagement, which are any activities that invest in communities, which includes joining local groups.<sup>56</sup> Because trust of institutions is important within the civic engagement definition, that will also be included in measuring this variable. The dataset used within the methodology allows me to observe specific characteristics of the two variables. The Latin American Popular Opinion Project (LAPOP) offers several indicators through questionnaires that they send throughout Latin America. Each of these questionnaires contain questions labeled by category, ranging from civic engagement to questions surrounding the economy. For the purposes of this thesis, only questions that pertain to civic engagement and political participation are used within the model, ranging from the attendance of political groups to the attendance of protests.

My independent variable for the design is the presence of a CCT program. A CCT program refers to a means-based state welfare program that gives monetary assistance to families that fall below their respective poverty line with conditions attached. However, it is important to note that the independent variable definition should not just end at CCTs. Extant scholarship has shown that CCTs affect other factors such as life expectancy, income, social opportunities, and education.<sup>57</sup> These factors are all contained within Sen's endogenous development framework, and as such should be taken into account in the creation of the model when determining causation.

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<sup>55</sup> Jan W. van Deth, "What Is Political Participation?," p. 2.

<sup>56</sup> Michael C. Grillo, Miguel A. Teixeira, and David C. Wilson, "Residential Satisfaction and Civic Engagement: Understanding the Causes of Community Participation," p. 453.

<sup>57</sup> Maria Micaela Sviatschi, "<http://www.micaelasviatschi.com/>," <http://www.micaelasviatschi.com/> (2020), <http://www.micaelasviatschi.com/wp-content/uploads/2020/10/jmp51.pdf>.

## Basic Model

In order to examine the relationship between political participation, civic engagement, and CCTs within Mexico and Brazil, I run a multilevel ordinal regression. The multilevel regression is done because of the nature of the dependent variables: most are represented by categories rather than by continuous or binary means. For example, the variable for the likelihood of joining a community organization (“cp8”) is represented by four levels: unlikely, somewhat likely, likely, and very likely. As such, we can define the model as the following. Let  $Y$  be an ordinal variable with  $J$  possible categories.  $P(Y \leq j)$  refers to the cumulative probability of  $Y$  less than or equal to a specific category  $j$ . The generalized model is represented below:

$$\text{logit}(P(Y \leq j)) = \frac{P(Y \leq j)}{P(Y > j)} = \beta_{j0} - \eta x_1 - \eta x_2 - \dots - \eta_p x_p, j = 1, 2, \dots, J - 1$$

where  $\text{logit}(P(Y \leq j))$  refers to the logarithmic odds of being less than or equal a particular category  $j$ ,  $\beta_{j0}$  refers to some constant intercept,  $\eta_p$  refers to the odds for a given independent variable, and  $x_p$  refers to an independent variable or control.<sup>58</sup> Time-fixed effects are incorporated within this regression in order to hold years when running the model so as to avoid extraneous changes. To convert the results in the regression table into percentage odds, the following formula is used:

$$\text{OddsPercentage} = [\text{Result} - 1] \times 100\%$$

For example, if the result displayed a figure of “1.298”, the resulting odds percentage would be calculated as:

$$[1.298 - 1] \times 100\% = 29.8\%$$

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<sup>58</sup> UCLA, “ORDINAL LOGISTIC REGRESSION | R DATA ANALYSIS EXAMPLES,” OARC Stats (UCLA, 2021), <https://stats.oarc.ucla.edu/r/dae/ordinal-logistic-regression/>.



All of the models and analysis are carried out through R statistical language and RStudio Interactive Development Environment (IDE).

## **Dataset**

The primary dataset that I am using for this analysis is the Latin American Popular Opinion Project (LAPOP). LAPOP's primary goal is polling public opinion through rigorous and cutting-edge survey methods, doing so through partnerships with scholars and researchers across Latin America.<sup>59</sup> The polling is administered through a questionnaire, which is sectioned by different fields like "civic engagement", "corruption", "democracy", "electoral participation", and so on. Furthermore, one can separate the polling to one or multiple countries, allowing one to observe different fields for different countries. Countries are encoded once every two years beginning from 2004 and ending in 2021 due to the COVID-19 pandemic. The sample size differs for each country. In the context of this thesis, Mexico's sample size is  $n = 14,738$  across all years encoded and Brazil's sample size is  $n = 13,617$  across all years encoded. The data is a time-series, cross-sectional dataset. For this model, the following variables are used.

- 1) Civic Engagement (cp8, cp7, cp6, cp13, cp20)
- 2) Electoral Participation (prot3, vb2, pol1, vb10, gi0)
- 3) Evaluations (b21a, b32, b13, b21)

## **Dependent Variable Indexes**

The Civic Engagement variable meshes both civic engagement and political participation. As such, it is necessary to select the ones that pertain only to civic engagement in order to avoid

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<sup>59</sup> "Mission," Latin American Popular Opinion Project (Vanderbilt University), accessed November 15, 2022, <https://www.vanderbilt.edu/lapop/mission.php>.

perfect multicollinearity issues. Below are the justifications for each of the indexes within the variable.

First, civic engagement under LAPOP contains attendance at different meetings. Specifically, the meetings include community improvements (cp8), parent associations (cp7), religious organizations (cp6), political parties (cp13), and women's groups (cp20). Trust is also a factor, and will be included with trust in government institutions (b21a, b32, b13, b21). All of these variables fit with Grillo, Teixeira, and Wilson's definition of civic engagement, such as volunteerism and organizational involvement.

Second, the Electoral Participation variable is a mix of different categories due to the way the indexes are formatted in the survey. This includes protest (prot3), voting in the last presidential election (vb2), political interest (pol1), political party identification (vb10), and frequency of watching the news (gi0). These variables fit under van Deth's definition of "citizens' activities affecting politics," where each of these include some way of citizens taking either a passive or active role in politics. One may be wondering why political interest is included. My justification is that there is no political activity without a baseline level of interest in politics, and ignoring it would be incomplete since attitudes are still important.

### **Independent Variable and Control Indexes**

My independent variable index is LAPOP's CCT variable, labeled as cct1b in the dataset. Within this model, it will be constructed as a binary variable equalling either 1 or 0, with 1 as someone enrolled in the program and 0 otherwise. The control variables, mirroring that of Schrober's analysis of Mexico's CCT effects in 2010, are income, education level, age, gender,

number of children, and religiosity.<sup>60</sup> Continuing on with Schrober's analysis, locality-level controls such as region are needed in order to account for differences among localities, along with time-fixed effects.<sup>61</sup> The following variables are defined as such:

- CCT: 1 if recipient, 0 otherwise
- Gender: 1 if male, 0 otherwise
- Age: continuous variable in years
- Income: ordinal variable ranging from 0 to 10, with 0 being no income and 10 being the top income bracket
- Religion: ordinal variable that describes importance of religion from 1 to 4, with 1 being very important and 4 being not important
- Number of Children: continuous variable in number of children
- Education: continuous variable in years
- Urban/Rural: 1 if Urban, 0 otherwise
- Norte: 1 if in the northern region, 0 otherwise. Mexico has 4 regions including the northern region in total, Brazil has 5 regions including the northern region in total.
- All trust variables: ordinal variables each ranging from 1 to 7, with 1 meaning no trust at all and 7 meaning a lot of trust.

## Limitations

Some limitations of this thesis include the sample size, variable definitions, and non-differentiation between socioeconomic statuses. For the scope of this thesis, there are only two countries represented: Brazil and Mexico. This is because they are one of the first states to

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<sup>60</sup> Gregory S. Schrober, "Conditional Cash Transfers, Resources, and Political Participation in Latin America," *Latin American Research Review* 54, no. 3 (2019): pp. 591-607, <https://doi.org/10.25222/larr.143>, p. 6.

<sup>61</sup> Ibid.

adopt a CCT program, and as such there is a plethora of information pertaining to their respective welfare designs. However, this is not representative of all CCT programs and as such may run into bias. I mitigate this through the sample size  $n$  within each country. Because each country has a sufficiently large sample size and are below 10% of the actual population, I may assume independence when sampling, thus limiting heteroskedasticity concerns. Second, the variable definitions are fairly broad. Within each of these categories listed in the “Variables” subheader contains overlapping or misplaced sub-variables. Though this is solved through careful selection of variables, there still may be some that are erroneously placed into certain categories. Finally, each country within the LAPOP Data Playground and raw STATA files do not differentiate between socioeconomic statuses. This poses an issue in terms of comparing CCTs and unconditional cash transfer programs (UCTs). It is trivial to say that a means-tested program has the ability to alleviate financial concerns, thus opening people to more opportunities. However, it is nontrivial and far more meaningful to determine whether conditionality changes the effects. For the scope of this thesis, though, a quantitative study solely about CCTs is sufficient.

## Chapter IV: Analysis

This section is organized as follows. I interpret the results from the regression table, discuss what it means both statistically and practically, and give historical context on why the results are what they seem. Each country gets their own section, along with their own analyses.

### Overview of Mexico and Brazil Models

**Tables 1 and 2** represent the fixed effects multilevel logistic regression for civic engagement, political participation, and trust for Mexico from 2010 to 2018, and **Tables 3 and 4** represent the fixed effects regression models for Brazil from 2010 to 2018 as well. I introduce time-fixed effects in order to control for any variables that are constant across states but vary across years. Significance values are listed at the bottom of the table by stars at the 10%, 5%, and 1% significance levels. All of the coefficient values in the following tables within this chapter are represented in logarithmic odds — to interpret the independent variable (CCTs), the value listed is just the multiplier compared to those that do not receive the treatment. For example, for the community meetings variable (“Community”), for people that received a CCT treatment, the odds of attending a community meeting increases by 44% compared to someone who did not receive a CCT treatment.<sup>62</sup> The lack of the 2010 year variable is intentional. The regression package takes one of the years and treats it as the baseline year, and all other year effects are interpreted relative to the baseline year. So, in the case of the Community variable once again, the 2012 logarithmic odds ratio can be interpreted as the chance of moving up one level in the Community variable decreases by 30.2% for the year 2012 relative to 2010, holding all other variables constant. The only difference between the models is the last one, “PolID”. Because the

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<sup>62</sup> This is calculated as:  $(1.439-1)*100\%$ . This is using Table 1 data.

dependent variable is coded as a binary variable and does not have multiple differentiating levels, we can represent it as a normal logistic regression with it still being interpreted by logarithmic odds. All regressions that contain a “Constant” row entry in the regression table can be interpreted as using normal logistic regression analysis.

### **How do CCTs shape civic engagement in Mexico?**

With fixed effects introduced, it is evident that receiving CCTs increases the chance of attending community, parent, party, and women’s meetings significantly at either the 1% to 5% level, which is in line with my original hypothesis. Four out of the six variables listed in this regression show significance at the 1% level (Community, Parent, WomenGrp, PolID), one is at the 5% level (PartyMtg), and the rest are not significant (RelOrgs). Despite the regression model dropping around 2,000 entries due to incomplete responses, I can still conclude the statistical significance of the results for civic engagement variables.<sup>63</sup>

For Mexican citizens who receive CCT, the odds that they are more likely to attend a community meeting increases by 44%, compared to those who did not receive it. Additionally, for those that attend political party meetings, those that received the CCT increased their odds of attending by 63.9% compared to nonrecipients. Now that there is more money flowing in the household, the emphasis on survival is less pronounced, allowing an impoverished household to engage in other activities. Additionally, the future of CCT programs is determined by the federal government and future politicians, so it makes sense that party meeting attendance odds increase so that voters may see the position that future candidates have on CCTs. Additionally, for those that received a CCT, the odds of them attending parent associations at school increases by

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<sup>63</sup> One thing to note about LAPOP’s fieldwork in 2018 - it began in January 2019 and ended March 2019. Brazil has the same survey methodology as well.

18.3%. The largest odds come from the attendance of women's groups, where for *women* that had received a CCT, they were 76% more likely to attend a women's group meeting compared to those that did not receive it.<sup>64</sup> The increases in odds for attendance in parent association and women's meetings make sense given the original intent for *Progres-a-Oportunidades*, as it provides women with greater agency to attend to other activities besides domestic housework. Money was only to be distributed to female household heads or the wives of household heads contingent on compliance with the conditionalities of the program, such as medical care and school attendance for children.<sup>65</sup> With that extra money now in the household, women have the opportunity to focus on other matters besides housework and putting food on the table for the family, such as engaging with other women in women's groups or the larger community.

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<sup>64</sup> This is only for women because women's groups are limited to attendance only by women in LAPOP's survey methodology. This is represented by the lack of coefficients in the corresponding gender variable due to perfect multicollinearity and less observations compared to the other regression observations.

<sup>65</sup> Blair G. Darney et al., "The Oportunidades Conditional Cash Transfer Program: Effects on Pregnancy and Contraceptive Use among Young Rural Women in Mexico," *International Perspectives on Sexual and Reproductive Health* 39, no. 04 (December 2013): pp. 205-214, <https://doi.org/10.1363/3920513>, p. 206.

Table 1: Mexico Regression, Civic Engagement

	Civic Engagement				
	Community	PartyMtg	Parent	RelOrgs	WomenGrp
CCT	1.439*** (0.072)	1.639*** (0.085)	1.183** (0.068)	1.039 (0.064)	1.760*** (0.122)
Gender	1.035 (0.061)	1.120 (0.075)	0.438*** (0.057)	0.849*** (0.053)	
Age	1.014*** (0.002)	1.005* (0.003)	0.986*** (0.002)	1.005*** (0.002)	1.013*** (0.004)
Income	0.987* (0.007)	0.993 (0.009)	1.000 (0.007)	1.005 (0.006)	0.996 (0.013)
Religion	0.902*** (0.035)	0.926* (0.043)	0.966 (0.032)	0.461*** (0.034)	0.799*** (0.072)
Number of Children	1.014 (0.024)	0.960 (0.030)	1.585*** (0.023)	1.008 (0.021)	1.043 (0.042)
Education	1.042*** (0.008)	1.018* (0.010)	1.046*** (0.008)	1.013* (0.007)	1.017 (0.016)
Party Trust	1.039* (0.022)	1.328*** (0.027)	1.048** (0.021)	1.053*** (0.019)	1.132*** (0.038)
Local Government Trust	1.000 (0.020)	0.976 (0.025)	1.005 (0.018)	1.006 (0.017)	1.044 (0.035)
Leg Trust	1.063*** (0.020)	0.985 (0.026)	1.026 (0.019)	0.984 (0.018)	0.917** (0.036)
Exec Trust	0.977 (0.020)	0.951** (0.025)	0.966* (0.018)	1.008 (0.017)	1.031 (0.036)
Urban/Rural	0.592*** (0.071)	0.811** (0.088)	0.893* (0.068)	0.733*** (0.064)	0.802* (0.125)
2012	0.698*** (0.113)	0.627*** (0.146)	1.248** (0.098)	1.138 (0.094)	1.115 (0.188)
2014	1.017 (0.102)	1.280* (0.126)	1.071 (0.094)	1.090 (0.089)	1.445** (0.179)
2016	1.017 (0.102)	1.280* (0.126)	1.071 (0.094)	1.090 (0.089)	1.445** (0.179)
2018	1.035 (0.101)	1.139 (0.126)	1.139 (0.094)	0.784*** (0.090)	0.849 (0.186)
norte	0.682*** (0.075)	1.149* (0.084)	1.182*** (0.064)	1.088 (0.060)	1.427*** (0.119)
Observations	5,534	5,518	5,525	5,544	2,760

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01



## How do CCTs shape political participation in Mexico?

Unlike the Mexico civic engagement variables, the political participation variables display less significance overall, though there are fewer variables to report. Only one of the four variables display any kind of significance, with the rest displaying no significance at all.

For those that received a CCT, the odds that they voted in the last presidential election increases by 33% compared to those that did not receive a CCT. The linkage between CCTs, voter turnout, and the incumbency effect has been extensively studied. Essentially, low-income voters like the ones that CCTs target reward politicians through voter turnout and election results when they implement CCTs.<sup>66</sup> This reward is also found to be casually skewed towards the incumbent, boosting their vote share in the process.<sup>67</sup> Additionally, the odds that a CCT recipient identifies with a political party increases by 28% compared to nonrecipients. Again, academic literature has studied this extensively. In the case of *Progres-a-Oportunidades*, three women from each village in Mexico were chosen to be the bridge between program staff and the community. This bridge has allowed some of these women to get into politics, even though there was no formal mechanism to do so, thus increasing political interest and political party identification in the process.<sup>68</sup> It is important to note that the variables used to measure turnout and political party identification in the regression do not take into account the candidate or their party. So while we cannot observe the incumbency effect explicitly, we can observe that the odds for election turnout is higher for CCT recipients, which is still significant.

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<sup>66</sup> Victor Araújo, “Do Anti-Poverty Policies Sway Voters? Evidence from a Meta-Analysis of Conditional Cash Transfers,” *Research & Politics* 8, no. 1 (2021): pp. 1-9, <https://doi.org/10.1177/2053168021991715>, p. 7.

<sup>67</sup> Ana L. De La O, “Do Conditional Cash Transfers Affect Electoral Behavior? Evidence from a Randomized Experiment in Mexico,” *American Journal of Political Science* 57, no. 1 (2012), <https://doi.org/10.1111/j.1540-5907.2012.00617.x>, p. 11.

<sup>68</sup> *Ibid.*, p. 11.

Table 2: Mexico Regression, Political Participation

	Political Participation				
	Protest	VotedLastYear	PolInterest	WatchNews	PolID
CCT	1.095 (0.131)	1.331*** (0.085)	1.074 (0.063)	0.926 (0.066)	1.283*** (0.084)
Gender	0.894 (0.107)	0.657*** (0.069)	1.153*** (0.051)	1.254*** (0.054)	1.212*** (0.068)
Age	1.016*** (0.004)	1.070*** (0.003)	1.002 (0.002)	1.020*** (0.002)	1.025*** (0.002)
Income	0.990 (0.012)	1.005 (0.008)	1.037*** (0.006)	1.039*** (0.007)	1.045*** (0.008)
Religion	1.109* (0.057)	0.914** (0.037)	1.008 (0.029)	0.856*** (0.030)	0.951 (0.039)
Number of Children	1.000 (0.043)	1.123*** (0.028)	0.963* (0.021)	1.049** (0.022)	0.970 (0.028)
Education	1.077*** (0.014)	1.132*** (0.010)	1.110*** (0.007)	1.081*** (0.008)	1.026*** (0.009)
Party Trust	0.930 (0.133)	0.861* (0.084)	0.974 (0.062)	1.115* (0.066)	1.112 (0.086)
Local Government Trust	1.178*** (0.040)	1.123*** (0.027)	1.196*** (0.019)	0.962* (0.020)	1.194*** (0.024)
Leg Trust	0.988 (0.034)	0.970 (0.022)	1.019 (0.017)	1.016 (0.018)	1.001 (0.022)
Exec Trust	0.908*** (0.036)	1.011 (0.023)	1.016 (0.017)	1.043** (0.018)	0.982 (0.023)
Urban/Rural	0.930** (0.035)	1.026 (0.023)	1.060*** (0.017)	1.038** (0.018)	1.044* (0.022)
2012	0.598** (0.227)	1.020 (0.126)	0.814** (0.090)	0.554*** (0.097)	1.431*** (0.111)
2014	1.304 (0.183)	0.765** (0.118)	0.802** (0.087)	0.555*** (0.094)	0.529*** (0.116)
2016	1.304 (0.183)	0.765** (0.118)	0.802** (0.087)	0.555*** (0.094)	0.529*** (0.116)
2018	1.163 (0.186)	1.280** (0.123)	0.797*** (0.086)	0.625*** (0.093)	0.427*** (0.115)
norte	0.750** (0.130)	1.006 (0.080)	0.784*** (0.059)	1.159** (0.063)	1.587*** (0.075)
Constant	0.024*** (0.365)	0.070*** (0.246)			0.043*** (0.236)
Observations	5,541	5,527	5,551	5,527	5,507
Log Likelihood	-1,427.155	-2,743.757			-2,805.444
Akaike Inf. Crit.	2,890.309	5,523.514			5,646.887

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

### How does CCT shape trust in Mexico?

Because trust is integral in civic engagement under Green and Brock's definition, I decide to regress trust as a dependent variable and the CCT treatment as an independent variable. **Table 3** displays four trust variables (local government trust, legislative trust, political party trust, and executive trust) within a fixed multilevel ordinal logistic regression.

There is significant evidence that CCTs increase the odds of trusting political parties and levels of government. Executive, party, local government, and legislative trust also see similar gains, with the odds of CCT recipients being more likely to trust them increasing by 44%, 26%, 25%, and 19% compared to those that did not receive the CCT, respectively. Previous literature has shown the effects of CCTs on positively affecting incumbent vote shares.<sup>69</sup> Incumbency not only applies to the candidate, but the political party as well. If a party either maintains or improves the CCT program, then we will see recipients trust the party more in keeping the CCT program alive.

The odds for the government trust dependent variables are explained by the way the program is administered. From its inception, *Progres-a-Oportunidades* was built on a "horizontal" analysis within the executive branch, meaning that there was integration within each ministry.<sup>70</sup> Ministries were restructured within the program in order to reduce administrative bloat and to create a streamlined system.<sup>71</sup> *Progres-a-Oportunidades* is also a centrally-run program. The federal administrative unit determines eligibility of households from each filled survey, and then coordinates the CCT program with other federal ministries and agencies.<sup>72</sup> State governments are responsible for the provision of health and educational services, and federal

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<sup>69</sup> Ibid., p. 11.

<sup>70</sup> Santiago Levy, *Progress against Poverty: Sustaining Mexico's Progres-a-Oportunidades Program* (Washington, District of Columbia: Brookings Institution Press, 2006), p. 92.

<sup>71</sup> Ibid, p. 94.

<sup>72</sup> Ibid, p. 96.

health and education ministries coordinate with state governments to design and implement the services effectively.<sup>73</sup> Congress, which deals with passing budget proposals, was made sure to be informed of the program as well, where the president's budget proposal included detailed explanation of all funds going to the CCT before the proposal passed.<sup>74</sup> **Figure 3** from Levy's *Progress against Poverty* summarizes the institutional design. The increase in political trust makes sense — if the incumbent party maintains the program well and prevents mishaps due to incompetence or corruption, the party responsible at the time would have added trust.<sup>75</sup>

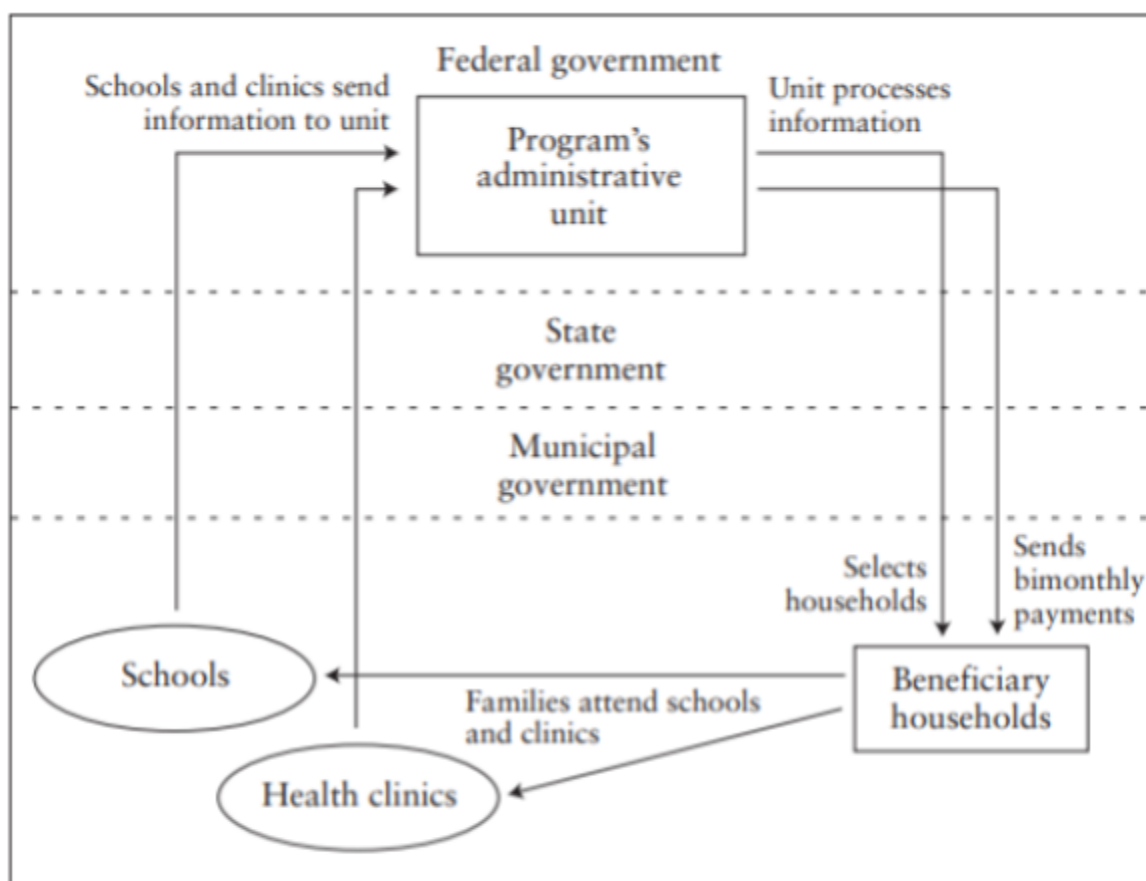


Figure 3: Institutional design of *Progres-Oportunidades*. The lack of a middleman between the president and beneficiaries is done to lessen potential corruption. Source: Santiago Levy.

<sup>73</sup> Ibid, pp. 96-97.

<sup>74</sup> Ibid, p. 109.

<sup>75</sup> Ana L. De La O, "Do Conditional Cash Transfers Affect Electoral Behavior? Evidence from a Randomized Experiment in Mexico," p. 4.

This trust would also not be abused due to explicit prohibition of vote-buying and other clientelistic behavior according to the program's rules on official documents.<sup>76</sup>

“We remind you that your participation in *Oportunidades* and receipt of benefits are in no way subject to affiliation with any specific political party or to voting for any specific candidate running for public office. No candidate is authorized to grant or withhold benefits under the program. Eligible beneficiary families will receive support if they show up for their doctor's visits and health education talks and if their children attend school regularly. Any person, organization, or public servant that makes undue use of program resources will be reported to the competent authority and prosecuted under applicable legislation. Subjecting social programs to electoral or political requirements is a federal offense punishable by law. No public servant may use his or her position or resources to influence votes for or against any specific party or candidate. *Oportunidades* is a public initiative and the granting or continuation of program benefits does not depend on political parties or candidates.”

The successful implementation of these CCTs increase trust of these institutions, mobilizing voters to support candidates that will keep CCTs from discontinuation rather than persuading them to show up at the ballot boxes.<sup>77</sup>

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<sup>76</sup> Santiago Levy, *Progress against Poverty: Sustaining Mexico's Progresa-Opportunidades Program*, p. 107.

<sup>77</sup> Ana L. De La O, “Do Conditional Cash Transfers Affect Electoral Behavior? Evidence from a Randomized Experiment in Mexico,” p. 10.

Table 3: Mexico Regression, Trust

	Trust			
	LGovTrust	LegTrust	PolTrust	ExecTrust
CCT	1.253*** (0.058)	1.185*** (0.060)	1.260*** (0.059)	1.440*** (0.060)
Gender	1.194*** (0.047)	0.998 (0.048)	1.101** (0.049)	1.132** (0.048)
Age	1.001 (0.002)	1.002 (0.002)	1.004** (0.002)	1.019*** (0.002)
Income	1.005 (0.006)	0.995 (0.006)	0.996 (0.006)	0.994 (0.006)
Religion	0.793*** (0.027)	0.843*** (0.027)	0.825*** (0.028)	0.819*** (0.028)
Number of Children	1.014 (0.019)	0.986 (0.020)	1.003 (0.019)	1.044** (0.019)
Education	0.964*** (0.006)	0.966*** (0.007)	0.974*** (0.007)	0.997 (0.007)
Urban/Rural	0.940 (0.058)	0.946 (0.060)	0.887** (0.060)	0.776*** (0.060)
2012	1.138 (0.084)	0.946 (0.087)	1.303*** (0.085)	1.127 (0.083)
2014	0.714*** (0.078)	0.571*** (0.080)	0.458*** (0.081)	0.219*** (0.081)
2016	0.714*** (0.078)	0.571*** (0.080)	0.458*** (0.081)	0.219*** (0.081)
2018	0.885 (0.079)	0.971 (0.081)	0.906 (0.080)	2.140*** (0.081)
norte	1.730*** (0.054)	1.497*** (0.055)	1.822*** (0.055)	1.953*** (0.055)
Observations	5,894	5,631	5,866	5,890

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Controls and Other Observations for Mexico Regressions

For all Mexico regressions, education plays a significant role. Almost all of the coefficients under the education control display statistical and practical significance. Other scholarly literature have noted the linkage between education and gains in civic engagement and political participation, along with trust for authority.<sup>78</sup> However, this evidence contradicts the results in the trust regression, where a one-year increase in education actually decreases trust across government institutions and political parties. Factoring in fixed effects for 2014 and 2016, one can see that for those years, the odds of trusting government and political parties decreases. This lack of trust can be attributed to the aftermath of the 2012-2013 *Yo Soy 132* protests in Mexico, where students at Ibero-American University protested against PRI presidential candidate Enrique Peña Nieto. At an open forum where Peña presented his presidential candidate platform, students brought up his role as governor in violently crushing the 2006 San Salvador Atenco protests, where police engaged in excessive force, mass arrests, and sexual abuse against female protestors.<sup>79</sup> Peña defended his role in the protests, asserting:

"I make very clear the firm determination of the government to enforce the rights of the population of the state of Mexico. That when they were affected by private interests, I made the decision to use the use of public force to reestablish order and peace, and that unfortunately there were incidents on the subject that were duly sanctioned and that those responsible for the events were brought before the judiciary... It was a determined action, which I personally [assumed], to [restore] order and peace in the legitimate right of the

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<sup>78</sup> John Bynner, Thomas Schuller, and Leon Feinstein, "Wider Benefits of Education: Skills, Higher Education and Civic Engagement," *Wider Benefits of Education: Skills, Higher Education and Civic Engagement* 48, no. 3 (2003): pp. 341-361, <https://doi.org/10.25656/01:3882>, p. 355.

<sup>79</sup> Belén Zapata, "Atenco, El Tema Que 'Encendió' a La Ibero Y Originó #YOSOY132," *Expansión*, February 15, 2016, <https://expansion.mx/nacional/2012/06/04/atenco-el-tema-que-encendio-a-la-ibero-y-origino-yosoy132>.

Mexican state to make use of public force, as I must also say, was validated by the Supreme Court of Justice of the Nation.”<sup>80</sup>

This quote, along with Peña dodging student protestors in a later event, incited protests already inflamed over alleged human rights abuses committed by Mexico from 2005-2011.<sup>81</sup> The PRI also suffered in public perception from Peña’s response, as a student recalled that his speech “showed himself to be more authoritarian, ... to be more like the old PRI.”<sup>82</sup> The PRI suffered from a public opinion crisis long before 2012. The party held power from 1946-2000 as a single-party state for the majority of its time through patronage politics and other clientelistic practices.<sup>83</sup> This corruption was publicly known — for example, in a 1995 survey, 88% of those surveyed agreed that corruption was widespread and 62% asserted that bribery was necessary in order to resolve problems.<sup>84</sup> Additionally, the PRI committed several human rights abuses during the *guerra sucia*, or dirty war. From 1964-1982, the PRI-led government quelled dissent from leftist protestors by carrying out disappearances of protestors, torture, and probable extrajudicial executions<sup>85</sup> With all of the background information in mind, it is understandable why the odds of government and political party trust decreased during 2014 and 2016.

Gender also significantly affects the dependent variables, specifically for attendance in political party meetings, religious organizations, and voting in the last presidential election.

Starting with political party meetings, the odds of being more likely to attend a political party

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<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

<sup>83</sup> John Bailey and Pablo Paras, “Perceptions and Attitudes about Corruption and Democracy in Mexico,” *Mexican Studies/Estudios Mexicanos* 22, no. 1 (2006): pp. 57-82, <https://doi.org/10.1525/msem.2006.22.1.57>, pp. 61-62.

<sup>84</sup> Stephen D. Morris, “Corruption and the Mexican Political System: Continuity and Change,” *Third World Quarterly* 20, no. 3 (June 1999): pp. 623-643, <https://doi.org/https://www.jstor.org/stable/3993325>, p. 625.

<sup>85</sup> National Human Rights Commission, “INFORME ESPECIAL SOBRE LAS QUEJAS EN MATERIA DE DESAPARICIONES FORZADAS OCURRIDAS EN LA DECADA DE LOS 70 Y PRINCIPIOS DE LOS 80.,” Wayback Machine, 2013, [https://web.archive.org/web/20130308021545/http://www.cndh.org.mx/sites/all/fuentes/documentos/informes/especiales/2001\\_Desapariciones70y80.pdf](https://web.archive.org/web/20130308021545/http://www.cndh.org.mx/sites/all/fuentes/documentos/informes/especiales/2001_Desapariciones70y80.pdf), p. 7.



meeting decreases by 56.2% given that the subject is a male. For religious organizations, the odds of being more likely to attend a religious organization meeting decreases by 15.1% given the subject is a male. Finally, for voting in the last presidential election, the odds of voting in the last presidential election decreases by 34.3% if the subject is a male. The complement for these odds is that it represents an increase in the odds of doing these previous events for women compared to men. Referring to Sen's theories of development, the increase in income allows for Mexican women to participate more in their community and political structure since they now have supplemental income. Also, the CCT conditionalities that state the woman of the household can only touch the money may warp the traditional gender norms present in Mexican households, giving women more agency to do other activities besides homemaking.<sup>86</sup>

It is also important to touch on the Urban/Rural variable. This binary variable is used to signify whether the person surveyed is from an urban or rural region, taking the value 1 if urban and 0 if rural. What is interesting to note is that nearly all of the significant coefficients under the Urban/Rural control have a negative effect. Simply put, the odds of being more likely to attend a meeting, identify with a political party, trusting government institutions, and other dependent variable indicators decreases if one lives in an urban area. Implicitly, this means that people living in rural areas have higher odds to attend said events compared to their urban counterparts. This coincides with the effects of the CCT program on rural poverty. In 2014, the proportion of Mexican rural residents that fell under the international poverty line (\$1.90 in 2014 dollars) fell from 27.5% to 14.6%.<sup>87</sup> In that same vein, from 2010-2016, Mexican rural poverty decreased by

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<sup>86</sup> Nina Evason, "Mexican Culture - Family," Cultural Atlas, 2018, <https://culturalatlas.sbs.com.au/mexican-culture/mexican-culture-family>.

<sup>87</sup> Paloma Villagómez Ornelas, "Rural Poverty in Mexico: Prevalence and Challenges," Coneval (National Council for the Evaluation of Social Development Policy, March 22, 2019), <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2019/03/RURAL-POVERTY-IN-MEXICO.-CONEVAL.-Expert-Meeting.-15022019.pdf>.

10% and extreme poverty fell by over 30% due to the effects of *Progres-Oportunidades*.<sup>88</sup> As such, it is safe to say that the effects shown in the regression can be traced to the effects of *Progres-Oportunidades*.

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<sup>88</sup> Ibid.

## How do CCTs shape civic engagement in Brazil?

**Table 4** displays the regression results for Brazil's civic engagement variables. Overall, the results show high significance among three out of the five categories (Community, Parent, PartyMtg). Although 1,900 to 2,000 variables were dropped due to missing observations in the CCT variable, I can still conclude that the results were significant both statistically and practically.<sup>89</sup>

With regards to community organizations, for those that received the CCT, the odds of them being more likely to attend a community organization meeting increases by 14.8% compared to those that did not receive the CCT. The highest odds come from attending parent association meetings, where the odds increase by 46% for CCT recipients compared to nonrecipients. Attendance of parent meetings at school follow a similar trend — for those that received a CCT, the odds of attending a political party meeting increased by 23% compared to those that did not receive the CCT. Now because there is more time to participate in other activities besides focusing on survival with poverty-level income, participating in political activities is no longer a daydream. Additionally, because the CCT program benefits those in poverty, some impoverished citizens may participate in politics because they now have a stake in the program's future, leading to them attending party meetings so as to be informed politically.

These gains can be attributed to the conditionalities within Brazil's CCT program, *Bolsa Família*. To understand *Bolsa Família* entirely, one has to look back to 1995. The Family Grant Program for Education was Brazil's first experiment in CCT programs, targeting children in poor families between 7 and 14 years of age in the Federal District. They were supplemented minimum wage on the condition that children in the family had to maintain a 90% attendance

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<sup>89</sup> A note on the missing coefficient in 2018: LAPOP unfortunately decided to stop asking surveyed women whether they attended women's group meetings. Even though I am missing one year, the results for the regression should still hold without loss of statistical rigor.

rate in school.<sup>90</sup> This idea, coupled with other programs that dealt with child healthcare (Minimum Income Guarantee Program) and the elimination of child labor (Programme for the Eradication of Child Labor, PETI) led to the creation of Bolsa Escola, targeting poor families that made half of minimum wage and children between the ages of 6 and 15. Subsequent programs were created such as a food grant for poor families (Bolsa Alimentação) and an unconditional grant to compensate poor families for the removal of cooking gas subsidies (Auxílio Gás).<sup>91</sup> By 2003, the Lula administration recommended the merger of PETI, Bolsa Escola, Bolsa Alimentação, and Auxílio Gás in order to lessen administrative and bureaucratic bloat, culminating into *Bolsa Família*.

Unlike Progres-Oportunidades which used a points-based formula to determine eligibility, *Bolsa Família* determines eligibility through self-reported family per capita income and the number of children and teenagers through households.<sup>92</sup> These reports are centralized in a registry. Families below the poverty line receive a base benefit along with added benefit determined by the number of children and teenagers within the household. Though the objectives of the program and payment are determined and doled out at the federal level, it is the state and municipal government that do the heavy lifting — they top off transfers and provide additional benefits to applicable beneficiaries through the registry, along with ensuring compliance with the conditionalities.<sup>93</sup> Additionally, payments are made directly to the woman of the household, with the objective of compensating them for their gendered work in the household and so that the money would be more likely passed down to their children.<sup>94</sup>

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<sup>90</sup> Fabio Veras Soares, “Brazil’s Bolsa Família: A Review,” *Economic and Political Weekly* 46, no. 21 (May 21, 2011): pp. 55-60, <https://doi.org/https://www.jstor.org/stable/23017226>, p. 56.

<sup>91</sup> Ibid., p. 56.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid., p. 57.

<sup>94</sup> Alan de Brauw et al., “The Impact of Bolsa Família on Women’s Decision-Making Power,” *World Development* 59 (2014): pp. 487-504, <https://doi.org/10.1016/j.worlddev.2013.02.003>, p. 487.

Table 4: Brazil Logistic Regression, Civic Engagement

	Civic Engagement				
	Community	PartyMtg	Parent	RelOrgs	WomenGrp
CCT	1.148* (0.083)	1.233** (0.092)	1.463*** (0.064)	1.031 (0.060)	1.114 (0.148)
Gender	1.351*** (0.067)	1.446*** (0.075)	0.585*** (0.053)	0.723*** (0.048)	
Age	1.015*** (0.002)	0.997 (0.003)	0.990*** (0.002)	1.005*** (0.002)	1.021*** (0.005)
Income	0.992 (0.009)	0.999 (0.010)	1.000 (0.007)	1.010 (0.007)	1.004 (0.018)
Religion	0.925* (0.047)	0.888** (0.054)	0.814*** (0.037)	0.442*** (0.037)	0.746** (0.116)
Number of Children	1.062* (0.031)	1.010 (0.035)	1.635*** (0.025)	0.977 (0.023)	1.081 (0.057)
Education	1.043*** (0.010)	1.015 (0.011)	1.027*** (0.008)	1.027*** (0.007)	1.002 (0.018)
Party Trust	1.075*** (0.024)	1.155*** (0.026)	0.986 (0.019)	1.023 (0.017)	1.050 (0.044)
Local Government Trust	1.046** (0.019)	1.078*** (0.022)	1.032** (0.015)	1.027* (0.014)	1.063* (0.036)
Leg Trust	1.022 (0.021)	1.001 (0.024)	0.994 (0.017)	0.995 (0.015)	1.019 (0.038)
Exec Trust	0.950*** (0.019)	0.978 (0.022)	1.012 (0.015)	1.027* (0.014)	1.005 (0.037)
Urban/Rural	0.461*** (0.085)	0.869 (0.103)	0.990 (0.075)	1.165** (0.068)	0.636*** (0.158)
2012	0.597*** (0.112)	0.291*** (0.129)	0.544*** (0.087)	0.896 (0.081)	0.396*** (0.194)
2014	0.695*** (0.123)	0.295*** (0.150)	0.834** (0.092)	1.081 (0.086)	0.462*** (0.222)
2016	0.804** (0.101)	0.410*** (0.113)	0.717*** (0.080)	1.462*** (0.073)	0.503*** (0.174)
2018	1.093 (0.100)	1.082 (0.102)	1.222** (0.082)	1.052 (0.077)	
norte	1.077 (0.088)	1.189* (0.097)	1.023 (0.070)	1.395*** (0.064)	1.063 (0.163)
Observations	6,500	6,489	6,496	6,496	2,669

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

## How do CCTs shape political participation in Brazil?

**Table 5** displays the regression results for Brazil's political participation variables. The results are surprising. Besides watching news, none of the other three variables are statistically significant at all. The only two significant results in the regression table: the likelihood of watching the news and political party identification. For those that received a CCT, the odds of them being more likely to watch the news increases by 12.4% compared to people that did not receive a cash transfer. Again, this can be attributed to having more time because of the lesser emphasis on survival, but also because CCT recipients want to keep track of the program's survival and status in government. Without *Bolsa Familia*, they could slip back into poverty. Finally, the odds of identifying with a political party increases for CCT recipients by 36% compared to nonrecipients. Again, having more time because of a lesser emphasis on constant survival means the ability to do other activities, or in this case, politics. Also, people will most likely support and identify with the political party that wants to keep the CCT program in place.<sup>95</sup> While the analysis does not show which party is being supported and identified with the most, the increase in odds is still significant enough to warrant discussion.

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<sup>95</sup> Victor Araújo, "Do Anti-Poverty Policies Sway Voters? Evidence from a Meta-Analysis of Conditional Cash Transfers," p. 7

Table 5: Brazil Regression, Political Participation

	Political Participation				
	Protest	VotedLastYear	PolInterest	WatchNews	PolID
CCT	1.161 (0.123)	1.069 (0.086)	1.063 (0.064)	1.124* (0.066)	1.363*** (0.075)
Gender	1.260** (0.094)	0.911 (0.072)	1.544*** (0.051)	1.280*** (0.053)	1.281*** (0.060)
Age	0.988*** (0.004)	1.064*** (0.003)	1.003 (0.002)	1.017*** (0.002)	1.011*** (0.002)
Income	1.012 (0.012)	1.019** (0.010)	1.044*** (0.007)	1.038*** (0.008)	1.014 (0.009)
Religion	1.045 (0.058)	0.923* (0.045)	0.952 (0.034)	0.919** (0.035)	0.925* (0.041)
Number of Children	0.896** (0.049)	1.245*** (0.037)	0.981 (0.024)	1.048* (0.025)	0.965 (0.029)
Education	1.158*** (0.015)	1.139*** (0.012)	1.108*** (0.008)	1.089*** (0.008)	1.018** (0.009)
Party Trust	1.079 (0.150)	0.829* (0.104)	0.785*** (0.073)	1.340*** (0.074)	1.003 (0.087)
Local Government Trust	1.112*** (0.037)	0.989 (0.026)	1.144*** (0.019)	0.949*** (0.019)	1.169*** (0.021)
Leg Trust	0.992 (0.029)	1.005 (0.021)	1.059*** (0.015)	0.965** (0.016)	0.995 (0.018)
Exec Trust	0.930** (0.032)	0.981 (0.022)	0.989 (0.016)	0.994 (0.017)	0.992 (0.019)
Urban/Rural	0.947* (0.028)	1.069*** (0.020)	1.062*** (0.015)	1.058*** (0.015)	1.081*** (0.017)
2012	0.520*** (0.247)	1.148 (0.168)	0.773** (0.103)	0.503*** (0.107)	0.919 (0.122)
2014	1.127 (0.182)	0.508*** (0.127)	0.831** (0.086)	1.529*** (0.093)	0.734*** (0.103)
2016	2.135*** (0.169)	0.606*** (0.127)	1.131 (0.085)	0.995 (0.090)	0.680*** (0.105)
2018	1.573*** (0.170)	0.476*** (0.123)	1.144 (0.097)	1.299*** (0.089)	0.686*** (0.100)
norte	1.128 (0.127)	1.383*** (0.105)	1.194*** (0.069)	1.211*** (0.074)	0.994 (0.081)
Constant	0.025*** (0.337)	0.189*** (0.257)			0.103*** (0.208)
Observations	6,513	6,518	5,817	6,507	6,465
Log Likelihood	-1,738.826	-2,672.055			-3,547.631
Akaike Inf. Crit.	3,513.653	5,380.110			7,131.262

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

## How do CCTs shape trust in Brazil?

Once again, Green and Brock's definition of civic engagement heavily relies on trust as a foundation for increasing civic engagement. **Table 6** displays the regression for the four trust variables in Brazil. All results are significant at the 1% level and show positive odds for trust given if the subject received a CCT compared to those that did not.

For those that receive a CCT, the odds of them being more likely to trust the local government, the legislature, political parties in Brazil, and the executive increase by 11%, 14.6%, 11.9%, and 24.9%, respectively. The coefficients, coupled with respective low standard errors, means that the results are practically significant as well.

The subchapter on civic engagement went into detail on the basic institutional design for *Bolsa Família*. Interestingly enough, *Bolsa Família* completely cuts out the need for state-level involvement, with credit given to the federal government itself.<sup>96</sup> Municipalities collaborating with the federal government come from Brazil's federalistic structure, where budget constraints and centralized subnational budgets contribute to said incentive for collaboration. The way how *Bolsa Família* payments are distributed contribute to legislative and executive trust. Direct payments are done through ATM-like cards which are given out to each eligible household. These families then go to *Caixa Econômica Federal* bank, a state-owned bank that also helps with registering low-income families, to receive the money. Beneficiaries are also given a booklet that explains how the program works, contributing to federal trust.<sup>97</sup> Plenty of help surrounding cash transfer withdrawals is also present. *Caixa* bank tellers, who are federal civil servants, assist with any problems. A provided toll-free number is also provided to encourage

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<sup>96</sup> Tracy Beck Fenwick, "Avoiding Governors: The Success of Bolsa Família," *Latin American Research Review* 44, no. 1 (2009): pp. 102-131, <https://doi.org/10.1353/lar.0.0073>, p. 118.

<sup>97</sup> Natasha Borges Sugiyama and Wendy Hunter, "Whither Clientelism? Good Governance and Brazil's Bolsa Família Program," *Comparative Politics* 46, no. 1 (January 2013): pp. 43-62, <https://doi.org/10.5129/001041513807709365>, p. 56.



those with problems to contact the ministry, giving Brazilian recipients a sense of security that they can “turn to bureaucratic channels for assistance.”<sup>98</sup> Additionally, *Bolsa Família* stresses transparency and anticorruption measures. It has a series of “fire alarms” that enable residents to report suspected fraud to a toll-free number or a local municipal council.<sup>99</sup> All citizens have easy access to a public database of all beneficiaries in a given city, which provides them the tools for citizen oversight. In order to protect against corrupt and clientelistic practices by federal state officials, the Federal Internal Audit Office provides audits into suspected fraud in the transfer of federal funds to municipalities.<sup>100</sup>

One final unique feature of *Bolsa Família* that establishes greater trust between the people and government institutions is its non-compliance clause. In the eyes of the program, non-compliance with conditionalities signifies that the recipient family is facing additional vulnerabilities and not because the family is lazy.<sup>101</sup> A social worker is assigned to help the family by first verifying the reasons why it is failing to uphold the conditionalities attached to the cash transfer and then referring it to a Social Assistance Reference Center (CRAS) for further help. Not only does this action prevent low-income families from sliding further into destitution, but also strengthens the trust between them and local government by emphasizing the care that the government has for the impoverished.

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<sup>98</sup> Ibid., p. 56.

<sup>99</sup> Ibid., p. 57.

<sup>100</sup> Ibid.

<sup>101</sup> Fabio Veras Soares, “Brazil's Bolsa Família: A Review,” p. 58.

Table 6: Brazil Regression, Trust

	Trust			
	LGovTrust	LegTrust	PolTrust	ExecTrust
CCT	1.110*** (0.056)	1.146*** (0.057)	1.119*** (0.058)	1.249*** (0.057)
Gender	1.071*** (0.044)	0.959*** (0.045)	0.998*** (0.046)	1.252*** (0.045)
Age	1.004*** (0.002)	0.998*** (0.002)	0.997*** (0.002)	1.011*** (0.002)
Income	1.007*** (0.006)	0.981*** (0.006)	0.987*** (0.007)	0.992*** (0.006)
Religion	0.911*** (0.030)	0.935*** (0.030)	0.930*** (0.031)	0.870*** (0.030)
Number of Children	0.992*** (0.022)	1.008*** (0.022)	0.999*** (0.022)	1.020*** (0.022)
Education	0.977*** (0.007)	0.954*** (0.007)	0.969*** (0.007)	0.963*** (0.007)
Urban/Rural	0.694*** (0.065)	0.827*** (0.065)	0.788*** (0.067)	0.759*** (0.065)
2012	0.686*** (0.092)	1.057*** (0.093)	0.949*** (0.095)	0.774*** (0.093)
2014	0.524*** (0.076)	0.589*** (0.077)	0.494*** (0.079)	0.295*** (0.078)
2016	0.554*** (0.072)	0.541*** (0.073)	0.364*** (0.075)	0.090 (0.078)
2018	0.675*** (0.075)	0.981*** (0.075)	0.530*** (0.077)	0.607*** (0.076)
norte	0.921*** (0.060)	1.375*** (0.062)	1.423*** (0.062)	1.173*** (0.061)
Observations	6,671	6,598	6,664	6,684
Note:		*p<0.1; **p<0.05; ***p<0.01		

## Controls and Other Observations for Brazil Regressions

Like the Mexico regressions, education plays a big role in civic engagement, political participation, and trust. However, some odds are small enough to the point where while they may be statistically significant, they may offer little to no practical significance at all. For example, under the education control for **Table 4**, all of the significant odds are low single-digit percentages, meaning that they offer little effect to overall civic engagement variables. For political participation, we can see that the results are mostly practically significant. On average, for every one year increase in education, the odds of protesting, voting in the last presidential election, and identifying with a political party increases by 16%, 14%, and 11% while holding all other variables constant, respectively. The link between protest and education has been well-documented in academic literature. A higher education means increased opposition towards government repression violence enacted by the state *or* protestors.<sup>102</sup> Voting and education have also been studied extensively. While it has been documented that being a student leads to higher voter turnout, that is not necessarily the case for an additional year of education — instead, it only has miniscule impact on voter turnout and little practical significance for voter registration.<sup>103</sup> Other factors such as income and general family background influence both education and voter turnout, in which the latter may be observed in **Table 5**. For example, income increases the chance of voting in last year's presidential election, though with small odds. Under the “norte” control variable, those that are located in the northern region have a 38% higher chance to have voted in the last presidential election. This can be attributed to the concentration of poverty in Brazil's northern region, as seen in **Figure 2**. Turnout may be higher

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<sup>102</sup> Robert L. Hall, Mark Rodeghier, and Bert Useem, “Effects of Education on Attitude to Protest,” *American Sociological Review* 51, no. 4 (1986): pp. 564-573, <https://doi.org/10.2307/2095588>, p. 571.

<sup>103</sup> Steven Tenn, “The Effect of Education on Voter Turnout,” *Political Analysis* 15, no. 4 (2007): pp. 446-464, <https://doi.org/10.1093/pan/mpm012>, p. 458.

due to the idea that citizens want to vote for candidates that may best represent their current situation, as well as candidates that may help alleviate certain concerns within their community. Finally, the connection between political interest and education has been documented extensively. It is a generally uncontested claim that formal education influences voter turnout, but it also increases other factors such as political efficacy, interest in political campaigns, and greater concern surrounding elections and their results, all of which fall under political interest.<sup>104</sup>

Gender is also significant across all of the regression tables. Compared to women, men are more likely to engage civically and politically. Brazil is a patriarchal society in which men are typically in positions of power, along with having control in both public and private spheres.<sup>105</sup> This transcends domestic life. Males in Brazil have higher odds of participating politically, peaking at 54% odds of being interested in politics. LAPOP's definition of political interest is fairly broad, as the question only asks "How much interest do you have in politics." As such, we can generalize and say that political interest ranges from keeping up with election results to running for public office. Brazil is also male-dominated when it comes to politics. Based on a 2017 World Bank report, while there have been gains in female representation in the political sphere, the gains are marginal — in 2010 and 2014, out of 513 deputies in the Chamber of Deputies in the Brazilian Congress, only 45 and 51 were female, representing only 8.8% and 9.9%, respectively.<sup>106</sup> The only two categories that were practically significant for women are attendance of political party meetings and religious organizations, for which they have higher odds of attendance. According to the 2010 Brazilian census, Roman Catholicism is the dominant religion, and more women identify as Roman Catholic compared to their male counterparts by

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<sup>104</sup> Michael S. Lewis-Beck and Philip E. Converse, *The American Voter Revisited* (Ann Arbor, MI: The University of Michigan Press, 2009), p. 102.

<sup>105</sup> Chara Scroope, "Brazilian Culture - Family," Cultural Atlas, 2018, <https://culturalatlas.sbs.com.au/brazilian-culture/brazilian-culture-family>.

<sup>106</sup> Mariana K. Ceratti, "What Does It Mean to Be a Woman in Brazil? The Answer Will Surprise You," World Bank (World Bank Group, March 15, 2017), <https://www.worldbank.org/en/news/feature/2017/03/08/ser-mujer-brasil>.

percentage.<sup>107</sup> It can be implied, then, that the number of women that actively practice surpasses men, which involves going to sites of worship and other religious group meetings. The party meetings coefficient can be explained by Brazil's gender quota for running candidates. In 1995, a regulation passed that set a "minimum quorum" for male and female candidates. However, due to the regulation not being enforced and because female candidates were seen as unviable, it did little to change the systemic issues that plagued women running for office in Brazil. In 2009, the regulation became compulsory, forcing parties to have at least 30% of their candidates identify as female. However, due to parties sidestepping the requirement by having fake female candidates run, a new change was implemented so that 30% of party and election funds be allocated to female candidates. The result was staggering: the number of women elected to the Chamber of Deputies in 2018 increased by about 50% (from 9.9% in 2014 to 15% in 2018).<sup>108</sup>

Year-fixed effects also display interesting results. Starting with 2014 and 2016 under parent association attendance, we can see that attendance at parent associations at school increased by 272% and 244%, respectively. This is linked to the effects of Brazil's Constitutional Amendment 59. The 2009 amendment mandated basic education and expanded the mandatory education age range from people aged 6-14 years old to 4-17 years old.<sup>109</sup> Program extension was to be completed by 2016 as well. Thus, it can be gathered that the number of people going through primary and secondary education increased on average, meaning that the odds of parents being more likely to attend their child's parent associations at school would increase as well.

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<sup>107</sup> Instituto Brasileiro de Geografia e Estatística, "Censo Demográfico: 2010," Censo Demográfico: 2010 § (2012), [https://biblioteca.ibge.gov.br/visualizacao/periodicos/94/cd\\_2010\\_religioa\\_deficiencia.pdf](https://biblioteca.ibge.gov.br/visualizacao/periodicos/94/cd_2010_religioa_deficiencia.pdf).

<sup>108</sup> Nathalia Gonçalves, "Feminism and Women's Political Rights in Brazil," Critical Legal Thinking, March 24, 2022, <https://criticallegalthinking.com/2022/03/24/feminism-and-womens-political-rights-in-brazil/>.

<sup>109</sup> Marislei Nishijima and Sarmistha Pal, "Do Compulsory Schooling Laws Always Work? A Study of Youth Crime in Brazilian Municipalities," *SSRN Electronic Journal*, no. 13097 (March 2020): pp. 2-50, <https://doi.org/10.2139/ssrn.3568302>, p. 3.

Additional observations come from 2016 and 2018 across all of the regression tables, specifically under dependent variables for women's group meetings, protest, and all types of trust. To understand the 2016 effects in relation to protest and trust, we must analyze events in the prior years, starting with Operation Car Wash. In 2014, state-owned energy company *Petrobras* was implicated in the largest corruption scandal in Brazilian history, where a number of its shareholders took bribes from construction companies and funded ruling coalition parties, totaling to \$22 billion dollars of suspicious contracts.<sup>110</sup> Additionally, supposed graft was also uncovered, occurring under Brazilian President Dilma Rousseff during her tenure as chair of *Petrobras*' board of directors from 2003 to 2010.<sup>111</sup> Whether Rousseff was involved in graft or not was irrelevant. Brazilians viewed the *Petrobras* scandal and Rousseff's supposed involvement as emblematic of the Brazilian government enabling corruption in the highest order. Protests erupted in 2015 calling for Rousseff's impeachment at a time when Brazil was in economic freefall — the Brazilian *real* dropped nearly 18% in value, contractionary fiscal policy was introduced, economic growth plummeted, and inflation surged to nearly 8% in early 2015.<sup>112</sup> **Figure 4** illustrates the dire economic situation in Brazil at the time.<sup>113</sup>

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<sup>110</sup> Ruth Costas, "Petrobras Scandal: Brazil's Energy Giant under Pressure," BBC News (BBC, November 21, 2014), <https://www.bbc.com/news/business-30129184>.

<sup>111</sup> Ibid.

<sup>112</sup> David Biller and Raymond Colitt, "More Than a Million Hit Brazil Streets to Protest Rousseff," Bloomberg.com (Bloomberg, March 15, 2015), <https://www.bloomberg.com/news/articles/2015-03-15/tens-of-thousands-march-in-brazil-streets-to-protest-rousseff>.

<sup>113</sup> CEPAL, "Preliminary Overview of the Economies of Latin America and the Caribbean: Brazil," CEPAL (United Nations, 2015), [https://repositorio.cepal.org/bitstream/handle/11362/39559/67/1501279BPI\\_Brazil\\_en.pdf](https://repositorio.cepal.org/bitstream/handle/11362/39559/67/1501279BPI_Brazil_en.pdf).

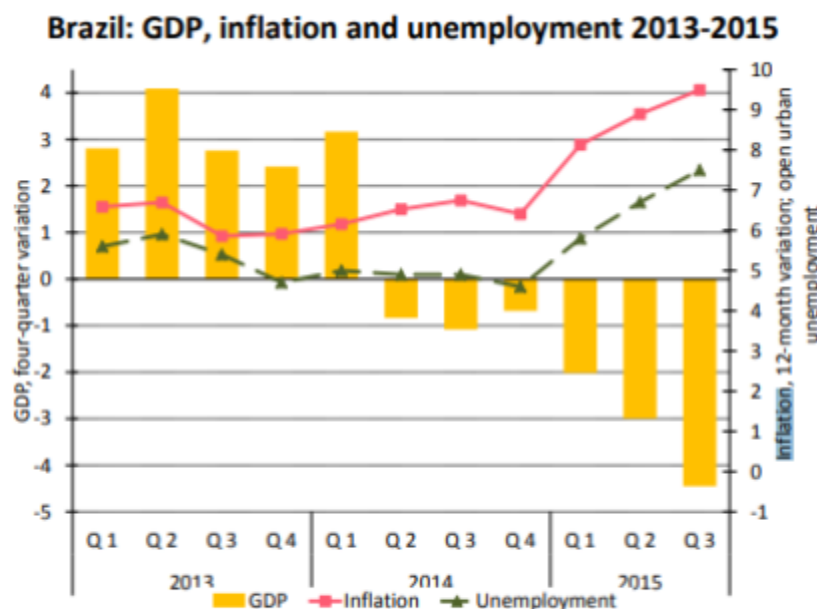


Figure 4: Brazil's GDP, inflation, and unemployment, 2013-2015. Source: CEPAL, United Nations

2016 saw the indictment of Rousseff's predecessor, Luiz Inácio Lula da Silva, after Brazilian police raided his residence and levied allegations that he benefited from the 2014 *Petrobras* bribery scandal, citing his undisclosed beachfront property that had costly renovations added onto it.<sup>114</sup> Evidence was also uncovered that Lula and Rousseff attempted to block the *Petrobras* investigation, with Rousseff trying to use the Justice Ministry connections to release suspects involved in the 2014 graft scandal.<sup>115</sup> Protests reignited, calling for Rousseff's impeachment and the end of the Workers' Party.<sup>116</sup> Rousseff would eventually be impeached and formally removed from office on August 31th, 2016.

<sup>114</sup> Frederic Puglie, "Luiz Inacio Lula Da Silva's Dramatic Downfall Rattles Brazil," The Washington Times (The Washington Times, March 13, 2016),

<https://www.washingtontimes.com/news/2016/mar/13/luiz-inacio-lula-da-silvas-dramatic-downfall-rattl/>.

<sup>115</sup> Reuters Staff, "Brazil Senator's Plea Bargain Implicates Rousseff, Lula -Media," Reuters (Thomson Reuters, March 3, 2016),

<https://www.reuters.com/article/brazil-corruption/brazil-senators-plea-bargain-implicates-rousseff-lula-media-idINL2N16B0Q5>.

<sup>116</sup> Frederic Puglie, "Luiz Inacio Lula Da Silva's Dramatic Downfall Rattles Brazil."

2018 was also a year of mass protests as then presidential candidate Jair Bolsonaro was running for office. Bolsonaro was known for his sexist and misogynistic comments, ranging from believing that women did not deserve to be paid as much as men because of their ability to become pregnant and thus lowering productivity,<sup>117</sup> to stating that a certain congresswoman was “not worth raping” due to her appearances.<sup>118</sup> Anti-Bolsonaro protests erupted in all Brazilian federal states, with male, female, and LGBT protestors chanting the famous slogan “Not Him.”<sup>119</sup> Additional fears among protestors included Bolsonaro’s fascist tendencies, with Bolsonaro himself claiming that he would not accept an election in which he did not win, citing that the Workers’ Party could work to defraud the electronic voting system.<sup>120</sup> With all of these scandals and protests in mind, it is obvious to see why the odds for each of the aforementioned variables are as such.

While very few variables under civic engagement displayed any kind of significance for the norte variable, it is the political participation and trust variables that show practical significance. For example, for those surveyed in 2018, the odds that they voted in the last presidential election given they were located in the northern region increased by 38% compared to those that were not located in the northern region, holding all other variables constant. The effects across political participation and trust variables can be explained in that poverty is primarily concentrated in Brazil’s northern states, per Image 2. As such, it is reasonable to state

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<sup>117</sup> Vanessa Lima, “Jair Bolsonaro Diz Que Mulher Deve Ganhar Salário Menor Porque Engravidar,” *Revista Crescer*, 2015, <https://revistacrescer.globo.com/Familia/Maes-e-Trabalho/noticia/2015/02/jair-bolsonaro-diz-que-mulher-deve-ganhar-salario-menor-porque-engravidar.html>.

<sup>118</sup> Associated Press, “Brazil Congressman Ordered to Pay for Offensive Remark,” AP NEWS (Associated Press, August 16, 2017), <https://apnews.com/article/67fd5827ddaa4aca9384c31cf0b62d4c>.

<sup>119</sup> Dom Phillips, “Huge Protests in Brazil as Far-Right Presidential Hopeful Returns Home,” *The Guardian* (Guardian News and Media, September 30, 2018), <https://www.theguardian.com/world/2018/sep/30/huge-protests-in-brazil-as-far-right-presidential-hopeful-jair-bolsonaro-returns-home>.

<sup>120</sup> Ibid.



that there are many recipients of *Bolsa Família* within the general northern regions of Brazil. Considering how *Bolsa Família* has significantly reduced poverty by 15% and extreme poverty by 25%, it can be inferred that it works well for those that receive the money.<sup>121</sup> Those that receive the money would like to see the program continue to exist, and thus would like to vote for the president that keeps the program alive or advances it, increasing the odds for voting in the last presidential election. The fact that poverty has reduced by this much under the program is a testament to its effects. The booklet and the help channels provide a sense of security for recipients, leading to increased trust with the government and overall bureaucratic structure of the program, which ultimately is reflected in the coefficients in **Table 6**.

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<sup>121</sup> Tiago Falcão Silva, “PPT” (Virtual Event, September 20, 2022).

## Interactions between CCTs and Gender

Because CCTs and gender are both intertwined in the conditionality clauses and motivate both *Progres-Oportunidades* and *Bolsa Familia*, the interaction between the two variables must be studied further. **Tables 7 through 12** display the regressions for both Mexico and Brazil on civic engagement, political participation, and trust. The interaction variable  $CCT \times Gender$  represents the interaction between the two variables.

Starting with **Table 7**, we can see that the interaction between CCTs and gender in Mexico is not significant at all among all of the civic engagement variables. **Table 8** displays similar results as well for Mexico, with the interaction variable between CCTs and gender displaying zero significance under political participation. Like the tables before it, **Table 9** displays zero significance in the interaction variables. If we only observe the CCT and gender variables, we also notice that the significance mostly holds across all of the regressions. Thus, we can conclude that for Mexico, the interaction between CCT and gender holds no significance at all.

However, it is important to note the shifting odds and significances for the CCT and gender variable by themselves. In **Table 7**, we see that for women that received a CCT (Gender = 0, which represents female), the odds that a woman attends a community meeting increases by 57%. This may be explained in that once women are given the money, they have more freedom to pursue other activities besides worrying about the household — in this case, it is attending community meetings. Parent meetings also follow a similar analysis. For women that received a CCT treatment, the odds that they are more likely to attend a political party meeting increases by 56%. Based on these two changes, we can see that CCTs cause women to engage civically much more.

Table 7: Mexico Regression with Gender Interaction, Civic Engagement

	Civic Engagement				
	Community	PartyMtg	Parent	RelOrgs	WomenGrp
CCT	1.565*** (0.099)	1.563*** (0.121)	1.181* (0.090)	0.950 (0.090)	1.760*** (0.122)
Gender	1.079 (0.070)	1.092 (0.087)	0.437*** (0.064)	0.816*** (0.059)	
Age	1.014*** (0.002)	1.005* (0.003)	0.986*** (0.002)	1.005*** (0.002)	1.013*** (0.004)
Income	0.987* (0.007)	0.994 (0.009)	1.000 (0.007)	1.005 (0.006)	0.996 (0.013)
Religion	0.903*** (0.035)	0.926* (0.043)	0.966 (0.032)	0.460*** (0.034)	0.799*** (0.072)
Number of Children	1.012 (0.024)	0.960 (0.030)	1.585*** (0.023)	1.009 (0.021)	1.043 (0.042)
Education	1.043*** (0.008)	1.018* (0.010)	1.046*** (0.008)	1.013* (0.007)	1.017 (0.016)
Party Trust	1.040* (0.022)	1.327*** (0.027)	1.048** (0.021)	1.053*** (0.019)	1.132*** (0.038)
Local Government Trust	1.000 (0.020)	0.976 (0.025)	1.005 (0.018)	1.006 (0.017)	1.044 (0.035)
Leg Trust	1.062*** (0.020)	0.985 (0.026)	1.026 (0.019)	0.984 (0.018)	0.917** (0.036)
Exec Trust	0.977 (0.020)	0.951** (0.025)	0.966* (0.018)	1.008 (0.017)	1.031 (0.036)
Urban/Rural	0.592*** (0.071)	0.812** (0.088)	0.893* (0.068)	0.734*** (0.064)	0.802* (0.125)
2012	0.698*** (0.113)	0.626*** (0.146)	1.248** (0.098)	1.138 (0.094)	1.115 (0.188)
2014	1.018 (0.102)	1.278* (0.126)	1.071 (0.094)	1.088 (0.089)	1.445** (0.179)
2016	1.018 (0.102)	1.278* (0.126)	1.071 (0.094)	1.088 (0.089)	1.445** (0.179)
2018	1.035 (0.101)	1.139 (0.126)	1.139 (0.094)	0.784*** (0.090)	0.849 (0.186)
norte	0.682*** (0.075)	1.149* (0.084)	1.182*** (0.064)	1.087 (0.060)	1.427*** (0.119)
CCT x Gender	0.848 (0.136)	1.095 (0.162)	1.005 (0.130)	1.194 (0.123)	
Observations	5,534	5,518	5,525	5,544	2,760

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

Table 8: Mexico Regression with Gender Interaction, Political Participation

	Political Participation				
	Protest	VotedLastYear	PolInterest	WatchNews	PolID
CCT	0.926 (0.190)	1.274** (0.120)	1.097 (0.087)	0.876 (0.090)	1.200 (0.120)
Gender	0.834 (0.120)	0.646*** (0.078)	1.164*** (0.057)	1.223*** (0.061)	1.180** (0.077)
Age	1.015*** (0.004)	1.070*** (0.003)	1.002 (0.002)	1.020*** (0.002)	1.025*** (0.002)
Income	0.991 (0.012)	1.005 (0.008)	1.037*** (0.006)	1.039*** (0.007)	1.045*** (0.008)
Religion	1.107* (0.057)	0.914** (0.037)	1.009 (0.029)	0.856*** (0.030)	0.950 (0.039)
Number of Children	1.002 (0.043)	1.124*** (0.028)	0.962* (0.021)	1.050** (0.022)	0.971 (0.028)
Education	1.077*** (0.014)	1.132*** (0.010)	1.110*** (0.007)	1.081*** (0.008)	1.026*** (0.009)
Party Trust	0.933 (0.133)	0.862* (0.084)	0.973 (0.062)	1.116* (0.066)	1.113 (0.086)
Local Government Trust	1.176*** (0.040)	1.123*** (0.027)	1.196*** (0.019)	0.961* (0.020)	1.194*** (0.024)
Leg Trust	0.988 (0.034)	0.970 (0.022)	1.019 (0.017)	1.016 (0.018)	1.001 (0.022)
Exec Trust	0.908*** (0.036)	1.011 (0.023)	1.016 (0.017)	1.043** (0.018)	0.982 (0.023)
Urban/Rural	0.930** (0.035)	1.026 (0.023)	1.060*** (0.017)	1.038** (0.018)	1.044* (0.022)
2012	0.598** (0.227)	1.020 (0.126)	0.814** (0.090)	0.554*** (0.097)	1.430*** (0.111)
2014	1.300 (0.183)	0.765** (0.118)	0.802** (0.087)	0.555*** (0.094)	0.529*** (0.116)
2016	1.300 (0.183)	0.765** (0.118)	0.803** (0.087)	0.555*** (0.094)	0.529*** (0.116)
2018	1.163 (0.186)	1.280** (0.123)	0.797*** (0.086)	0.625*** (0.093)	0.427*** (0.115)
norte	0.749** (0.130)	1.006 (0.080)	0.784*** (0.059)	1.160** (0.063)	1.586*** (0.075)
CCT x Gender	1.373 (0.251)	1.087 (0.163)	0.959 (0.119)	1.119 (0.125)	1.131 (0.160)
Constant	0.025*** (0.366)	0.071*** (0.246)			0.044*** (0.237)
Observations	5,541	5,527	5,551	5,527	5,507
Log Likelihood	-1,426.353	-2,743.624			-2,805.147
Akaike Inf. Crit.	2,890.706	5,525.248			5,648.294

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

Table 9: Mexico Regression with Gender Interaction, Trust

	Civic Engagement			
	LGovTrust	LegTrust	PolTrust	ExecTrust
CCT	1.208** (0.080)	1.174* (0.083)	1.222** (0.081)	1.362*** (0.081)
Gender	1.175*** (0.053)	0.994 (0.054)	1.086 (0.055)	1.104* (0.055)
Age	1.001 (0.002)	1.002 (0.002)	1.004** (0.002)	1.019*** (0.002)
Income	1.005 (0.006)	0.995 (0.006)	0.997 (0.006)	0.994 (0.006)
Religion	0.792*** (0.027)	0.843*** (0.027)	0.825*** (0.028)	0.819*** (0.028)
Number of Children	1.014 (0.019)	0.986 (0.020)	1.003 (0.019)	1.044** (0.019)
Education	0.964*** (0.006)	0.966*** (0.007)	0.974*** (0.007)	0.997 (0.007)
Urban/Rural	0.941 (0.058)	0.946 (0.060)	0.887** (0.060)	0.777*** (0.060)
2012	1.138 (0.084)	0.946 (0.087)	1.302*** (0.085)	1.127 (0.083)
2014	0.713*** (0.078)	0.571*** (0.080)	0.458*** (0.081)	0.219*** (0.081)
2016	0.713*** (0.078)	0.571*** (0.080)	0.458*** (0.081)	0.219*** (0.081)
2018	0.885 (0.079)	0.971 (0.081)	0.906 (0.080)	2.140*** (0.081)
norte	1.730*** (0.054)	1.497*** (0.055)	1.822*** (0.055)	1.954*** (0.055)
CCT x Gender	1.077 (0.111)	1.020 (0.115)	1.065 (0.114)	1.122 (0.114)
Observations	5,894	5,631	5,866	5,890
Note: *p<0.1; **p<0.05; ***p<0.01				

Brazil follows the same analysis structure. None of the interaction variables are significant, but the individual CCT and gender variables for civic engagement and political participation display surprising results. Starting with **Table 10**, for women that received a CCT, the odds of them attending a parent's association at school increases by 60% compared to the 46% odds that were displayed without any gender interactions. This also makes sense, as with more money, women do not have to worry about survival and putting food on the table as much as before, thus enabling them to participate more civically. In this case, it is being involved with their child and larger educational community. **Table 11** illustrates similar results politically, this time with protesting, political interest, and watching the news. For protesting, given a woman that received a CCT, the odds of them attending a protest increases by 39%. For political interest, given a woman that received a CCT, the odds of them being more likely to be interested in politics increases by 21%. Additionally, women that have received a CCT are more likely to watch the news by 22%. These odds are now significant compared to the noninteractive model, and for good reason. With more freedom due to the increase in income, women are now free to pursue other activities, such as politics. Because the money represents a paramount transformation in their agency, they will be more likely to pay attention to the security of the CCT program. The activities, in the context of the model, include protesting to keep the CCT program alive, maintaining interest in politics to see who wants to keep the program, and watching the news to observe any changes to the CCT program.

Table 10: Brazil Regression with Gender Interaction, Civic Engagement

	Civic Engagement				
	Community	PartyMtg	Parent	RelOrgs	WomenGrp
CCT	1.086 (0.110)	1.190 (0.123)	1.601*** (0.078)	0.978 (0.076)	1.114 (0.148)
Gender	1.311*** (0.078)	1.418*** (0.089)	0.621*** (0.061)	0.702*** (0.055)	
Age	1.015*** (0.002)	0.997 (0.003)	0.990*** (0.002)	1.005*** (0.002)	1.021*** (0.005)
Income	0.992 (0.009)	0.999 (0.010)	1.001 (0.007)	1.010 (0.007)	1.004 (0.018)
Religion	0.925* (0.047)	0.888** (0.054)	0.814*** (0.037)	0.442*** (0.037)	0.746** (0.116)
Number of Children	1.062* (0.031)	1.011 (0.035)	1.635*** (0.025)	0.978 (0.023)	1.081 (0.057)
Education	1.043*** (0.010)	1.015 (0.011)	1.027*** (0.008)	1.027*** (0.007)	1.002 (0.018)
Party Trust	1.074*** (0.024)	1.155*** (0.026)	0.987 (0.019)	1.023 (0.017)	1.050 (0.044)
Local Government Trust	1.047** (0.019)	1.078*** (0.022)	1.032** (0.015)	1.027* (0.014)	1.063* (0.036)
Leg Trust	1.022 (0.021)	1.001 (0.024)	0.995 (0.017)	0.995 (0.015)	1.019 (0.038)
Exec Trust	0.950*** (0.019)	0.978 (0.022)	1.012 (0.015)	1.027* (0.014)	1.005 (0.037)
Urban/Rural	0.461*** (0.085)	0.869 (0.103)	0.986 (0.075)	1.167** (0.068)	0.636*** (0.158)
2012	1.168 (0.145)	1.016 (0.182)	1.528*** (0.108)	1.209* (0.099)	1.167 (0.246)
2014	1.349** (0.120)	1.410** (0.146)	1.318*** (0.092)	1.634*** (0.083)	1.271 (0.206)
2016	1.836*** (0.115)	3.722*** (0.133)	2.239*** (0.090)	1.177* (0.083)	2.526*** (0.194)
2018	1.679*** (0.112)	3.437*** (0.129)	1.834*** (0.088)	1.118 (0.081)	
norte	1.076 (0.088)	1.188* (0.097)	1.026 (0.071)	1.393*** (0.064)	1.063 (0.163)
CCT x Gender	1.121 (0.147)	1.071 (0.161)	0.797** (0.115)	1.128 (0.108)	
Observations	6,500	6,489	6,496	6,496	2,669

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 11: Brazil Regression with Gender Interaction, Political Participation

	Political Participation				
	Protest	VotedLastYear	PolInterest	WatchNews	PolID
CCT	1.389** (0.158)	1.164 (0.112)	1.206** (0.081)	1.218** (0.083)	1.328*** (0.098)
Gender	1.374*** (0.107)	0.959 (0.083)	1.658*** (0.058)	1.344*** (0.061)	1.263*** (0.069)
Age	0.988*** (0.004)	1.064*** (0.003)	1.003 (0.002)	1.017*** (0.002)	1.011*** (0.002)
Income	1.013 (0.012)	1.020** (0.010)	1.045*** (0.007)	1.039*** (0.008)	1.014 (0.009)
Religion	1.043 (0.058)	0.922* (0.045)	0.952 (0.034)	0.919** (0.035)	0.925* (0.041)
Number of Children	0.895** (0.049)	1.244*** (0.037)	0.980 (0.024)	1.047* (0.025)	0.965 (0.029)
Education	1.158*** (0.015)	1.138*** (0.012)	1.107*** (0.008)	1.089*** (0.008)	1.018** (0.009)
Party Trust	1.077 (0.150)	0.828* (0.104)	0.782*** (0.073)	1.337*** (0.074)	1.003 (0.087)
Local Government Trust	1.114*** (0.037)	0.990 (0.026)	1.145*** (0.019)	0.950*** (0.019)	1.169*** (0.021)
Leg Trust	0.991 (0.029)	1.004 (0.021)	1.058*** (0.015)	0.964** (0.016)	0.995 (0.018)
Exec Trust	0.929** (0.032)	0.981 (0.022)	0.989 (0.016)	0.994 (0.017)	0.992 (0.019)
Urban/Rural	0.947* (0.028)	1.069*** (0.020)	1.062*** (0.015)	1.059*** (0.015)	1.081*** (0.017)
2012	0.515*** (0.247)	1.141 (0.168)	0.770** (0.103)	0.501*** (0.107)	0.920 (0.122)
2014	1.121 (0.182)	0.507*** (0.127)	0.829** (0.086)	1.526*** (0.093)	0.735*** (0.103)
2016	2.117*** (0.169)	0.604*** (0.127)	1.124 (0.085)	0.992 (0.090)	0.681*** (0.105)
2018	1.562*** (0.170)	0.475*** (0.123)	1.142 (0.097)	1.297*** (0.089)	0.687*** (0.100)
norte	1.135 (0.127)	1.388*** (0.105)	1.196*** (0.069)	1.213*** (0.074)	0.993 (0.082)
CCT x Gender	0.678* (0.222)	0.832 (0.155)	0.752** (0.114)	0.828 (0.118)	1.056 (0.132)
Constant	0.025*** (0.338)	0.186*** (0.258)			0.104*** (0.208)
Observations	6,513	6,518	5,817	6,507	6,465
Log Likelihood	-1,737.281	-2,671.347			-3,547.547
Akaike Inf. Crit.	3,512.561	5,380.694			7,133.093

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01



Table 12: Brazil Regression with Gender Interaction, Trust

	Civic Engagement			
	LGovTrust	LegTrust	PolTrust	ExecTrust
CCT	1.181** (0.071)	1.145* (0.072)	1.105 (0.073)	1.290*** (0.073)
Gender	1.109** (0.050)	0.958 (0.051)	0.988 (0.053)	1.274*** (0.051)
Age	1.004** (0.002)	0.998 (0.002)	0.997* (0.002)	1.011*** (0.002)
Income	1.007 (0.006)	0.981*** (0.006)	0.987** (0.007)	0.992 (0.006)
Religion	0.912*** (0.030)	0.935** (0.030)	0.930** (0.031)	0.870*** (0.030)
Number of Children	0.992 (0.022)	1.008 (0.022)	0.998 (0.022)	1.019 (0.022)
Education	0.977*** (0.007)	0.954*** (0.007)	0.969*** (0.007)	0.963*** (0.007)
Urban/Rural	0.693*** (0.065)	0.827*** (0.065)	0.788*** (0.067)	0.759*** (0.065)
2012	0.684*** (0.092)	1.057 (0.093)	0.952 (0.095)	0.773*** (0.093)
2014	0.523*** (0.076)	0.589*** (0.077)	0.497*** (0.079)	0.295*** (0.078)
2016	0.552*** (0.072)	0.541*** (0.073)	0.361*** (0.075)	0.090*** (0.078)
2018	0.673*** (0.075)	0.981 (0.075)	0.532*** (0.077)	0.606*** (0.076)
norte	0.924 (0.061)	1.375*** (0.062)	1.395*** (0.062)	1.174*** (0.061)
CCT x Gender	0.864 (0.102)	1.002 (0.102)	1.048 (0.104)	0.929 (0.103)
Observations	6,671	6,598	6,664	6,684
Note: *p<0.1; **p<0.05; ***p<0.01				

## Chapter V: Conclusion

### Causal Relationship Establishment

Income inequality is currently in a terrible situation and will continue to worsen in the future. In 2022, 10% of the world's population owns nearly 76% of global wealth and takes in 52% of global income, whereas 50% of the world's population only owns 2% of total global wealth.<sup>122</sup> The majority of those living in destitution primarily reside in the Global South, where high-paying job opportunities lay bare and social stratification remains a distant thought. Because of these concerns, governments in the 1990s increasingly ran natural experiments on means-tested welfare programs in order to best determine how to lift those in poverty or extreme poverty. With that experiment came two famous CCT programs, *Progres-a-Oportunidades* and *Bolsa Familia*, both of which included conditionalities that prioritized women and child welfare.

This thesis aimed to establish causal linkages between CCTs and indicators for civic engagement, political participation, and trust for Mexico and Brazil. The analysis that I conduct in this thesis, based on a fixed effects, multilevel ordinal logistic regression, supports the hypothesis that I initially stated. CCTs, through the conditionalities embedded in the program, create opportunities for recipients to engage in civic and political activities. Additionally, I find that CCTs increase government trust across the board, ranging from local to federal institutions. When living in poverty, survival is often the first instinct that someone has. Worrying about putting food on the table and ensuring a livable quality of life takes resources away that could be applied elsewhere, such as society and politics.

For Mexico, significant results were found for attendance in community meetings, parent associations at school, party meetings, and women's groups. Significant results were also found

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<sup>122</sup> Andrew Stanley, "Global Inequalities," IMF, March 1, 2022, <https://www.imf.org/en/Publications/fandd/issues/2022/03/Global-inequalities-Stanley>.

for political participation, with voter turnout and political party identification odds increasing for CCT recipients compared to those that are not recipients. While the interaction variable between CCTs and gender had little to no effect, it still bolstered the two variables individually. Trust was also significant across the board, with CCT recipients having higher odds of being more likely to trust government institutions and political parties. For Brazil, similar results were found, with attendance in community meetings, parent associations at school, and political party meetings. Political participation variables also displayed significance, with news watching and political party identification odds increasing for CCT recipients. Additionally, trust showed similar results to the Mexico regressions, with CCT recipients being more likely to trust government institutions and political parties compared to nonrecipients. When CCTs were interacted with gender, the odds for attendance at political party meetings, protesting, being interested in politics, news watching, political party identification, and trust increased on average, though the difference in effects were mostly insignificant. All of these results may be explained through an increase in opportunities. With the effects of poverty lessened through these programs, recipients have more time to pursue other activities such as engaging civically or politically. When these programs run well and provide help to those in need, it makes sense that recipients would trust those who make that happen.

### **The Role of Institutional Design**

I daresay that *Progres-a-Oportunidades* and *Bolsa Familia* would not have their enduring successes without their meticulous institutional designs. Transfer corruption is minimized by reducing the number of hands that the cash has to go through, lowering the chances that a middleman may steal or squander the allocated funds. Along with that, electoral corruption is

reduced by preventing elected officials from withholding funds or engaging in other clientelistic practices. The creation of the CCT programs saw administrative agencies reshaped or merged so that administrative bloat would not disrupt fund distribution. In short, all of these features come from a strict yoke of the central administration. For example, in the case of *Progres-a-Oportunidades*, central administration keeps operating costs low and reduces the number of decisionmakers in the process, limiting corruption and ensuring that funds go directly to the hands of those that need it.<sup>123</sup> For *Bolsa Familia*, the “fire alarm” system to root out corrupt practices, federal audits, direct payment to beneficiaries through state-owned banks, and bureaucratic avenues for assistance all come from a central administration that helps its beneficiaries.<sup>124</sup> Without these systems in place, it would be likely that CCT programs would not last long.

### Threats to the Program

Unfortunately, things did not pan out for *Progres-a-Oportunidades*. In 2019, current Mexican President Andrés Manuel López Obrador abolished the program in favor of unconditional programs. In *Progres-a-Oportunidades*’ stead came two new programs. The first is the Benito Juárez Scholarship program, in which public education scholarships are provided for those pursuing secondary education opportunities.<sup>125</sup> The second was to replace Mexico’s benefit-tested social pension program with a new universal elder pension with double the money involved.<sup>126</sup> Specifically, the scholarship program is not means-tested, meaning that families no

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<sup>123</sup> Santiago Levy, *Progress against Poverty: Sustaining Mexico's Progres-a-Oportunidades Program*, p. 101.

<sup>124</sup> Natasha Borges Sugiyama and Wendy Hunter, “Whither Clientelism? Good Governance and Brazil's Bolsa Família Program,” pp. 57-58.

<sup>125</sup> Gregory S. Schober, “Conditional vs. Unconditional Antipoverty Programs in Mexico,” Baker Institute, January 27, 2020, <https://www.bakerinstitute.org/research/conditional-vs-unconditional-antipoverty-programs-mexico>.

<sup>126</sup> Lee Baker, “The Demise of Mexico's Prospera Programme: A Tragedy Foretold,” Development Pathways, July 22, 2019, <https://www.developmentpathways.co.uk/blog/the-demise-of-mexicos-prospera-programme-a-tragedy-foretold/>.

longer have to prove that they live in poverty in order to be eligible for government funds. Although school enrollment is a requirement, strict attendance rate policies have been abandoned.<sup>127</sup>

Political economy theory explains the abolishment of *Progres-Oportunidades*. Poverty-targeted social programs are typically financed by taxes. Because the majority do not live in poverty in Mexico, it remained an unpopular plan because many were not entitled to the program that they funded.<sup>128</sup> Previous literature has found that this type of redistributive taxation provides inconclusive results on inequality based on the relative position that the middle class is located between low-income and high-income groups.<sup>129</sup> Because impoverished groups in Mexico are smaller in size than the rest of the population, there were not enough people to oppose the abolishment.

I am skeptical of the abolishment. Leticia Animas Vargas, national coordinator of *Progres-Oportunidades*, cited the program as a “system of control”, where recipients felt obliged to attend party meetings or vote for the ruling party. She also cited corruption within the system, asserting that distributed funds were lower than expected and that bribery was common among female recipients.<sup>130</sup> My analysis runs contrary to her claims. Government and political trust across the board for Mexico showed positive odds when people received CCTs, and civic engagement variables showed increased odds as well. It is conventional wisdom to state that people vote for parties and candidates that best represent their current situation. The cash transfer program provided countermeasures against clientelism and minimized corruption through its

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<sup>127</sup> Gregory S. Schober, “Conditional vs. Unconditional Antipoverty Programs in Mexico.”

<sup>128</sup> Lee Baker, “The Demise of Mexico's Prospera Programme: A Tragedy Foretold.”

<sup>129</sup> Daron Acemoglu et al., “Democracy, Redistribution and Inequality,” *National Bureau of Economic Research*, no. 19746 (December 2013): pp. 1-85, <https://doi.org/10.3386/w19746>, p. 42.

<sup>130</sup> Lee Baker, “The Demise of Mexico's Prospera Programme: A Tragedy Foretold.”

institutional design. Additionally, the statement that recipients “felt obliged” to attend party meetings ignores the previously stated conventional wisdom.

There are valid criticisms of the program. Recipient selection bred jealousy among nonrecipients, undermining social cohesion in the process. Targeting errors meant that some of those living in extreme poverty were entirely left out of the scheme, only keeping them in destitution.<sup>131</sup> Unlike *Bolsa Família*, noncompliance meant an immediate stoppage in receiving additional funds without taking into account household circumstances. But, if these are the main concerns, then reform of the system can be established so as to correct any current mistakes. Large-scale means-tested welfare programs take careful planning, as I have shown through the meticulousness of *Progres-a-Oportunidades*’ institutional design. Throwing the entire system out, when it has been empirically proven to reduce poverty across the board and create civic and political skills for recipients, is an overcorrection to an issue that can be solved.

### **Future Research**

Future research should expand the panel data years so as to capture more data points, creating a better picture in the process. Additionally, further research should be conducted on whether specific messaging by candidates about CCT programs affect turnout and reelection probabilities. While LAPOP provides a variable for whether someone voted in the last presidential election, it does not go into specifics on whether a presidential candidate’s platform included their position on their respective CCT programs. Because both CCT programs provide safeguards against clientelism and vote-buying, it would be interesting to observe whether signals expressed by candidates indicate clientelistic-like practices or not. Finally, additional research should be done on the effects that CCT programs have on income inequality. Because

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<sup>131</sup> Ibid.

the number of people lifted out of poverty by these programs is significant, it would be interesting to see whether it combats rising inequality. This research would be split into two parts. The first part would use a regression discontinuity or differences-in-differences design to see whether the transfer value has made a significant difference, and the second part would be a larger macroeconomic analysis on the CCT program and Gini coefficient changes.

A population that is stuck in poverty is a population with a lack of opportunities. With the implementation of CCTs, we could potentially observe once-impooverished populations thrive under the new opportunities presented to them. Through strong institutional design of CCT programs and relevant conditionalities attached to them, it is possible to create societies that are more equitable than their current state.

### Appendix A: List of Variables Used

Variable	Title	Question Text	Categories	Average, Mexico, 2010-2018	Average, Brazil, 2010-2018
cp8	Attendance at meetings for community improvements	Meetings of a community improvement committee or association? Do you attend them...	1 Very Likely 2 Likely 3 Somewhat Likely 4 Unlikely	3.59	3.734
cp13	Attendance at meetings of political parties	Meetings of a political party or political organization? Do you attend them...	1 Very Likely 2 Likely 3 Somewhat Likely 4 Unlikely	3.782	3.797
cp7	Attendance at meetings of parent association	Meetings of a parents association at school? Do you attend them...	1 Very Likely 2 Likely 3 Somewhat Likely 4 Unlikely	3.27	3.386
cp6	Attendance at meetings of religious organization	Meetings of any religious organization? Do you attend them...	1 Very Likely 2 Likely 3 Somewhat Likely 4 Unlikely	2.731	2.488
cp20	Attendance at meetings of women's	Meetings of associations or groups of	1 Very Likely 2 Likely	3.709	3.786



	group	women or home makers. Do you attend them...	3 Somewhat Likely 4 Unlikely		
b21a	Trust in executive	To what extent do you trust the President?	1 Not at all 2 3 4 5 6 7 A lot	3.754	4.066
b32	Trust in local government	To what extent do you trust your local or municipal government?	1 Not at all 2 3 4 5 6 7 A lot	4.097	3.504
b13	Trust in the national legislature	To what extent do you trust your national legislature?	1 Not at all 2 3 4 5 6	3.967	3.236

			7 A lot		
b21	Trust in political parties	To what extent do you trust the political parties?	1 Not at all 2 3 4 5 6 7 A lot	2.845	2.569
pol1	Political interest	How much interest do you have in politics?	1 A lot 2 Some 3 Little 4 None	2.864	3.008
gi0	Frequency of paying attention to the news	About how often do you pay attention to the news, whether on TV, radio, newspapers, or the Internet?	1 Daily 2 Likely 3 Somewhat likely 4 Rarely 5 Never	1.821	1.65
prot3	Participated in a protest	Have you participated in a protest?	1 Yes 0 No	0.07142	0.08273
vb2	Voted in last presidential election	Did you vote in the last presidential election?	1 Yes 0 No	0.7132	0.8119
vb10	Identifies with a political	Do you currently identify with	1 Yes 0 No	0.2447	0.2598

	party	a political party?			
q1	Gender	No question prompt	1 Male 0 Female	0.4972	0.49333
q2	Age	No question prompt	Continuous Variable	40.51	38.84
q10	Monthly income	What is your monthly income?	Ordinal variable based on level, income brackets different for each country. Ranges from 0 to 10, with 0 being no income and 10 being the top income bracket	6.815	6.96
q5b	Importance of religion	Please, could you tell me how important is religion in your life?	1 Very important 2 Rather important 3 Not very important 4 Not at all important	1.766	1.406
q12	Number of children	Do you have children? How many children do you have?	Continuous variable	2.163	1.008
ed	Years of education	What was the last year of education that you completed or passed?	Continuous variable for number of years educated	9.27	8.55

ur	Urban/rural	No question prompt	1 Urban 0 Rural	0.7871	0.8651
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## Appendix B: Statistical Tests for Mexico Models

### Civic Engagement

	Community	Parent	Party Mtg	RelOrgs	WomenGrp
cct1	0.36 *	0.49 *	0.17 *	0.04	0.57 *
q1	[ 0.22; 0.50]	[ 0.33; 0.66]	[ 0.03; 0.30]	[-0.09; 0.16]	[ 0.33; 0.81]
q2	0.03	0.11	-0.83 *	-0.16 *	
q10	[-0.09; 0.15]	[-0.03; 0.26]	[-0.94; -0.72]	[-0.27; -0.06]	
q5b	0.01 *	0.00	-0.01 *	0.01 *	0.01 *
q12a	[ 0.01; 0.02]	[-0.00; 0.01]	[-0.02; -0.01]	[ 0.00; 0.01]	[ 0.00; 0.02]
ed	-0.01	-0.01	-0.00	0.01	-0.00
b21	[-0.03; 0.00]	[-0.02; 0.01]	[-0.01; 0.01]	[-0.01; 0.02]	[-0.03; 0.02]
b32	-0.10 *	-0.08	-0.03	-0.78 *	-0.22 *
b13	[-0.17; -0.03]	[-0.16; 0.01]	[-0.10; 0.03]	[-0.84; -0.71]	[-0.36; -0.08]
b21a	0.01	-0.04	0.46 *	0.01	0.04
ur	[-0.03; 0.06]	[-0.10; 0.02]	[ 0.42; 0.51]	[-0.03; 0.05]	[-0.04; 0.12]
factor(year)2012	0.04 *	0.02	0.05 *	0.01	0.02
factor(year)2014	[ 0.03; 0.06]	[-0.00; 0.04]	[ 0.03; 0.06]	[-0.00; 0.03]	[-0.01; 0.05]
factor(year)2016	0.04	0.28 *	0.05 *	0.05 *	0.12 *
factor(year)2018	[-0.00; 0.08]	[ 0.23; 0.34]	[ 0.01; 0.09]	[ 0.01; 0.09]	[ 0.05; 0.20]
norte	0.00	-0.02	0.00	0.01	0.04
Unlikely Somewhat Likely	[-0.04; 0.04]	[-0.07; 0.02]	[-0.03; 0.04]	[-0.03; 0.04]	[-0.03; 0.11]
Somewhat Likely Likely	0.06 *	-0.02	0.03	-0.02	-0.09 *
Likely Very Likely	[ 0.02; 0.10]	[-0.07; 0.03]	[-0.01; 0.06]	[-0.05; 0.02]	[-0.16; -0.02]
AIC	-0.02	-0.05 *	-0.03	0.01	0.03
BIC	[-0.06; 0.02]	[-0.10; -0.00]	[-0.07; 0.00]	[-0.03; 0.04]	[-0.04; 0.10]
Log Likelihood	-0.52 *	-0.21 *	-0.11	-0.31 *	-0.22
Deviance	[-0.66; -0.38]	[-0.38; -0.04]	[-0.25; 0.02]	[-0.43; -0.19]	[-0.47; 0.02]
Num. obs.	-0.36 *	-0.47 *	0.22 *	0.13	0.11
	[-0.58; -0.14]	[-0.75; -0.18]	[ 0.03; 0.41]	[-0.05; 0.31]	[-0.26; 0.48]
	0.02	0.25	0.07	0.09	0.37 *
	[-0.18; 0.22]	[-0.00; 0.49]	[-0.12; 0.25]	[-0.09; 0.26]	[ 0.02; 0.72]
	0.02	0.25	0.07	0.09	0.37 *
	[-0.18; 0.22]	[-0.00; 0.49]	[-0.12; 0.25]	[-0.09; 0.26]	[ 0.02; 0.72]
	0.03	0.13	0.13	-0.24 *	-0.16
	[-0.16; 0.23]	[-0.12; 0.38]	[-0.05; 0.31]	[-0.42; -0.07]	[-0.53; 0.20]
	-0.38 *	0.14	0.17 *	0.08	0.36 *
	[-0.53; -0.24]	[-0.03; 0.30]	[ 0.04; 0.29]	[-0.03; 0.20]	[ 0.12; 0.59]
	1.44 *	2.34 *	0.39 *	-1.40 *	2.52 *
	[ 1.03; 1.85]	[ 1.84; 2.85]	[ 0.02; 0.77]	[-1.76; -1.04]	[ 1.78; 3.26]
	2.53 *	3.77 *	1.08 *	-0.86 *	3.02 *
	[ 2.12; 2.95]	[ 3.26; 4.29]	[ 0.71; 1.46]	[-1.22; -0.51]	[ 2.28; 3.77]
	4.50 *	5.20 *	3.47 *	-0.01	4.15 *
	[ 4.05; 4.95]	[ 4.65; 5.75]	[ 3.07; 3.86]	[-0.37; 0.35]	[ 3.39; 4.91]
AIC	9307.95	6359.01	11236.43	13346.95	3372.20
BIC	9440.32	6491.32	11368.77	13479.36	3484.73
Log Likelihood	-4633.97	-3159.50	-5598.21	-6653.48	-1667.10
Deviance	9267.95	6319.01	11196.43	13306.95	3334.20
Num. obs.	5534	5518	5525	5544	2760

\* Null hypothesis value outside the confidence interval.

## Trust

	LGovTrust	LegTrust	PolTrust	ExecTrust
cct1	0.23 *	0.17 *	0.23 *	0.36 *
	[ 0.11; 0.34]	[ 0.05; 0.29]	[ 0.11; 0.35]	[ 0.25; 0.48]
q1	0.18 *	-0.00	0.10 *	0.12 *
	[ 0.09; 0.27]	[-0.10; 0.09]	[ 0.00; 0.19]	[ 0.03; 0.22]
q2	0.00	0.00	0.00 *	0.02 *
	[-0.00; 0.00]	[-0.00; 0.01]	[ 0.00; 0.01]	[ 0.02; 0.02]
q10	0.01	-0.00	-0.00	-0.01
	[-0.01; 0.02]	[-0.02; 0.01]	[-0.02; 0.01]	[-0.02; 0.01]
q5b	-0.23 *	-0.17 *	-0.19 *	-0.20 *
	[-0.28; -0.18]	[-0.22; -0.12]	[-0.25; -0.14]	[-0.25; -0.15]
q12a	0.01	-0.01	0.00	0.04 *
	[-0.02; 0.05]	[-0.05; 0.02]	[-0.04; 0.04]	[ 0.00; 0.08]
ed	-0.04 *	-0.03 *	-0.03 *	-0.00
	[-0.05; -0.02]	[-0.05; -0.02]	[-0.04; -0.01]	[-0.02; 0.01]
ur	-0.06	-0.06	-0.12 *	-0.25 *
	[-0.18; 0.05]	[-0.17; 0.06]	[-0.24; -0.00]	[-0.37; -0.14]
factor(year)2012	0.13	-0.06	0.26 *	0.12
	[-0.03; 0.29]	[-0.23; 0.11]	[ 0.10; 0.43]	[-0.04; 0.28]
factor(year)2014	-0.34 *	-0.56 *	-0.78 *	-1.52 *
	[-0.49; -0.18]	[-0.72; -0.40]	[-0.94; -0.62]	[-1.68; -1.36]
factor(year)2016	-0.34 *	-0.56 *	-0.78 *	-1.52 *
	[-0.49; -0.18]	[-0.72; -0.40]	[-0.94; -0.62]	[-1.68; -1.36]
factor(year)2018	-0.12	-0.03	-0.10	0.76 *
	[-0.28; 0.03]	[-0.19; 0.13]	[-0.26; 0.06]	[ 0.60; 0.92]
norte	0.55 *	0.40 *	0.60 *	0.67 *
	[ 0.44; 0.65]	[ 0.30; 0.51]	[ 0.49; 0.71]	[ 0.56; 0.78]
Not at all 2	-2.60 *	-2.73 *	-1.28 *	-1.24 *
	[-2.89; -2.31]	[-3.03; -2.44]	[-1.57; -0.99]	[-1.53; -0.95]
2 3	-1.89 *	-2.04 *	-0.61 *	-0.71 *
	[-2.18; -1.61]	[-2.33; -1.74]	[-0.90; -0.32]	[-1.00; -0.42]
3 4	-1.18 *	-1.32 *	0.10	-0.16
	[-1.47; -0.90]	[-1.61; -1.02]	[-0.19; 0.39]	[-0.45; 0.13]
4 5	-0.37 *	-0.43 *	0.88 *	0.46 *
	[-0.66; -0.09]	[-0.72; -0.14]	[ 0.59; 1.17]	[ 0.17; 0.74]
5 6	0.59 *	0.62 *	1.90 *	1.25 *
	[ 0.30; 0.87]	[ 0.33; 0.91]	[ 1.60; 2.20]	[ 0.97; 1.54]
6 A Lot	1.56 *	1.66 *	2.93 *	2.14 *
	[ 1.27; 1.85]	[ 1.36; 1.96]	[ 2.62; 3.25]	[ 1.84; 2.43]
AIC	22256.99	21072.13	19847.59	20281.83
BIC	22383.94	21198.21	19974.45	20408.77
Log Likelihood	-11109.49	-10517.06	-9904.79	-10121.92
Deviance	22218.99	21034.13	19809.59	20243.83
Num. obs.	5894	5631	5866	5890

\* Null hypothesis value outside the confidence interval.

## Political Participation

	Protest	VotedLastYear	PolInterest	WatchNews	PolID
(Intercept)	-3.72 *	-2.66 *			-3.14 *
	[-4.43; -3.00]	[-3.14; -2.18]			[-3.61; -2.68]
cct1	0.09	0.29 *	0.07	-0.08	0.25 *
	[-0.17; 0.35]	[ 0.12; 0.45]	[-0.05; 0.19]	[-0.21; 0.05]	[ 0.09; 0.41]
q1	-0.11	-0.42 *	0.14 *	0.23 *	0.19 *
	[-0.32; 0.10]	[-0.55; -0.28]	[ 0.04; 0.24]	[ 0.12; 0.33]	[ 0.06; 0.33]
q2	0.02 *	0.07 *	0.00	0.02 *	0.02 *
	[ 0.01; 0.02]	[ 0.06; 0.07]	[-0.00; 0.01]	[ 0.02; 0.02]	[ 0.02; 0.03]
q10	-0.01	0.00	0.04 *	0.04 *	0.04 *
	[-0.03; 0.01]	[-0.01; 0.02]	[ 0.02; 0.05]	[ 0.03; 0.05]	[ 0.03; 0.06]
q5b	0.10	-0.09 *	0.01	-0.16 *	-0.05
	[-0.01; 0.22]	[-0.16; -0.02]	[-0.05; 0.06]	[-0.21; -0.10]	[-0.13; 0.03]
q12a	0.00	0.12 *	-0.04	0.05 *	-0.03
	[-0.08; 0.08]	[ 0.06; 0.17]	[-0.08; 0.00]	[ 0.00; 0.09]	[-0.09; 0.03]
ed	0.07 *	0.12 *	0.10 *	0.08 *	0.03 *
	[ 0.05; 0.10]	[ 0.10; 0.14]	[ 0.09; 0.12]	[ 0.06; 0.09]	[ 0.01; 0.04]
ur	-0.07	-0.15	-0.03	0.11	0.11
	[-0.33; 0.19]	[-0.31; 0.02]	[-0.15; 0.10]	[-0.02; 0.24]	[-0.06; 0.28]
b21	0.16 *	0.12 *	0.18 *	-0.04	0.18 *
	[ 0.09; 0.24]	[ 0.06; 0.17]	[ 0.14; 0.22]	[-0.08; 0.00]	[ 0.13; 0.22]
b32	-0.01	-0.03	0.02	0.02	0.00
	[-0.08; 0.06]	[-0.07; 0.01]	[-0.01; 0.05]	[-0.02; 0.05]	[-0.04; 0.04]
b13	-0.10 *	0.01	0.02	0.04 *	-0.02
	[-0.17; -0.03]	[-0.03; 0.06]	[-0.02; 0.05]	[ 0.01; 0.08]	[-0.06; 0.03]
b21a	-0.07 *	0.03	0.06 *	0.04 *	0.04
	[-0.14; -0.00]	[-0.02; 0.07]	[ 0.03; 0.09]	[ 0.00; 0.07]	[-0.00; 0.09]
factor(year)2012	-0.51 *	0.02	-0.21 *	-0.59 *	0.36 *
	[-0.96; -0.07]	[-0.23; 0.27]	[-0.38; -0.03]	[-0.78; -0.40]	[ 0.14; 0.58]
factor(year)2014	0.27	-0.27 *	-0.22 *	-0.59 *	-0.64 *
	[-0.09; 0.62]	[-0.50; -0.04]	[-0.39; -0.05]	[-0.77; -0.41]	[-0.86; -0.41]
factor(year)2016	0.27	-0.27 *	-0.22 *	-0.59 *	-0.64 *
	[-0.09; 0.62]	[-0.50; -0.04]	[-0.39; -0.05]	[-0.77; -0.41]	[-0.86; -0.41]
factor(year)2018	0.15	0.25 *	-0.23 *	-0.47 *	-0.85 *
	[-0.21; 0.52]	[ 0.01; 0.49]	[-0.39; -0.06]	[-0.65; -0.29]	[-1.08; -0.62]
norte	-0.29 *	0.01	-0.24 *	0.15 *	0.46 *
	[-0.54; -0.03]	[-0.15; 0.16]	[-0.36; -0.13]	[ 0.02; 0.27]	[ 0.32; 0.61]
Never A Little			0.99 *		
A Little Some			[ 0.64; 1.33]		
Some A Lot			2.59 *		
			[ 2.24; 2.94]		
Never Rarely			4.31 *		
			[ 3.94; 4.67]		
Rarely Somewhat Likely				-1.91 *	
				[-2.30; -1.53]	
Somewhat Likely Likely				-0.67 *	
				[-1.04; -0.31]	
Likely Daily				-0.29	
				[-0.66; 0.08]	
				1.58 *	
				[ 1.21; 1.95]	
AIC	2890.31	5523.51	13927.98	12240.19	5646.89
BIC	3009.47	5642.63	14060.41	12379.15	5765.93
Log Likelihood	-1427.15	-2743.76	-6943.99	-6099.09	-2805.44
Deviance	2854.31	5487.51	13887.98	12198.19	5610.89
Num. obs.	5541	5527	5551	5527	5507

\* Null hypothesis value outside the confidence interval.

## Interaction - Civic Engagement

	Community	PartyMtg	Parent	RelOrgs	WomenGrp
cct1	0.45 *	0.45 *	0.17	-0.05	0.57 *
	[ 0.25; 0.64]	[ 0.21; 0.68]	[-0.01; 0.34]	[-0.23; 0.12]	[ 0.33; 0.81]
q1	0.08	0.09	-0.83 *	-0.20 *	
	[-0.06; 0.21]	[-0.08; 0.26]	[-0.95; -0.70]	[-0.32; -0.09]	
q2	0.01 *	0.00	-0.01 *	0.01 *	0.01 *
	[ 0.01; 0.02]	[-0.00; 0.01]	[-0.02; -0.01]	[ 0.00; 0.01]	[ 0.00; 0.02]
q10	-0.01	-0.01	-0.00	0.01	-0.00
	[-0.03; 0.00]	[-0.02; 0.01]	[-0.01; 0.01]	[-0.01; 0.02]	[-0.03; 0.02]
q5b	-0.10 *	-0.08	-0.03	-0.78 *	-0.22 *
	[-0.17; -0.03]	[-0.16; 0.01]	[-0.10; 0.03]	[-0.84; -0.71]	[-0.36; -0.08]
q12a	0.01	-0.04	0.46 *	0.01	0.04
	[-0.04; 0.06]	[-0.10; 0.02]	[ 0.42; 0.51]	[-0.03; 0.05]	[-0.04; 0.12]
ed	0.04 *	0.02	0.05 *	0.01	0.02
	[ 0.03; 0.06]	[-0.00; 0.04]	[ 0.03; 0.06]	[-0.00; 0.03]	[-0.01; 0.05]
b21	0.04	0.28 *	0.05 *	0.05 *	0.12 *
	[-0.00; 0.08]	[ 0.23; 0.34]	[ 0.01; 0.09]	[ 0.01; 0.09]	[ 0.05; 0.20]
b32	0.00	-0.02	0.00	0.01	0.04
	[-0.04; 0.04]	[-0.07; 0.02]	[-0.03; 0.04]	[-0.03; 0.04]	[-0.03; 0.11]
b13	0.06 *	-0.01	0.03	-0.02	-0.09 *
	[ 0.02; 0.10]	[-0.06; 0.04]	[-0.01; 0.06]	[-0.05; 0.02]	[-0.16; -0.02]
b21a	-0.02	-0.05 *	-0.03	0.01	0.03
	[-0.06; 0.02]	[-0.10; -0.00]	[-0.07; 0.00]	[-0.03; 0.04]	[-0.04; 0.10]
ur	-0.52 *	-0.21 *	-0.11	-0.31 *	-0.22
	[-0.66; -0.39]	[-0.38; -0.04]	[-0.25; 0.02]	[-0.43; -0.19]	[-0.47; 0.02]
factor(year)2012	-0.36 *	-0.47 *	0.22 *	0.13	0.11
	[-0.58; -0.14]	[-0.75; -0.18]	[ 0.03; 0.41]	[-0.05; 0.31]	[-0.26; 0.48]
factor(year)2014	0.02	0.25	0.07	0.08	0.37 *
	[-0.18; 0.22]	[-0.00; 0.49]	[-0.12; 0.25]	[-0.09; 0.26]	[ 0.02; 0.72]
factor(year)2016	0.02	0.25	0.07	0.08	0.37 *
	[-0.18; 0.22]	[-0.00; 0.49]	[-0.12; 0.25]	[-0.09; 0.26]	[ 0.02; 0.72]
factor(year)2018	0.03	0.13	0.13	-0.24 *	-0.16
	[-0.16; 0.23]	[-0.12; 0.38]	[-0.05; 0.31]	[-0.42; -0.07]	[-0.53; 0.20]
norte	-0.38 *	0.14	0.17 *	0.08	0.36 *
	[-0.53; -0.24]	[-0.03; 0.30]	[ 0.04; 0.29]	[-0.03; 0.20]	[ 0.12; 0.59]
cct1:q1	-0.16	0.09	0.00	0.18	
	[-0.43; 0.10]	[-0.23; 0.41]	[-0.25; 0.26]	[-0.06; 0.42]	
Unlikely Somewhat Likely	1.46 *	2.33 *	0.39 *	-1.42 *	2.52 *
	[ 1.05; 1.87]	[ 1.82; 2.83]	[ 0.02; 0.77]	[-1.78; -1.06]	[ 1.78; 3.26]
Somewhat Likely Likely	2.56 *	3.76 *	1.08 *	-0.89 *	3.02 *
	[ 2.14; 2.97]	[ 3.24; 4.27]	[ 0.70; 1.46]	[-1.24; -0.53]	[ 2.28; 3.77]
Likely Very Likely	4.52 *	5.19 *	3.47 *	-0.03	4.15 *
	[ 4.07; 4.97]	[ 4.63; 5.74]	[ 3.07; 3.86]	[-0.39; 0.33]	[ 3.39; 4.91]
AIC	9308.48	6360.70	11238.43	13346.86	3372.20
BIC	9447.47	6499.63	11377.39	13485.89	3484.73
Log Likelihood	-4633.24	-3159.35	-5598.21	-6652.43	-1667.10
Deviance	9266.48	6318.70	11196.43	13304.86	3334.20
Num. obs.	5534	5518	5525	5544	2760

\* Null hypothesis value outside the confidence interval.



## Interaction - Political Participation

	Protest	VotedLastYear	PolInterest	WatchNews	PolID
(Intercept)	-3.68 *	-2.65 *			-3.13 *
	[-4.40; -2.96]	[-3.13; -2.17]			[-3.59; -2.66]
cct1	-0.08	0.24 *	0.09	-0.13	0.18
	[-0.45; 0.30]	[0.01; 0.48]	[-0.08; 0.26]	[-0.31; 0.04]	[-0.05; 0.42]
q1	-0.18	-0.44 *	0.15 *	0.20 *	0.17 *
	[-0.42; 0.05]	[-0.59; -0.29]	[0.04; 0.26]	[0.08; 0.32]	[0.02; 0.32]
q2	0.02 *	0.07 *	0.00	0.02 *	0.02 *
	[0.01; 0.02]	[0.06; 0.07]	[-0.00; 0.01]	[0.02; 0.02]	[0.02; 0.03]
q10	-0.01	0.01	0.04 *	0.04 *	0.04 *
	[-0.03; 0.02]	[-0.01; 0.02]	[0.02; 0.05]	[0.03; 0.05]	[0.03; 0.06]
q5b	0.10	-0.09 *	0.01	-0.16 *	-0.05
	[-0.01; 0.21]	[-0.16; -0.02]	[-0.05; 0.07]	[-0.21; -0.10]	[-0.13; 0.03]
q12a	0.00	0.12 *	-0.04	0.05 *	-0.03
	[-0.08; 0.09]	[0.06; 0.17]	[-0.08; 0.00]	[0.01; 0.09]	[-0.09; 0.03]
ed	0.07 *	0.12 *	0.10 *	0.08 *	0.03 *
	[0.05; 0.10]	[0.10; 0.14]	[0.09; 0.12]	[0.06; 0.09]	[0.01; 0.04]
ur	-0.07	-0.15	-0.03	0.11	0.11
	[-0.33; 0.19]	[-0.31; 0.02]	[-0.15; 0.10]	[-0.02; 0.24]	[-0.06; 0.28]
b21	0.16 *	0.12 *	0.18 *	-0.04	0.18 *
	[0.08; 0.24]	[0.06; 0.17]	[0.14; 0.22]	[-0.08; 0.00]	[0.13; 0.22]
b32	-0.01	-0.03	0.02	0.02	0.00
	[-0.08; 0.05]	[-0.07; 0.01]	[-0.01; 0.05]	[-0.02; 0.05]	[-0.04; 0.04]
b13	-0.10 *	0.01	0.02	0.04 *	-0.02
	[-0.17; -0.03]	[-0.03; 0.06]	[-0.02; 0.05]	[0.01; 0.08]	[-0.06; 0.03]
b21a	-0.07 *	0.03	0.06 *	0.04 *	0.04
	[-0.14; -0.00]	[-0.02; 0.07]	[0.03; 0.09]	[0.00; 0.07]	[-0.00; 0.09]
factor(year)2012	-0.51 *	0.02	-0.21 *	-0.59 *	0.36 *
	[-0.96; -0.07]	[-0.23; 0.27]	[-0.38; -0.03]	[-0.78; -0.40]	[0.14; 0.58]
factor(year)2014	0.26	-0.27 *	-0.22 *	-0.59 *	-0.64 *
	[-0.10; 0.62]	[-0.50; -0.04]	[-0.39; -0.05]	[-0.77; -0.41]	[-0.86; -0.41]
factor(year)2016	0.26	-0.27 *	-0.22 *	-0.59 *	-0.64 *
	[-0.10; 0.62]	[-0.50; -0.04]	[-0.39; -0.05]	[-0.77; -0.41]	[-0.86; -0.41]
factor(year)2018	0.15	0.25 *	-0.23 *	-0.47 *	-0.85 *
	[-0.21; 0.52]	[0.01; 0.49]	[-0.39; -0.06]	[-0.65; -0.29]	[-1.08; -0.63]
norte	-0.29 *	0.01	-0.24 *	0.15 *	0.46 *
	[-0.54; -0.03]	[-0.15; 0.16]	[-0.36; -0.13]	[0.02; 0.27]	[0.31; 0.61]
cct1:q1	0.32	0.08	-0.04	0.11	0.12
	[-0.18; 0.81]	[-0.24; 0.40]	[-0.28; 0.19]	[-0.13; 0.36]	[-0.19; 0.44]
Never A Little			0.99 *		
			[0.65; 1.34]		
A Little Some			2.60 *		
			[2.25; 2.95]		
Some A Lot			4.31 *		
			[3.95; 4.67]		
Never Rarely				-1.93 *	
				[-2.32; -1.54]	
Rarely Somewhat Likely				-0.69 *	
				[-1.06; -0.32]	
Somewhat Likely Likely				-0.30	
				[-0.67; 0.07]	
Likely Daily				1.57 *	
				[1.20; 1.94]	
AIC	2890.71	5525.25	13929.85	12241.41	5648.29
BIC	3016.48	5650.98	14068.91	12386.99	5773.96
Log Likelihood	-1426.35	-2743.62	-6943.93	-6098.70	-2805.15
Deviance	2852.71	5487.25	13887.85	12197.41	5610.29
Num. obs.	5541	5527	5551	5527	5507

\* Null hypothesis value outside the confidence interval.

## Interaction - Trust

	LGovTrust	LegTrust	PolTrust	ExecTrust
cct1	0.19 *	0.16	0.20 *	0.31 *
	[ 0.03; 0.35]	[-0.00; 0.32]	[ 0.04; 0.36]	[ 0.15; 0.47]
q1	0.16 *	-0.01	0.08	0.10
	[ 0.06; 0.27]	[-0.11; 0.10]	[-0.03; 0.19]	[-0.01; 0.21]
q2	0.00	0.00	0.00 *	0.02 *
	[-0.00; 0.00]	[-0.00; 0.01]	[ 0.00; 0.01]	[ 0.02; 0.02]
q10	0.01	-0.00	-0.00	-0.01
	[-0.01; 0.02]	[-0.02; 0.01]	[-0.02; 0.01]	[-0.02; 0.01]
q5b	-0.23 *	-0.17 *	-0.19 *	-0.20 *
	[-0.29; -0.18]	[-0.22; -0.12]	[-0.25; -0.14]	[-0.25; -0.15]
q12a	0.01	-0.01	0.00	0.04 *
	[-0.02; 0.05]	[-0.05; 0.02]	[-0.04; 0.04]	[ 0.01; 0.08]
ed	-0.04 *	-0.03 *	-0.03 *	-0.00
	[-0.05; -0.02]	[-0.05; -0.02]	[-0.04; -0.01]	[-0.02; 0.01]
ur	-0.06	-0.06	-0.12 *	-0.25 *
	[-0.18; 0.05]	[-0.17; 0.06]	[-0.24; -0.00]	[-0.37; -0.14]
factor(year)2012	0.13	-0.06	0.26 *	0.12
	[-0.04; 0.29]	[-0.23; 0.11]	[ 0.10; 0.43]	[-0.04; 0.28]
factor(year)2014	-0.34 *	-0.56 *	-0.78 *	-1.52 *
	[-0.49; -0.18]	[-0.72; -0.40]	[-0.94; -0.62]	[-1.68; -1.36]
factor(year)2016	-0.34 *	-0.56 *	-0.78 *	-1.52 *
	[-0.49; -0.18]	[-0.72; -0.40]	[-0.94; -0.62]	[-1.68; -1.36]
factor(year)2018	-0.12	-0.03	-0.10	0.76 *
	[-0.28; 0.03]	[-0.19; 0.13]	[-0.26; 0.06]	[ 0.60; 0.92]
norte	0.55 *	0.40 *	0.60 *	0.67 *
	[ 0.44; 0.65]	[ 0.30; 0.51]	[ 0.49; 0.71]	[ 0.56; 0.78]
cct1:q1	0.07	0.02	0.06	0.12
	[-0.14; 0.29]	[-0.21; 0.25]	[-0.16; 0.29]	[-0.11; 0.34]
Not at all 2	-2.61 *	-2.74 *	-1.29 *	-1.25 *
	[-2.90; -2.31]	[-3.04; -2.44]	[-1.58; -0.99]	[-1.54; -0.96]
2 3	-1.90 *	-2.04 *	-0.61 *	-0.72 *
	[-2.19; -1.61]	[-2.33; -1.74]	[-0.91; -0.32]	[-1.01; -0.43]
3 4	-1.19 *	-1.32 *	0.10	-0.17
	[-1.48; -0.90]	[-1.61; -1.02]	[-0.19; 0.39]	[-0.46; 0.12]
4 5	-0.38 *	-0.44 *	0.88 *	0.45 *
	[-0.67; -0.09]	[-0.73; -0.14]	[ 0.58; 1.17]	[ 0.16; 0.73]
5 6	0.58 *	0.62 *	1.89 *	1.24 *
	[ 0.29; 0.87]	[ 0.33; 0.91]	[ 1.59; 2.19]	[ 0.95; 1.53]
6 A Lot	1.55 *	1.66 *	2.93 *	2.13 *
	[ 1.26; 1.84]	[ 1.36; 1.96]	[ 2.61; 3.25]	[ 1.83; 2.42]
AIC	22258.54	21074.10	19849.28	20282.82
BIC	22392.17	21206.82	19982.81	20416.44
Log Likelihood	-11109.27	-10517.05	-9904.64	-10121.41
Deviance	22218.54	21034.10	19809.28	20242.82
Num. obs.	5894	5631	5866	5890

\* Null hypothesis value outside the confidence interval.

## Appendix C: Statistical Tests for Brazil Models

### Civic Engagement

	Community	PartyMtg	Parent	RelOrgs	WomenGrp
cct1	0.14	0.21 *	0.38 *	0.03	0.11
q1	[-0.03; 0.30]	[ 0.03; 0.39]	[ 0.26; 0.51]	[-0.09; 0.15]	[-0.18; 0.40]
q2	0.02 *	-0.00	-0.01 *	0.01 *	0.02 *
q10	[ 0.01; 0.02]	[-0.01; 0.00]	[-0.01; -0.01]	[ 0.00; 0.01]	[ 0.01; 0.03]
q5b	-0.01	-0.00	0.00	0.01	0.00
q12a	[-0.03; 0.01]	[-0.02; 0.02]	[-0.01; 0.01]	[-0.00; 0.02]	[-0.03; 0.04]
ed	-0.08	-0.12 *	-0.21 *	-0.82 *	-0.29 *
b21	[-0.17; 0.01]	[-0.22; -0.01]	[-0.28; -0.13]	[-0.89; -0.75]	[-0.52; -0.07]
b32	0.06	0.01	0.49 *	-0.02	0.08
b13	[-0.00; 0.12]	[-0.06; 0.08]	[ 0.44; 0.54]	[-0.07; 0.02]	[-0.03; 0.19]
b21a	0.04 *	0.01	0.03 *	0.03 *	0.00
ur	[ 0.02; 0.06]	[-0.01; 0.04]	[ 0.01; 0.04]	[ 0.01; 0.04]	[-0.03; 0.04]
y2010	0.07 *	0.14 *	-0.01	0.02	0.05
y2012	[ 0.02; 0.12]	[ 0.09; 0.20]	[-0.05; 0.02]	[-0.01; 0.06]	[-0.04; 0.13]
y2014	0.05 *	0.07 *	0.03 *	0.03	0.06
y2016	[ 0.01; 0.08]	[ 0.03; 0.12]	[ 0.00; 0.06]	[-0.00; 0.05]	[-0.01; 0.13]
norte	0.02	0.00	-0.01	-0.01	0.02
Unlikely Somewhat Likely	[-0.02; 0.06]	[-0.05; 0.05]	[-0.04; 0.03]	[-0.04; 0.02]	[-0.06; 0.09]
Somewhat Likely Likely	-0.05 *	-0.02	0.01	0.03	0.00
Likely Very Likely	[-0.09; -0.01]	[-0.06; 0.02]	[-0.02; 0.04]	[-0.00; 0.05]	[-0.07; 0.08]
AIC	-0.77 *	-0.14	-0.01	0.15 *	-0.45 *
BIC	[-0.94; -0.61]	[-0.34; 0.06]	[-0.16; 0.14]	[ 0.02; 0.28]	[-0.76; -0.14]
Log Likelihood	-0.52 *	-1.23 *	-0.61 *	-0.11	-0.93 *
Deviance	[-0.74; -0.30]	[-1.49; -0.98]	[-0.78; -0.44]	[-0.27; 0.05]	[-1.31; -0.55]
Num. obs.	-0.36 *	-1.22 *	-0.18 *	0.08	-0.77 *
	[-0.60; -0.12]	[-1.51; -0.92]	[-0.36; -0.00]	[-0.09; 0.25]	[-1.21; -0.34]
	-0.22 *	-0.89 *	-0.33 *	0.38 *	-0.69 *
	[-0.42; -0.02]	[-1.11; -0.67]	[-0.49; -0.18]	[ 0.24; 0.52]	[-1.03; -0.35]
	0.09	0.08	0.20	0.05	
	[-0.11; 0.29]	[-0.12; 0.28]	[ 0.04; 0.36]	[-0.10; 0.20]	
	0.07	0.17	0.02	0.33 *	0.06
	[-0.10; 0.25]	[-0.02; 0.36]	[-0.12; 0.16]	[ 0.21; 0.46]	[-0.26; 0.38]
	1.95 *	1.87 *	0.14	-0.98 *	2.10 *
	[ 1.53; 2.38]	[ 1.39; 2.35]	[-0.20; 0.49]	[-1.30; -0.67]	[ 1.33; 2.88]
	2.82 *	2.97 *	1.07 *	-0.50 *	2.57 *
	[ 2.39; 3.25]	[ 2.49; 3.46]	[ 0.73; 1.42]	[-0.81; -0.18]	[ 1.79; 3.34]
	4.50 *	4.02 *	3.53 *	0.38 *	3.71 *
	[ 4.04; 4.96]	[ 3.52; 4.53]	[ 3.16; 3.90]	[ 0.07; 0.70]	[ 2.91; 4.51]
AIC	8218.63	6700.99	12805.20	15968.41	2651.88
BIC	8354.22	6836.55	12940.77	16103.99	2757.89
Log Likelihood	-4089.31	-3330.50	-6382.60	-7964.21	-1307.94
Deviance	8178.63	6660.99	12765.20	15928.41	2615.88
Num. obs.	6500	6489	6496	6496	2669

\* Null hypothesis value outside the confidence interval.

## Political Participation

	Protest	VotedLastYear	PolInterest	WatchNews	PolID
(Intercept)	-3.22 *	-2.41 *			-2.65 *
	[-3.84; -2.60]	[-2.89; -1.93]			[-3.05; -2.25]
cct1	0.15	0.07	0.06	0.12	0.31 *
	[-0.09; 0.39]	[-0.10; 0.24]	[-0.06; 0.19]	[-0.01; 0.25]	[ 0.16; 0.46]
q1	0.23 *	-0.09	0.43 *	0.25 *	0.25 *
	[ 0.05; 0.42]	[-0.23; 0.05]	[ 0.33; 0.53]	[ 0.14; 0.35]	[ 0.13; 0.37]
q2	-0.01 *	0.06 *	0.00	0.02 *	0.01 *
	[-0.02; -0.01]	[ 0.06; 0.07]	[-0.00; 0.01]	[ 0.01; 0.02]	[ 0.01; 0.02]
q10	0.01	0.02 *	0.04 *	0.04 *	0.01
	[-0.01; 0.04]	[ 0.00; 0.04]	[ 0.03; 0.06]	[ 0.02; 0.05]	[-0.00; 0.03]
q5b	0.04	-0.08	-0.05	-0.08 *	-0.08
	[-0.07; 0.16]	[-0.17; 0.01]	[-0.12; 0.02]	[-0.15; -0.02]	[-0.16; 0.00]
q12a	-0.11 *	0.22 *	-0.02	0.05	-0.04
	[-0.20; -0.01]	[ 0.15; 0.29]	[-0.07; 0.03]	[-0.00; 0.10]	[-0.09; 0.02]
ed	0.15 *	0.13 *	0.10 *	0.09 *	0.02 *
	[ 0.12; 0.18]	[ 0.11; 0.15]	[ 0.09; 0.12]	[ 0.07; 0.10]	[ 0.00; 0.04]
ur	0.08	-0.19	-0.24 *	0.29 *	0.00
	[-0.22; 0.37]	[-0.39; 0.02]	[-0.39; -0.10]	[ 0.15; 0.44]	[-0.17; 0.17]
b21	0.11 *	-0.01	0.13 *	-0.05 *	0.16 *
	[ 0.03; 0.18]	[-0.06; 0.04]	[ 0.10; 0.17]	[-0.09; -0.01]	[ 0.11; 0.20]
b32	-0.01	0.01	0.06 *	-0.04 *	-0.00
	[-0.06; 0.05]	[-0.04; 0.05]	[ 0.03; 0.09]	[-0.07; -0.01]	[-0.04; 0.03]
b13	-0.07 *	-0.02	-0.01	-0.01	-0.01
	[-0.14; -0.01]	[-0.06; 0.03]	[-0.04; 0.02]	[-0.04; 0.03]	[-0.04; 0.03]
b21a	-0.05	0.07 *	0.06 *	0.06 *	0.08 *
	[-0.11; 0.00]	[ 0.03; 0.11]	[ 0.03; 0.09]	[ 0.03; 0.09]	[ 0.04; 0.11]
y2010	-0.45 *	0.74 *	-0.13	-0.26 *	0.38 *
	[-0.78; -0.12]	[ 0.50; 0.98]	[-0.32; 0.06]	[-0.44; -0.09]	[ 0.18; 0.57]
y2012	-1.11 *	0.88 *	-0.39 *	-0.95 *	0.29 *
	[-1.52; -0.69]	[ 0.60; 1.16]	[-0.59; -0.19]	[-1.13; -0.76]	[ 0.09; 0.50]
y2014	-0.33 *	0.07	-0.32 *	0.16	0.07
	[-0.60; -0.06]	[-0.13; 0.26]	[-0.50; -0.14]	[-0.00; 0.33]	[-0.12; 0.25]
y2016	0.31 *	0.24 *	-0.01	-0.27 *	-0.01
	[ 0.05; 0.56]	[ 0.04; 0.45]	[-0.20; 0.17]	[-0.44; -0.10]	[-0.21; 0.19]
norte	0.12	0.32 *	0.18 *	0.19 *	-0.01
	[-0.13; 0.37]	[ 0.12; 0.53]	[ 0.04; 0.31]	[ 0.05; 0.34]	[-0.17; 0.15]
Never A Little			1.06 *		
			[ 0.71; 1.41]		
A Little Some			3.08 *		
			[ 2.72; 3.44]		
Some A Lot			4.14 *		
			[ 3.78; 4.51]		
Never Rarely				-2.04 *	
				[-2.42; -1.66]	
Rarely Somewhat Likely				-0.74 *	
				[-1.10; -0.38]	
Somewhat Likely Likely				-0.37 *	
				[-0.73; -0.02]	
Likely Daily				1.16 *	
				[ 0.81; 1.51]	
AIC	3513.65	5380.11	13752.36	12679.67	7131.26
BIC	3635.72	5502.19	13885.73	12822.06	7253.20
Log Likelihood	-1738.83	-2672.06	-6856.18	-6318.83	-3547.63
Deviance	3477.65	5344.11	13712.36	12637.67	7095.26
Num. obs.	6513	6518	5817	6507	6465

\* Null hypothesis value outside the confidence interval.

## Trust

	LGovTrust	LegTrust	PolTrust	ExecTrust
cct1	0.10 [-0.01; 0.21]	0.14 * [ 0.02; 0.25]	0.12 * [ 0.01; 0.23]	0.22 * [ 0.11; 0.33]
q1	0.07 [-0.02; 0.16]	-0.04 [-0.13; 0.05]	-0.00 [-0.09; 0.09]	0.22 * [ 0.14; 0.31]
q2	0.00 * [ 0.00; 0.01]	-0.00 [-0.01; 0.00]	-0.00 [-0.01; 0.00]	0.01 * [ 0.01; 0.01]
q10	0.01 [-0.01; 0.02]	-0.02 * [-0.03; -0.01]	-0.01 * [-0.03; -0.00]	-0.01 [-0.02; 0.00]
q5b	-0.09 * [-0.15; -0.03]	-0.07 * [-0.13; -0.01]	-0.07 * [-0.13; -0.01]	-0.14 * [-0.20; -0.08]
q12a	-0.01 [-0.05; 0.03]	0.01 [-0.03; 0.05]	-0.00 [-0.05; 0.04]	0.02 [-0.02; 0.06]
ed	-0.02 * [-0.04; -0.01]	-0.05 * [-0.06; -0.03]	-0.03 * [-0.04; -0.02]	-0.04 * [-0.05; -0.02]
ur	-0.36 * [-0.49; -0.24]	-0.19 * [-0.32; -0.06]	-0.24 * [-0.37; -0.11]	-0.28 * [-0.40; -0.15]
y2010	0.39 * [ 0.25; 0.54]	0.02 [-0.13; 0.17]	0.63 * [ 0.48; 0.78]	0.50 * [ 0.35; 0.65]
y2012	0.02 [-0.14; 0.17]	0.07 [-0.08; 0.23]	0.58 * [ 0.42; 0.74]	0.24 * [ 0.09; 0.40]
y2014	-0.25 * [-0.38; -0.12]	-0.51 * [-0.64; -0.38]	-0.07 [-0.21; 0.07]	-0.72 * [-0.85; -0.59]
y2016	-0.20 * [-0.33; -0.06]	-0.60 * [-0.73; -0.46]	-0.39 * [-0.53; -0.25]	-1.90 * [-2.05; -1.76]
norte	-0.08 [-0.20; 0.04]	0.32 * [ 0.20; 0.44]	0.33 * [ 0.21; 0.46]	0.16 * [ 0.04; 0.28]
Not at all 2	-1.62 * [-1.88; -1.35]	-2.01 * [-2.28; -1.73]	-0.91 * [-1.19; -0.64]	-1.94 * [-2.22; -1.67]
2 3	-1.01 * [-1.27; -0.74]	-1.39 * [-1.66; -1.12]	-0.26 [-0.54; 0.01]	-1.47 * [-1.74; -1.20]
3 4	-0.39 * [-0.65; -0.12]	-0.74 * [-1.00; -0.47]	0.44 * [ 0.16; 0.72]	-0.96 * [-1.23; -0.69]
4 5	0.30 * [ 0.03; 0.56]	-0.01 [-0.28; 0.26]	1.23 * [ 0.96; 1.51]	-0.35 * [-0.62; -0.08]
5 6	1.18 * [ 0.92; 1.45]	0.82 * [ 0.55; 1.09]	2.13 * [ 1.85; 2.42]	0.39 * [ 0.12; 0.66]
6 A Lot	1.97 * [ 1.70; 2.24]	1.64 * [ 1.36; 1.92]	2.95 * [ 2.65; 3.25]	1.15 * [ 0.88; 1.43]
AIC	25077.16	23991.81	21314.16	23476.55
BIC	25206.47	24120.91	21443.45	23605.89
Log Likelihood	-12519.58	-11976.90	-10638.08	-11719.27
Deviance	25039.16	23953.81	21276.16	23438.55
Num. obs.	6671	6598	6664	6684

\* Null hypothesis value outside the confidence interval.

## Interaction - Civic Engagement

	Community	PartyMtg	Parent	RelOrgs	WomenGrp
cct1	0.08 [-0.13; 0.30]	0.17 [-0.07; 0.42]	0.47 * [ 0.32; 0.62]	-0.02 [-0.17; 0.13]	0.11 [-0.18; 0.40]
q1	0.27 * [ 0.12; 0.42]	0.35 * [ 0.18; 0.52]	-0.48 * [-0.60; -0.36]	-0.35 * [-0.46; -0.25]	
q2	0.02 * [ 0.01; 0.02]	-0.00 [-0.01; 0.00]	-0.01 * [-0.01; -0.01]	0.01 * [ 0.00; 0.01]	0.02 * [ 0.01; 0.03]
q10	-0.01 [-0.03; 0.01]	-0.00 [-0.02; 0.02]	0.00 [-0.01; 0.01]	0.01 [-0.00; 0.02]	0.00 [-0.03; 0.04]
q5b	-0.08 [-0.17; 0.01]	-0.12 * [-0.22; -0.01]	-0.21 * [-0.28; -0.13]	-0.82 * [-0.89; -0.75]	-0.29 * [-0.52; -0.07]
q12a	0.06 [-0.00; 0.12]	0.01 [-0.06; 0.08]	0.49 * [ 0.44; 0.54]	-0.02 [-0.07; 0.02]	0.08 [-0.03; 0.19]
ed	0.04 * [ 0.02; 0.06]	0.01 [-0.01; 0.04]	0.03 * [ 0.01; 0.04]	0.03 * [ 0.01; 0.04]	0.00 [-0.03; 0.04]
b21	0.07 * [ 0.02; 0.12]	0.14 * [ 0.09; 0.20]	-0.01 [-0.05; 0.02]	0.02 [-0.01; 0.06]	0.05 [-0.04; 0.13]
b32	0.05 * [ 0.01; 0.08]	0.07 * [ 0.03; 0.12]	0.03 * [ 0.00; 0.06]	0.03 * [-0.00; 0.05]	0.06 [-0.01; 0.13]
b13	0.02 [-0.02; 0.06]	0.00 [-0.04; 0.05]	-0.01 [-0.04; 0.03]	-0.01 [-0.04; 0.02]	0.02 [-0.06; 0.09]
b21a	-0.05 * [-0.09; -0.01]	-0.02 [-0.06; 0.02]	0.01 [-0.02; 0.04]	0.03 [-0.00; 0.05]	0.00 [-0.07; 0.08]
ur	-0.77 * [-0.94; -0.61]	-0.14 [-0.34; 0.06]	-0.01 [-0.16; 0.13]	0.15 * [ 0.02; 0.29]	-0.45 * [-0.76; -0.14]
factor(year)2012	0.16 [-0.13; 0.44]	0.02 [-0.34; 0.37]	0.42 * [ 0.21; 0.63]	0.19 [-0.00; 0.38]	0.15 [-0.33; 0.64]
factor(year)2014	0.30 * [ 0.06; 0.53]	0.34 * [ 0.06; 0.63]	0.28 * [ 0.10; 0.46]	0.49 * [ 0.33; 0.65]	0.24 [-0.16; 0.64]
factor(year)2016	0.61 * [ 0.38; 0.83]	1.31 * [ 1.05; 1.58]	0.81 * [ 0.63; 0.98]	0.16 [-0.00; 0.33]	0.93 * [ 0.55; 1.31]
factor(year)2018	0.52 * [ 0.30; 0.74]	1.23 * [ 0.98; 1.49]	0.61 * [ 0.43; 0.78]	0.11 [-0.05; 0.27]	
norte	0.07 [-0.10; 0.25]	0.17 [-0.02; 0.36]	0.03 [-0.11; 0.16]	0.33 * [ 0.21; 0.46]	0.06 [-0.26; 0.38]
cct1:q1	0.11 [-0.17; 0.40]	0.07 [-0.25; 0.38]	-0.23 * [-0.45; -0.00]	0.12 [-0.09; 0.33]	
Unlikely Somewhat Likely	2.46 * [ 2.01; 2.90]	3.09 * [ 2.57; 3.61]	0.77 * [ 0.42; 1.13]	-0.88 * [-1.21; -0.56]	3.03 * [ 2.17; 3.89]
Somewhat Likely Likely	3.33 * [ 2.87; 3.78]	4.20 * [ 3.67; 4.73]	1.70 * [ 1.35; 2.06]	-0.40 * [-0.72; -0.07]	3.49 * [ 2.63; 4.36]
Likely Very Likely	5.01 * [ 4.53; 5.49]	5.25 * [ 4.70; 5.80]	4.17 * [ 3.78; 4.55]	0.48 * [ 0.16; 0.81]	4.63 * [ 3.75; 5.52]
AIC	8220.02	6702.81	12803.32	15969.17	2651.88
BIC	8362.39	6845.15	12945.68	16111.52	2757.89
Log Likelihood	-4089.01	-3330.41	-6380.66	-7963.58	-1307.94
Deviance	8178.02	6660.81	12761.32	15927.17	2615.88
Num. obs.	6500	6489	6496	6496	2669

\* Null hypothesis value outside the confidence interval.



## Interaction - Political Participation

	Protest	VotedLastYear	PolInterest	WatchNews	PolID
(Intercept)	-3.71 *	-1.68 *			-2.27 *
	[-4.37; -3.05]	[-2.19; -1.18]			[-2.68; -1.86]
cct1	0.33 *	0.15	0.19 *	0.20 *	0.28 *
	[ 0.02; 0.64]	[-0.07; 0.37]	[ 0.03; 0.35]	[ 0.03; 0.36]	[ 0.09; 0.48]
q1	0.32 *	-0.04	0.51 *	0.30 *	0.23 *
	[ 0.11; 0.53]	[-0.21; 0.12]	[ 0.39; 0.62]	[ 0.18; 0.42]	[ 0.10; 0.37]
q2	-0.01 *	0.06 *	0.00	0.02 *	0.01 *
	[-0.02; -0.01]	[ 0.06; 0.07]	[-0.00; 0.01]	[ 0.01; 0.02]	[ 0.01; 0.02]
q10	0.01	0.02 *	0.04 *	0.04 *	0.01
	[-0.01; 0.04]	[ 0.00; 0.04]	[ 0.03; 0.06]	[ 0.02; 0.05]	[-0.00; 0.03]
q5b	0.04	-0.08	-0.05	-0.08 *	-0.08
	[-0.07; 0.16]	[-0.17; 0.01]	[-0.12; 0.02]	[-0.15; -0.02]	[-0.16; 0.00]
q12a	-0.11 *	0.22 *	-0.02	0.05	-0.04
	[-0.21; -0.02]	[ 0.15; 0.29]	[-0.07; 0.03]	[-0.00; 0.10]	[-0.09; 0.02]
ed	0.15 *	0.13 *	0.10 *	0.08 *	0.02 *
	[ 0.12; 0.18]	[ 0.11; 0.15]	[ 0.09; 0.12]	[ 0.07; 0.10]	[ 0.00; 0.04]
ur	0.07	-0.19	-0.25 *	0.29 *	0.00
	[-0.22; 0.37]	[-0.39; 0.02]	[-0.39; -0.10]	[ 0.15; 0.43]	[-0.17; 0.17]
b21	0.11 *	-0.01	0.14 *	-0.05 *	0.16 *
	[ 0.04; 0.18]	[-0.06; 0.04]	[ 0.10; 0.17]	[-0.09; -0.01]	[ 0.11; 0.20]
b32	-0.01	0.00	0.06 *	-0.04 *	-0.00
	[-0.06; 0.05]	[-0.04; 0.05]	[ 0.03; 0.09]	[-0.07; -0.01]	[-0.04; 0.03]
b13	-0.07 *	-0.02	-0.01	-0.01	-0.01
	[-0.14; -0.01]	[-0.06; 0.03]	[-0.04; 0.02]	[-0.04; 0.03]	[-0.04; 0.03]
b21a	-0.05	0.07 *	0.06 *	0.06 *	0.08 *
	[-0.11; 0.00]	[ 0.03; 0.11]	[ 0.03; 0.09]	[ 0.03; 0.09]	[ 0.04; 0.11]
factor(year)2012	-0.66 *	0.13	-0.26 *	-0.69 *	-0.08
	[-1.15; -0.18]	[-0.20; 0.46]	[-0.46; -0.06]	[-0.90; -0.48]	[-0.32; 0.16]
factor(year)2014	0.11	-0.68 *	-0.19 *	0.42 *	-0.31 *
	[-0.24; 0.47]	[-0.93; -0.43]	[-0.36; -0.02]	[ 0.24; 0.61]	[-0.51; -0.11]
factor(year)2016	0.75 *	-0.50 *	0.12	-0.01	-0.38 *
	[ 0.42; 1.08]	[-0.75; -0.26]	[-0.05; 0.28]	[-0.19; 0.17]	[-0.59; -0.18]
factor(year)2018	0.45 *	-0.75 *	0.13	0.26 *	-0.38 *
	[ 0.11; 0.78]	[-0.99; -0.51]	[-0.06; 0.32]	[ 0.09; 0.43]	[-0.57; -0.18]
norte	0.13	0.33 *	0.18 *	0.19 *	-0.01
	[-0.12; 0.37]	[ 0.12; 0.53]	[ 0.04; 0.31]	[ 0.05; 0.34]	[-0.17; 0.15]
cct1:q1	-0.39	-0.18	-0.29 *	-0.19	0.05
	[-0.82; 0.05]	[-0.49; 0.12]	[-0.51; -0.06]	[-0.42; 0.04]	[-0.20; 0.31]
Never A Little			1.22 *		
A Little Some			[ 0.88; 1.57]		
Some A Lot			3.24 *		
			[ 2.89; 3.60]		
Never Rarely			4.31 *		
			[ 3.94; 4.67]		
Rarely Somewhat Likely				-1.76 *	
				[-2.15; -1.37]	
Somewhat Likely Likely				-0.46 *	
				[-0.83; -0.09]	
Likely Daily				-0.09	
				[-0.46; 0.27]	
				1.44 *	
				[ 1.07; 1.80]	
AIC	3512.56	5380.69	13748.08	12679.12	7133.09
BIC	3641.41	5509.56	13888.12	12828.29	7261.80
Log Likelihood	-1737.28	-2671.35	-6853.04	-6317.56	-3547.55
Deviance	3474.56	5342.69	13706.08	12635.12	7095.09
Num. obs.	6513	6518	5817	6507	6465

\* Null hypothesis value outside the confidence interval.

## Interaction - Trust

	LGovTrust	LegTrust	PolTrust	ExecTrust
cct1	0.17 *	0.14	0.10	0.25 *
	[ 0.03; 0.31]	[-0.01; 0.28]	[-0.04; 0.24]	[ 0.11; 0.40]
q1	0.10 *	-0.04	-0.01	0.24 *
	[ 0.00; 0.20]	[-0.14; 0.06]	[-0.12; 0.09]	[ 0.14; 0.34]
q2	0.00 *	-0.00	-0.00	0.01 *
	[ 0.00; 0.01]	[-0.01; 0.00]	[-0.01; 0.00]	[ 0.01; 0.01]
q10	0.01	-0.02 *	-0.01 *	-0.01
	[-0.00; 0.02]	[-0.03; -0.01]	[-0.03; -0.00]	[-0.02; 0.00]
q5b	-0.09 *	-0.07 *	-0.07 *	-0.14 *
	[-0.15; -0.03]	[-0.13; -0.01]	[-0.13; -0.01]	[-0.20; -0.08]
q12a	-0.01	0.01	-0.00	0.02
	[-0.05; 0.03]	[-0.03; 0.05]	[-0.05; 0.04]	[-0.02; 0.06]
ed	-0.02 *	-0.05 *	-0.03 *	-0.04 *
	[-0.04; -0.01]	[-0.06; -0.03]	[-0.04; -0.02]	[-0.05; -0.02]
ur	-0.37 *	-0.19 *	-0.24 *	-0.28 *
	[-0.49; -0.24]	[-0.32; -0.06]	[-0.37; -0.11]	[-0.40; -0.15]
factor(year)2012	-0.38 *	0.06	-0.05	-0.26 *
	[-0.56; -0.20]	[-0.13; 0.24]	[-0.23; 0.14]	[-0.44; -0.08]
factor(year)2014	-0.65 *	-0.53 *	-0.70 *	-1.22 *
	[-0.80; -0.50]	[-0.68; -0.38]	[-0.85; -0.55]	[-1.37; -1.07]
factor(year)2016	-0.59 *	-0.61 *	-1.02 *	-2.40 *
	[-0.73; -0.45]	[-0.76; -0.47]	[-1.16; -0.87]	[-2.56; -2.25]
factor(year)2018	-0.40 *	-0.02	-0.63 *	-0.50 *
	[-0.54; -0.25]	[-0.17; 0.13]	[-0.78; -0.48]	[-0.65; -0.35]
norte	-0.08	0.32 *	0.33 *	0.16 *
	[-0.20; 0.04]	[ 0.20; 0.44]	[ 0.21; 0.45]	[ 0.04; 0.28]
cct1:q1	-0.15	0.00	0.05	-0.07
	[-0.35; 0.05]	[-0.20; 0.20]	[-0.16; 0.25]	[-0.28; 0.13]
Not at all 2	-2.00 *	-2.03 *	-1.55 *	-2.44 *
	[-2.27; -1.73]	[-2.30; -1.75]	[-1.83; -1.27]	[-2.72; -2.16]
2 3	-1.39 *	-1.41 *	-0.90 *	-1.97 *
	[-1.66; -1.12]	[-1.68; -1.13]	[-1.18; -0.62]	[-2.24; -1.69]
3 4	-0.77 *	-0.76 *	-0.20	-1.46 *
	[-1.04; -0.50]	[-1.03; -0.48]	[-0.47; 0.08]	[-1.73; -1.18]
4 5	-0.08	-0.03	0.60 *	-0.84 *
	[-0.35; 0.19]	[-0.30; 0.24]	[ 0.32; 0.88]	[-1.11; -0.57]
5 6	0.80 *	0.80 *	1.50 *	-0.10
	[ 0.53; 1.07]	[ 0.52; 1.07]	[ 1.21; 1.78]	[-0.38; 0.17]
6 A Lot	1.59 *	1.62 *	2.32 *	0.66 *
	[ 1.31; 1.86]	[ 1.34; 1.90]	[ 2.01; 2.62]	[ 0.39; 0.94]
AIC	25077.11	23993.81	21315.97	23478.03
BIC	25213.22	24129.70	21452.06	23614.18
Log Likelihood	-12518.55	-11976.90	-10637.98	-11719.02
Deviance	25037.11	23953.81	21275.97	23438.03
Num. obs.	6671	6598	6664	6684

\* Null hypothesis value outside the confidence interval.



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