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# Evo Morales and the indigenous peoples in Bolivia: an analysis of the 2002 and 2005 presidential elections

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Evo Morales and the indigenous peoples in Bolivia: an analysis of the 2002 and 2005  
presidential elections

by

Basil Riad Mahayni

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

Major: Political Science

Program of Study Committee:  
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Iowa State University

Ames, Iowa

2007

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## **Dedication**

I would like to dedicate my thesis to my parents, Riad and Fatina, and my brother Tamim for their endless love and support.

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## **List of Definitions**

*Campesino*: Spanish word usually used to describe subsistence indigenous farmers

*Central Obrera Boliviana*: chief trade union federation in Bolivia

*Confederación Sindical Unica de Trabajadores Campesinos* de Bolivia: Bolivian labor union founded under the Tupac Katari Revolutionary Movement

*Cocalero*: a description of a coca leaf grower

*Indigenous*: ethnicity in which a person identifies as being a descendent of the original inhabitants of the land

*Katarista*: description for the *Tupac Katari* Movement

*La Ley de Participación Popular*: 1994 law promoting economic and political decentralization

## List of Abbreviations

ADN: *Acción Democrática Nacionalista*

ASP: *Asamblea de la Soberanía de los Pueblos*

COB: *Central Obrera Boliviana*

CONDEPA: *Conciencia de Patria*

CSUTCB: *Confederación Sindical Única de Trabajadores Campesinos de Bolivia*

IU: *Izquierda Unida*

LPP: *La Ley de Participación Popular*

MAS: *Movimiento al Socialismo*

MIR: *Movimiento de la Izquierda Revolucionaria*

MNR: *Movimiento Nacionalista Revolucionaria*

NFR: *Nueva Fuerza Republicana*

PODEMOS: *Poder Democrático y Social*

## Acknowledgements

My desire to examine the questions presented in this thesis originated with a study abroad to Sucre, Bolivia in the summer of 2004. I had no intention of studying in Bolivia, but the persistence of a good friend of mine convinced me that a study abroad was a necessary one to complete my academic experience at Iowa State. Upon returning to the United States, I had many questions regarding the tumult and injustice that has come to define the lives for many in Bolivia. I would not have been able to successfully examine these questions, including my thesis, without the help of many important people.

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## **Abstract**

This thesis examines the relationship between the indigenous peoples and the electoral success of Evo Morales in the 2002 and 2005 Bolivian presidential elections. Morales earned a surprising 20% of the vote in 2002 enough for second place. In 2005, Morales earned over 50% of the presidential vote. He is the first indigenous president of Bolivia and is the first to receive over 50% of the vote since the re-transition to democracy. The electoral success of Morales has been framed in the context of the indigenusness in Bolivia, the country with the highest proportions of indigenous peoples in South America. This thesis explores whether or not indigenusness offers a compelling explanation for the unprecedented electoral success for Evo Morales in the 2002 and 2005 elections. The findings of this thesis suggest that the relationship between Morales's electoral performance and indigenusness is not as strong as previously suggested.

## Chapter 1: Introduction

Indigenusness in Bolivia has been regarded as a source for Evo Morales's electoral victory in 2005, the first indigenous president in Bolivia. Morales, a *cocalero* (coca grower) turned politician, defied the electoral trends of Bolivia when he was elected as the first full-blooded indigenous president in the country's history. He first contested for the presidency in the 2002 election where he placed second with approximately 20% of the national vote. In 2005, Morales increased his share of the vote to over 50% becoming the first president to win a majority of the vote since the re-transition to democracy. The 2002 and 2005 presidential elections were held in a context of political turmoil and increased reflections upon indigenous identity. Morales's victory was seen as a success for indigenous people as scholars, politicians, and the media were quick to highlight the importance of indigenusness when analyzing the results of the 2002 and 2005 elections. This analysis will examine the relationship between indigenusness and the propensity to vote for Evo Morales.

### *1.1 Purpose of the Study*

In examining the rise of Morales, and his party *Movimiento al Socialismo* (MAS), in the 2002 election and his victory in 2005, I primarily concern myself with the relationship between indigenusness and the rise of MAS. I define indigenusness as an ethnicity in which a person identifies as being a descendent of the pre-Hispanic inhabitants of Bolivia. Taking the changes of Bolivian politics into consideration, I develop two goals for this project:

1. *To understand the relationship between indigenusness and the MAS's performance in 2002 and 2005*

2. *To understand the relationship between the selected control variables of socio-economic indicators, employment by sector, and the variation among Bolivia's nine departments<sup>1</sup> and MAS's electoral victory in 2002 and 2005*

These two goals highlight possible sources for Evo Morales's electoral success. Through an empirical examination, we can attempt to better understand the relationship between the performance of MAS and the indigenous peoples.

I believe an empirical study of this phenomenon will show that this relationship has been misdiagnosed. The perceived relationship between the indigenous movements and the rise of MAS is an indication of other factors and not indigenousness itself, especially considering its high correlation with indicators pointing to a low quality of life. Previous research on indigenousness and the ascension of MAS has relied upon constructivist theories of identity, thick descriptions of indigenous politics, and basic analyses of socio-economic indicators and their effects upon indigenous political activity (Albro 2005; Albro 2006; Andolina, Radcliffe, and Laurie 2005; Cleary 2006; Madrid 2005; Van Cott 2000). These have not systematically examined the ascension of Morales's party and its relationship to the electoral behavior of the indigenous peoples. This analysis seeks to build on this previous research by using a statistical analysis to better understand the electoral performance of Morales and his political party.

The motivation for studying the improved electoral performance of MAS is to deepen our knowledge of the evolution in Bolivian politics. The country has experienced

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<sup>1</sup> Bolivia consists of nine sub-national political units that operate like states in the United States. These units are referred to as Departments

a shift in the political scene as many indigenous leaders now serve with traditional political elites in the chambers of Bolivia's congress. By understanding the role of indigenusness, and more generally the role of identity in electoral behavior, we can better explore the sources of this change in Bolivia's politics. This research also carries implications for parts of the world experiencing similar political shifts whereby new parties or historically disenfranchised groups rise to power around what appear to be mobilizations around identity.

### *1.2 Statement of the Problem*

The indigenous actors in Bolivia are not a new source of tumult nor have they been politically neglected by the elites. Their apparent political empowerment of Evo Morales through the presidential elections, however, has yet to be empirically examined. Scholars have articulated many ideas concerning the rise and success of MAS as a viable political entity. These discussions typically center on the political empowerment of indigenous peoples, structural changes like decentralization policies, and politicization of the ethnic movements (Rice and Van Cott 2006; Cleary 2006; Hiskey and Seligson 2003). There is no doubt that these all are important contextual factors that help define the emergence of MAS. However, these discussions have overstated the importance of the indigenusness in the Bolivian shift. This thesis begins to answer the general question why MAS and Morales performed surprisingly well in 2002 and gained an unprecedented victory in 2005. The primary question to determine relationship between indigenous peoples and the shift towards MAS:

*How did indigenous self-identification affect propensity to vote for MAS in 2002 and 2005?*



I include three additional questions to supplement the primary question with the intention of developing a coherent model that can be used to explain MAS-like shifts in other countries. These questions, developed through a review of the literature and the apparent causes of the volatility in Bolivia, are:

1. *Is there a relationship between the electoral performance of MAS in 2002 and in 2005 and socio-economic characteristics of MAS supporters?*
2. *Is there a relationship between the electoral performance of MAS votes in 2002 and in 2005 and employment by economic sectors of MAS supporters?*
3. *Is there a relationship between the electoral performance MAS votes in 2002 and in 2005 and the location by department and MAS supporters?*

For these questions, the null hypotheses are:

*H1: There is no relationship between the proportions of indigenous peoples in a municipality and the votes for MAS in 2002 and 2005.*

*H2: There is no relationship between the socio-economic conditions pointing to a lower quality of life in a municipality and the votes for MAS in 2002 and 2005.*

*H3: There is no relationship between employment in a sector of the economy in a municipality and the votes for MAS in 2002 and 2005.*

*H4: There is no relationship between the location by department of voters and the votes for MAS in 2002 and 2005.*

The question of indigenusness and MAS performance is central to this analysis.

Scholars have examined the strategic importance of indigenusness in Bolivian politics and the structural conditions that have created opportunities for parties like MAS to rise.

This analysis builds upon these previous analyses to understand whether or not that indigenouness was crucial to the electoral performance of MAS.

### *1.3 Describing Bolivia*

To grasp the nature of Bolivian politics, one must understand that Bolivia has a diverse ethnic and economic composition. This South American state has the highest proportion of indigenous peoples in the region, with Quechua and Aymara as the largest groups (CIA World Fact Book). This carries significant implications for Bolivian politics, as I will indicate below.

Bolivia's rich natural resources, especially natural gas, have also impacted the political scene with competing demands for regional autonomy and the nationalization of gas. The question of gas was central to the toppling of President Sánchez de Lozada in 2003 and again in 2005 when President Carlos Mesa resigned from office. The mining sector has been traditionally strong, especially in the area of tin, but the collapse of the tin market and the privatization schemes during the neo-liberal economic transition in the 1980s left many miners unemployed. Many of these miners turned to coca cultivation as an alternative form of work because it seemingly offers a stable source of income (CIA World Fact Book). However, coca growth is controversial in Bolivia and abroad due to its association with cocaine production and the drug trade. The Chaparé region near Cochabamba is especially conducive to the cultivation of coca and has become the epicenter of *cocalero* organizing and anti-drug activities, including rise of MAS in the late 1990s.

### 1.4 Methodology

Utilizing a statistical approach, I empirically examine the relationship between the rise of MAS and indigenusness at the municipal level in Bolivia. The election results for 2002 and 2005, which serve as the dependent variable, were obtained from the *Córite Electoral Nacional* (CNE). MAS's performance was measured as a proportion of the total votes received to minimize the impact of regional population centers. In this manner I can uniformly test the relationship between indigenusness and the rise of MAS across the municipalities in Bolivia.

The independent variables were aggregated into four groups. First, I included a demographic variable to understand the relationship between indigenusness and the rise of MAS. Second, the analysis examines the relationship between socio-economic variables, employment by economic sector, and departmental variation to understand how these factors may affect voter behavior. Bolivia's nine departments are geographically and demographically distinct, creating two blocs in what can be considered the western highlands (Chuquisaca, Cochabamba, La Paz, Oruro, and Potosi) and the eastern lowlands (El Beni, Pando, Santa Cruz, and Tarija). These four sets of variables were primarily collected from the Bolivian census from 2000. Several of the variables were also collected from the *Instituto Nacional Estadistical* (INE), the main statistical agency of the Bolivian government. While this examination of the rise of MAS may only be a snapshot of the time,<sup>2</sup> it still provides a level generalizability because of the complete and coherent nature of the analysis.

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<sup>2</sup> I borrowed the term "snapshot" terminology from Roberta Rice and Donna Lee Van Cott in their article "The Emergence and Performance of Indigenous Peoples' Parties in South America: A Subnational Statistical Analysis."

I believe this statistical analysis will provide needed breadth to the existing literature and more important generate new questions for exploration. Studies of indigenous political movements in the developing world are often undertaken with a qualitative approach, but the quantitative methods can allow us to empirically test these qualitative notions. With some effort, we can employ the quantitative approach to form an effective and coherent argument about broader trends of our questions.

### *1.5 Organization of the Study*

This thesis is organized in the following way: Chapters 2 provides some background of Bolivia, including the history of the relationship between political parties and indigenous peoples in Bolivia, the formation of MAS, and the 2002 and 2005 presidential elections. Chapter 3 discusses indigenusness and its relation to politics, socio-economic factors and politics, political implications of divisions by economic sectors and politics, and departmental differences and political implications. In Chapter 4, highlights the methodological approach, the data collection, and the operationalization of the variables. Chapter 5 shares the results of the statistical analyses, and Chapter 6 assesses the question of importance and concludes the analysis.

## Chapter 2: Background

The electoral victory of MAS may be construed as a widespread rejection of the political establishment and the neo-liberal economic policies that have failed to generate the promised economic growth. It may also be deemed an exercise of indigenism. The relationship between the indigenous peoples as a political force and the success of MAS needs to be studied. Scholars have explained indigenous patterns of behavior in terms of politicization of ethnicity (Van Cott 2000; Birnir and Van Cott 2007; Yashar 2006), shakeups in the economic system (Domingo 2005; Van Cott 2006), and structural changes such as the constitutional and electoral reforms of the early to mid-1990s (Hiskey and Seligson 2003; Postero 2004; Gurr 2000; Madrid 2007). My approach builds upon these previous approaches by empirically and directly testing the importance of indigenism on the performance of MAS in 2002 and 2005.

The results of my analysis can be better understood with the following sections highlighting the history and context of Bolivian politics. In this chapter, I highlight why Bolivia is a case study for understanding the role of identity and political behavior. I additionally elaborate on the history of the political party system and indigenous peoples in Bolivia, the formation of MAS, and provide a brief discussion on the 2002 and 2005 elections.

### *2.1 Bolivia as a Case Study for Latin America*

The rise of MAS as a political power in Bolivia is indicative of the changing atmosphere in Bolivian politics. Using Bolivia as a case study, we can generalize our findings and apply our model to areas experiencing similar political shifts. There have been political shifts in several Latin American states, including electoral shifts in

Venezuela and Brazil and uprisings in Peru, Ecuador, and Mexico. These shifts appear to be a rejection of the establishment and of the neo-liberal economic policies. Bolivia, however, is unique in several ways. With the highest proportion of indigenous peoples in Latin America, it provides us with a unique and identifiable source of the electoral success of Morales. The high levels of poverty and other low ranking quality of life indicators are also widespread that Bolivia ranks as the poorest and least developed state in South America.

It may be easy to assert that Bolivia is not representative of a typical Latin American state, depending on one's definition, because of these unique characteristics. I argue that the conditions unique to Bolivia provide a compelling reason to proceed with this study. The distinctively high, or low, measures of the variables included in this analysis create an opportunity for clear rather than diluted results.

## *2.2 History of the Political Party System and Indigenous Peoples*

The current relationship between the political parties and the indigenous peoples in Bolivia is not a new development. To understand the 2002 electoral performance and the 2005 MAS presidential victory, we must contextualize Bolivian politics through a historical analysis of the relationship of Bolivia's political party system with the indigenous peoples. In 1952, a joint revolt by the *Movimiento Nacionalista Revolucionario* (MNR) and the indigenous peoples brought the MNR to power. This changed Bolivia as the MNR introduced universal suffrage, sweeping land reform, and the nationalization of the mines in exchange for indigenous popular support (Gurr 2000, 179; Whitehead 2001, 26). In the coming years, the state-indigenous relationship became entrenched in a corporatist system in which parties provided incentives to indigenous

groups and labor organizations in exchange for votes (Yashar 2006, 191). The state also implemented policies that recognized the indigenous peoples as *campesinos*, or peasants, rather than ethnic minorities. The failure to offer protective measures for the indigenous peoples led to the emergence of labor unions as representatives of these minority groups (Yashar 2006, 192, Gurr 2000, 179).

The resulting relationship between the MNR and the labor unions implied the political parties were accountable to the unions and not the indigenous peoples (Barr 2005, 79). In 1964, a military coup overthrew the MNR administration. Following their ouster from power, the party then grew increasingly fragmented due to internal squabbles and therefore played a minimal role in Bolivian politics.<sup>3</sup> In 1974, the military regime massacred unarmed Quechua *campesinos* protesting the government's agricultural policies (Van Cott 2000, 128). With MNR sidelined due to in-fighting and the diminished trust in the military forces, a new intellectual movement, the *Tupaj Katari* (*Katarista*), emerged within the indigenous community. The *Kataristas* provided leadership to gain the political independence of the *Confederación Sindical Unica de Trabajadores Campesinos de Bolivia* (CSUTCB), a union of peasant organizations initially created by the government (Gurr 2000, 179).

In the early 1980s, the CSUTCB and the *Central Obrera Boliviana* (COB), the central labor union in Bolivia projected a joint movement to bridge ethnic and class issues together (Van Cott 2000, 128-129). With time, however, the *Katarista* movement grew increasingly fragmented as various ideological leaders broke ranks in hopes of steering the movement in their own direction (Van Cott 2000, 129). Additionally, the

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<sup>3</sup> The MNR experienced a political resurgence in the late 1980s and early 1990s

decline of the state-led economy led to the diminished power of labor unions as the privatization policies under neo-liberal economic policies left many Bolivians unemployed. The political decline of the unions implied that many Bolivians were left with few politically accountable leaders as the political parties were traditionally accountable to the labor unions and not the electorate (Domingo 2005, 1736; Barr 2005, 79).

Following the 1978 to 1985 re-transition to democracy, the military lost much of its political legitimacy and was essentially forced out of politics (Domingo 2005, 1736; Whitehead 2001, 28). Leftist parties, which had botched the management of the economy in the early 1980s under President Hernando Silas, also suffered tremendously (Whitehead 2001, 28). Among the leftist parties in Bolivia, the *Movimiento Izquierda Revolucionaria* (MIR), which had been isolated by the right-wing military regime under General Hugo Bánzer in the 1970s, distanced itself from its previous radical left-wing agenda. MIR's trend to the right culminated with a coalition alliance in the 1989 election with Bánzer's new right-wing party, *Acción Democrática Nacionalista* (ADN), thereby de-legitimizing MIR's leftist stances. The decreased leverage of the labor unions, the failure of the leftist parties, and the decline of the military created combined to create new opportunities for incorporation of new actors in Bolivian politics and for the reemergence of other political parties in the 1980s and 1990s (Whitehead 2001, 35).

By the late 1980s, the *Conciencia de Patria Movimiento Patriótico* (Condepa) and the *Nueva Fuerza Republicana* (NFR) emerged as new populist parties in Bolivia seeking to represent indigenous interests (Domingo 2005, 1737). Both parties sought support from the CSUTCB (Domingo 2005, 1737; Van Cott 2000, 129). Their populist



leadership, however, created opportunities for co-option into the coalition practices of Bolivian politics and so their position as being “anti-system” quickly faded (Domingo 2005, 1737). In this time, the MNR also reemerged as a more moderate leftist party and achieved electoral success in 1993.

The MNR recruited Victor Hugo Cardenas, a former *Katarista* leader, as the vice-presidential candidate for the Sánchez de Lozada ticket, representing a political success for the indigenous peoples of Bolivia. During this presidency, the constitution was amended to declare the country as a “multi-ethnic” and “pluri-cultural” state with the intent of transforming the historical relationship between the state and the indigenous peoples (Postero 2004, 180, 189). In 1994 Bolivia implemented the *La Ley de Participación Popular* (LPP) which decentralized the political system to incorporate indigenous communities (Gurr 2000, 180). In 1996, additional reform modified the electoral formula establishing a mixed electoral system which introduced uninominal, or single member district, seats in congress, opening opportunities for parties like MAS, which initially had a geographically concentrated constituency due to its outgrowth from the *cocalero* movement (Domingo 2005, 1732).

The incorporation of the indigenous peoples into the Bolivian political system has evolved with the economic and political changes of the state. As distinct ethnic groups in Bolivia, the indigenous peoples have grown increasingly powerful through their political organization through organizations such as the CSUTCB and involvement in groups like the COB. MAS is also an outgrowth of indigenous organizing. In the following section I elaborate on the origins of MAS first as a union movement of *cocaleros* and then its development as a political party. By understanding the historical context of the

relationships between political parties, labor organizations, and indigenous movements, we better explore the unprecedented electoral performance of MAS in the 2005 election.

### 2.3 Formation of MAS

The coca growers began their political mobilization during the 1978 to 1985 transition to democracy. Initially, they formed federations to oppose the government's policies regarding coca eradication. By 1990, the Chaparé region in the department of Cochabamba consisted of 160 local unions under the umbrella of 30 sub-federations, which comprise 5 federations. In 1988 the five federations formed a coordinating committee to send delegates to the 1987 CSUTCB congress. At this meeting, the Quechua leaders seized electoral control from the predominantly Aymara intellectuals (Van Cott 2006, 2). The most important member among the *cocaleros* was Evo Morales, who migrated to the Chaparé with his Aymara father and his Quechua mother (Van Cott 2006, 2). In 1992, the CSUTCB, under the control of the coca growers, moved to create the *Asamblea de la Soberanía de los Pueblos* (ASP) as a political instrument.

Morales and a competing Quechua leader emerged as the two leaders of the ASP and divided it into the ASP and Morales's IPSP (Van Cott 2005, 91-92; Van Cott 2006, 3). In the 1999 election, the IPSP faced registration problems and therefore was forced to sign under an already registered but defunct party, the *Izquierda Unida* (IU) and in 2002 the IPSP used the registration name of *Movimiento al Socialismo* (MAS) (Van Cott 2006, 3). As MAS grew in power, the traditional leftist parties were either de-legitimized or co-opted into the coalitional practices of Bolivian politics. The indigenusness of MAS, especially in the context of its indigenous leadership and outgrowth from indigenous interests, carries implications for the successful rise between 2002 and 2005. Scholars

have elaborated many ideas about the emergence and success of MAS in an indigenous context, which will be discussed in the next chapter.

#### *2.4 2002 and 2005 Presidential Elections*

The 2002 and 2005 presidential elections are the primary events examined in this analysis to understand the success of MAS. In the 2002 election, Morales competed against Gonzalo Sánchez de Lozada, the eventual winner, and Manfred Reyes Villa, a four-term mayor of Cochabamba. Sánchez de Lozada, a successful businessman, previously held the presidency between 1993 and 1997. Morales and Sánchez de Lozada received the largest shares of the votes with Morales earning a surprising 20.94% while Sánchez de Lozada receiving 22.46% of the national votes (*Cóрте Electoral Nacional*). According to Bolivian law, since none of the presidential candidates received more than 50% of the presidential votes, the members of Congress convened and selected the final winner. As such, the Bolivian legislature appointed Sánchez de Lozada as the winner of the 2002 presidential election.

In 2005, Morales again contested for the presidency against Jorge “Tuto” Quiroga. Quiroga initially served in the presidency between 2001 and 2002 after General Hugo Bánzer opted to step down for health reasons. Quiroga opted to form a new party, *Poder Democrático y Social* (PODEMOS), rather than run under the ADN party. PODEMOS, however, was effectively structured in the same manner and advocated the same conservative policies as ADN. The results of the 2005 election were substantially one-sided as Morales received 53.74% of the vote against Quiroga’s 28.59%, making Morales an unprecedented, outright winner of the presidency. This electoral success for Morales represented a success for indigenous peoples.

The elections of 2002 and 2005 highlight a change in Bolivian politics. As noted previously, most indigenous political activity was channeled through union and elite party mobilization rather than through indigenous political organization. The electoral performance of MAS in 2002 and success in 2005 solidified its presence in Bolivian politics. These performances also raise critical questions as to whether the vote patterns are related to the indigenesness of the Bolivian electorate. In the following chapter I evaluate the existing literature and theory examining the relationship between the indigenous peoples and the electoral performance of Evo Morales in the 2002 and 2005 presidential elections.

### Chapter 3: Review of Literature and Theory

Much research has been conducted on the nature of indigenous political movements in Bolivia. The electoral success of MAS in the 2002 and 2005 presidential elections in Bolivia raise questions regarding the source for these performances. Some scholars have argued that both socio-economic conditions and indigenouness have together served to spike the support MAS (Van Cott 2006, 181-182). The strong correlation between the indigenous peoples and socio-economic factors make it difficult to ascertain the source of MAS's electoral success. In this analysis, we examine Bolivia to better understand these relationships between parties like MAS and the electorate. The following sections will highlight the relevant factors that define the context in which MAS rose to power between 2002 and 2005.

#### *3.1 Indigenouness and Politics*

The electoral victory of MAS has marked a moment of significant change for Bolivian politics. Matthew Cleary argues that the victory of MAS is indicative of a leftist-wave that has taken hold in South America (Cleary 2006, 36). Using James Petras's definition for leftist parties as organizations seeking to decrease social inequalities, increase living standards, the reversal of privatization trends, and providing support to other socioeconomic factors such as public education and healthcare (2006, 280-281), it seems as though MAS falls under this category. But MAS can also be classified as an ethnic party, which is defined as:

...an organization authorized to compete in local or national elections; the majority of its leadership and membership identify themselves as belonging to a nondominant ethnic group, and its electoral platform includes demands and programs of an ethnic or cultural nature (Van Cott 2003, 3).

Supplementing this definition, ethnic parties are said to reflect ethnic divisions in society (Lipset 1981, 231). Van Cott employs “indigenous” for this definition in her analysis of the Latin American politics (2003, 3). MAS meet this definition if we, like Van Cott, and utilize the term “indigenous”. The party has articulated a wide array of goals designed to improve the quality of life for indigenous peoples. MAS also meet the second requirement of this definition as much of its leadership is indigenous. Third, while indigenous peoples constitute a large proportion of the Bolivian population, they are clearly in an inferior position in society as marked by their high levels of poverty and historical lack of political empowerment. Fourth, MAS has articulated demands centering on this notion of indigenusness. The following quote, from the MAS mission statement, highlights the importance of ethnicity to the party:

We have reached 500 years of the European presence and 176 years as a republic. In these 500 years, we have been dominated by a Western philosophy, a domination that has yet to reach any of its goals (“Movimiento al Socialismo”).<sup>4</sup>

MAS’s campaign addressed several indigenous interests. Leading up the 2005 election, MAS released its ten point plan<sup>5</sup> in which the party identified goals rooted in ethnicity in addition to plans addressing socio-economic issues. The party advocated for a constituent assembly to bring greater representation to the indigenous peoples in Bolivia (“Bolivian Opposition” 2005). Along these same lines, MAS promoted the redistribution of idle lands towards landless peoples, many of whom are indigenous, for agricultural and livestock purposes.

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<sup>4</sup> It should be noted that I have studied Spanish extensively as a second language, and any translation errors are therefore my own.

<sup>5</sup> See Appendix 1 for a complete list of the ten point plan

MAS's indigenous orientation, however, is not static as shown by their victory in 2005. With widespread support coming from their wide appeal to the Bolivian electorate (Albro 2005, 450; Domingo 2005, 1738; Postero and Zamosc 2004, 17-18), we must ask the question of whether or not the indigenous peoples were voting in response to their indigenouness or other factors like socio-economic conditions. To examine this we must understand the construction of social identities and the importance of saliency.

People appeal to different identities in different times depending on the context.

Mansbach and Ferguson state,

In the course of their lives, people are likely to recognize only a few of their traits as worthy of self-definition, and behavior of other communities may even promote new traits or the rediscovery or reconstruction of old ones (2004, 148).

This implies that the interactions across groups of people can increase the saliency of one's identity, like indigenouness, especially when these interactions are threatening. Threats towards an identity can increase the saliency of this identity (Lipset 1981, 204; Gurr and Huff 1994, 78). The tumultuous political conditions, beginning with the coca eradication policies in the late 1990s, may have triggered an internal recognition of ethnic importance among the indigenous peoples thereby causing a policy preference change in favor of MAS in 2002 and 2005 (Birbir and Van Cott 2004, 100; Yashar 2006, 198-199; Madrid 2005, 163, 166).

For this "ethnic trigger" to matter, we would require that indigenous voters act in support of a party defined along these ethnic lines (Echegaray 2005, 9). A prime example of this is the struggle over the coca leaf. The explicit attack on coca cultivation in the mid to late 1990s under Hugo Bánzer may have enticed many Quechua Indians to support MAS, a party that seeks to protect the coca crop. Since coca is also the source for

cocaine, *cocaleros* have come under significant pressure to cease their activities. The campaign against coca extended to Morales's bid for the presidency in 2002 when the American ambassador to Bolivia threatened aid reduction if Bolivians voted Morales into office. Coca, though a culturally important commodity for the indigenous peoples, is more importantly economically critical because of the high economic return to many indigenous farmers for cultivating this crop.<sup>6</sup> Other examples of threats against indigenous identity may be the Water War of 2000 in Cochabamba, the current water issues in El Alto, and the Gas War of 2003 throughout the country. The constant struggle over resources may be perceived as a threat to indigenous identity as these struggles have often placed essential resources, such as water, beyond the reach of the indigenous poor.

An indigenous shift would indicate that the indigenesness of one's identity was the most important factor in the voter's decision. For this shift to be a response to these economic factors, one would need to show that the socio-economic characteristics have influenced the actions of the Bolivian voters. To show this, we would need to identify the non-indigenous electorate in Bolivia and examine how their behavior differs from the behavior of the indigenous peoples. These two factors are not mutually exclusive as both the indigenous identity and the socio-economic conditions can concomitantly influence the behavior of a voter.

Accordingly, some have shown that voters instead give critical attention to candidate profiles, important contextual issues such as gas nationalization, and governmental performance on economic and non-economic matters (Echegaray 2005,

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<sup>6</sup> It is important to note that coca can be cultivated legally in some areas within the department of La Paz, but the response among coca growers has generally been tied to the Chaparé region in Cochabamba.



12). Morales and MAS also gained notoriety during the protests and road blocks between the elections in 2002 and 2005 addressing issues like gas nationalization and coca cultivation in an indigenous context. These protests have been framed as factors of economic justice and indigenous empowerment. In a *Washington Post* article on October 21, 2003, Carlos Uruieta, a painter and Aymara Indian, commented on the ousting of Sánchez de Lozada,

I feel that the Aymara nation has exerted itself finally and stood up for its rights. I feel that we are strong now and can never go back to being pushed around and ignored and neglected (Jeter 2003, A19).

In January of 2003, prior to the fall of Sánchez de Lozada, Felipe Quispe and Morales united to protest the government's coca eradication policies. These protests were significant because they united Quispe, an Aymara Indian, and Morales, representing the Quechua *cocaleros* ("Sucre Surrounded" 2005), two historically antagonistic actors. Introducing ethnic unity to the protests may have helped reinvigorate the "us versus them" mindset evident in the following quote by Quispe: "There is a racial battle between whites and indigenous people. It is high time for us (indigenous Bolivians) to take power, that the invaders return our territory" ("Sucre Surrounded" 2005). These events perhaps are, as Van Cott suggests, an expression of the indigenous identity (2006 181-182). The increasing importance of indigenous identity in Bolivia, therefore, must be scrutinized in light of the overwhelming victory of MAS in 2005 (Lazar and McNeish 2006, 160; Albro 2005, 449).

### *3.2 Economics, Geography, and Politics*

With the high correlation between the low quality of life indicators and indigenouness in Bolivia, scholars cannot help but speculate on the roots of indigenous

behavior. Seymour Martin Lipset argues that states with stronger economies tend to be more democratic (1981, 31). Bolivia has failed to achieve a high and sustained level of economic growth since its re-transition to democracy, which may underscore the reason for its political volatility (Whitehead 2001, 37-38). Gary Reich finds that highly unstable electoral systems correlate with volatile economies (2004, 247). We must consider the electoral performance of MAS to be a component of this political volatility, especially since the party's rise was so dramatic. To be sure of the sources of MAS's successful performance in the presidential elections, we must examine the structural factors.

To gain a complete understanding of the impacts of structural factors, we will need to examine three sets of variables. First, it we need to address socio-economic variables from the analysis. Conditions of poverty, inequality, unemployment, and poor education define the lives of many Bolivians, especially indigenous Bolivians. It is fairly evident no Bolivian government has been able to effectively remedy these conditions. Second, we must address involvement in sectors of the economy which can be treated as a proxy measure of union involvement. Labor unions can be quite powerful and in Bolivia their history is rich. Third, we need to assess the role of departmental variation. As previously noted, Bolivia's nine departments are diverse in demographics and in resources. These three sets of variables may together better explain the electoral performance of MAS in 2002 and in 2005, especially since these variables appear to highly correlate with indigenouness in Bolivia.

### *3.2.1 Socio-Economic Factors and Politics*

Morales's rhetoric denouncing the neo-liberal privatization schemes and his demands for nationalizing the gas industry may indicate that the driving forces behind the

electoral successes of MAS in 2002 and in 2005 were ultimately economic in nature and not indigenous. The economic liberalization policies, which were supposed to improve the Bolivian economy, served to increase the economic differences between dominant elites and the indigenous peoples (Gurr and Huff 1994, 78), and so we must be sure to include a measure of inequality as a possible explanatory variable.

The social inequality demonstrated through the discrimination towards indigenous Bolivians has steadily diminished with time. The Bolivian government has taken explicit measures to rectify this issue, like the constitutional amendment recognizing the indigenous peoples as ethnic minorities in the early 1990s. Economic inequality, however, remains rampant and Cleary believes that the underlying reason for the strong support for MAS-like parties in Latin America is the high level of economic inequality (2006, 37-38). Harmel and Robertson, however, counter this notion by finding that inequality does not appear to affect the emergence of left-of-center parties like MAS (1985, 514). With conflicting assertions with regards to inequality, it is critical that we do not disregard the possibility that this variable may have had on the Bolivian electorate. Similarly electoral volatility has also been shown to correlate with other socio-economic variables that are worth considering for this analysis.

Gross domestic product (GDP) per capita, among others, has been shown to be a significant variable in explaining electoral volatility<sup>7</sup> (Roberts and Wibbels 1999, 583). Poverty is similarly useful. Roberta Rice and Donna Lee Van Cott use a statistical analysis of sub-national units in several states in Latin America to find that both poverty

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<sup>7</sup> Electoral volatility is defined as "...the change in vote shares obtained by individual parties in a given political system across consecutive elections..." (Roberts and Wibbels 1999, 576)

and indigenous population are significant predictors of indigenous party success (2006, 725). Persistent poverty, inequality, and low rates of GDP per capita may explain the electoral volatility in Bolivia as voters continuously punish incumbent parties.<sup>8</sup> The explanatory power provided by poverty, inequality, and GDP per capita can be supplemented by variables such as employment and skills.

We can posit that Bolivians, especially indigenous peoples, may be more likely to rise up when lack of employment is combined with a lack of resources for livelihoods. They may be restricted from certain areas of employment, like the service sector, due to a lack of necessary skills. One of the biggest problems plaguing Bolivia, according to Morales, is the concentration of land ownership. The minimal access to land may reinforce the volatility caused by conditions of poverty. In light of MAS's advocacy of the redistribution of idle lands to indigenous peoples ("Bolivian Opposition" 2005), it is reasonable to assume such a pledge could entice a voter to switch his or her party allegiance. Problems arise when political parties are not aligned along ideological lines. With that, it may be difficult to generate an opinion of the party system through one's individual experience, and so we must take into account the employment levels by economic sectors.

### *3.2.2 Divisions by Economic Sector*

To exercise a right to vote requires knowledge of the party system. Parties should be delineated across clear ideological lines. This is not quite the case in Bolivia. Kenneth Roberts characterizes Bolivia's party system as one in which parties "...cut

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<sup>8</sup> It is worth noting that the Bolivian constitution prevents candidates from serving two consecutive terms. This does not mean that the same party could hold office in consecutive terms.

vertically across class lines...” (2002, 9). As examined earlier, Bolivian political parties have not aligned themselves along class lines. Their ideological boundaries are rather artificial and the parties have sustained their networks of support through corporatist practices (Roberts 2002, 9). In Bolivian politics, labor unions have historically played an important role serving as intermediaries between the Bolivian *campesinos* and the political parties. However, these unions declined in power with the economic collapse of the mid-1980s and the privatization schemes. This left many Bolivians, especially indigenous Bolivians, with little access to political representatives.

The proliferation of political activity in recent years seems to be a consequence of collapse in representation. These protests seem to have crossed economic sector lines as we frequently see protests that combine miners, farmers, and other laborers uniting behind a collective call for economic justice. MAS’s outgrowth of the *cocalero* movement, which is effectively a labor movement of sorts, may have a special appeal to the working class in Bolivia because of the party’s development from the ground up (Albro 2005, 438). This would allow MAS to operate differently than the other parties as it has appealed along a highly collinear class and ethnic line.

I believe that MAS derives most of its support from labor-intensive sectors of the economy, where there is often little stability or protection. Involvement in private sector and commercial sector is more likely to drive the vote for MAS down considering MAS’s preferences for centralized economic structures. Employment in the public sector may also drive the vote for MAS down. With a history of corruption, and the corporatist networks developed through the political parties, many Bolivian employees may feel an allegiance to the party in power. The emergence of MAS may be threatening because of

the implicit implication that MAS officials will favor their loyal friends. Thus, in the case of Bolivia, involvement in an economic sector can matter in elucidating a political line with MAS appealing to the labor and *campesino* communities.

### *3.2.3 Departmental Differences and Politics*

Departmental differences may also play a role in explaining MAS's electoral performance in 2002 and in 2005. The discovery of natural gas reserves in the late 1990s brought the promise of increased revenue for Bolivia, but these gas reserves are found only in Chuquisaca, Cochabamba, Santa Cruz, and Tarija, with the latter two departments occupying the highest concentration of reserves. Santa Cruz and Tarija, in addition to the pro-business Pando and El Beni, have led the fight for departmental autonomy. The argument here is they do not want to "foot the bill" for Bolivia.

Regional inequality also highlights a source for MAS's success. These four departments happen to have the lowest percentages of indigenous peoples, who typically live under higher levels of poverty, unemployment, and other characteristics detrimental the quality of life. The following map shows the departments considered to be a part of the western highlands (Chuquisaca, Cochabamba, La Paz, Oruro, and Potosi) to have the highest proportions of indigenous peoples as marked by the darker municipalities.

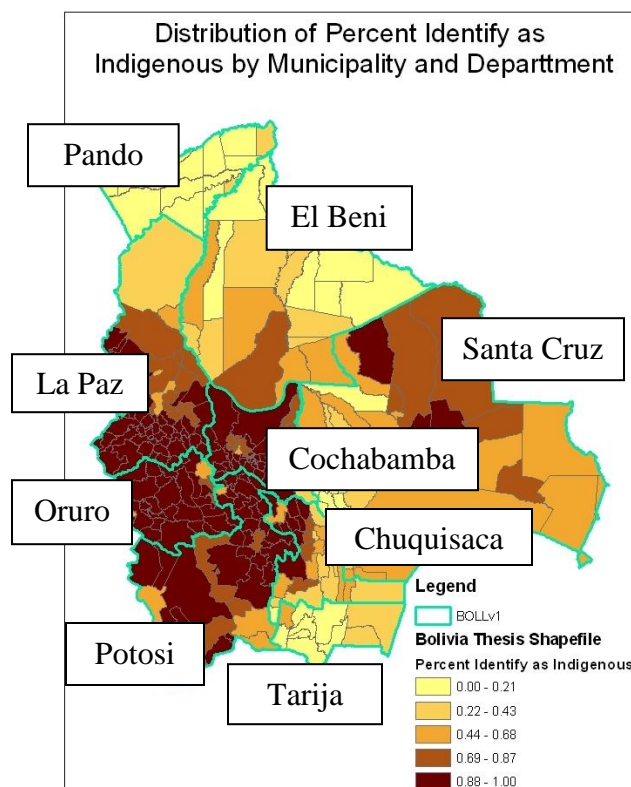


Figure 1. Distribution of Proportion of Indigenous Peoples by Department in Bolivia

It would be logical, therefore, to presume that an indigenous Bolivian in La Paz would prefer the nationalization of the gas industry for an equitable distribution of the gas revenues. The political support expressed for nationalization of the gas reserves, which may imply support for MAS, is effectively a response to the differences between the departments. A person in La Paz may see the gas reserves in Santa Cruz as belonging to Bolivia, whereas a resident of Santa Cruz sees the gas as their own. Perceptions of the issues are not standard across any state or polity. The characteristics of each department provide a context to define the voters' perception of the important issues in Bolivia.

Ultimately, it is expected that indigenusness will have a minimal effect upon the propensity to vote for MAS in 2002 and 2005. Indigenusness and the saliency of the ethnic identity in Bolivia are responses to the persistent socio-economic conditions and increased divide between the nine departments in Bolivia. I expect that the socio-economic indicators highlighting conditions such as poverty, inequality, and illiteracy, will demonstrate a positive relationship with the votes for MAS in the 2002 and 2005 election. I also believe that involvement in economic sectors will have a significant relationship with the votes for MAS in 2002 and in 2005 because behavioral alignment along such patterns is not rooted in the political culture of Bolivia. I think departmental variation is especially critical in explaining the electoral performance of MAS in 2002 and in 2005. The variances in the nine departments provide a local context for broader issues that can have direct implications on voter behavior.



## Chapter 4: Methodology

This analysis examines the relationship between indigenouness and the 2002 and 2005 presidential elections. This analysis has thus far explored the relationship between the indigenous peoples and the emergence of Morales's party. The next step is to empirically test this relationship to determine whether indigenouness matters in explaining the propensity to vote for MAS.

To test these relationships, I collected election data from the *Cóрте Nacional Electoral* (CNE), the Bolivian electoral agency, for the 2002 and 2005 elections. I also gathered demographic data, individual-level socio-economic data, employment by sector data, and departmental data from the 2000 census and other relevant reports from the *Instituto Nacional Estadistical* (INE), Bolivia's head statistical agency. I utilize an OLS regression treating the change in MAS support as the dependent variable and the demographic, socio-economic, associational, and geography as the independent variables.

I will note that while I have structured this analysis around individual behavior, my approach to testing the questions occurs at an aggregated level. This will introduce a level of error into my analysis, but since individual level data is difficult to come by, I must rely upon utilizing the municipal level data. To be sure of my results, I would need to supplements this analysis with exhaustive interviews with Bolivians, indigenous and non-indigenous alike. This analysis however provides initial insight into the perceived relationship between indigenous peoples and the electoral performance of Morales and generates future research questions. The remainder of this chapter will cover how I proceeded with the data collection and operationalized the independent variables.

#### 4.1 Election Data Collection

I collected election data from the (CNE) for the 2002 and 2005 elections.<sup>9</sup> To do this, I linked to the 2005 election results webpage and selected *Resultados por area geográfica* (Results by Geographical Area). I collected the election data at the *Canton*<sup>10</sup> level of aggregation, as shown in Figure 2 below, to match the level of aggregation of the majority of the socio-economic variables largely provided by the Bolivian census of 2000.

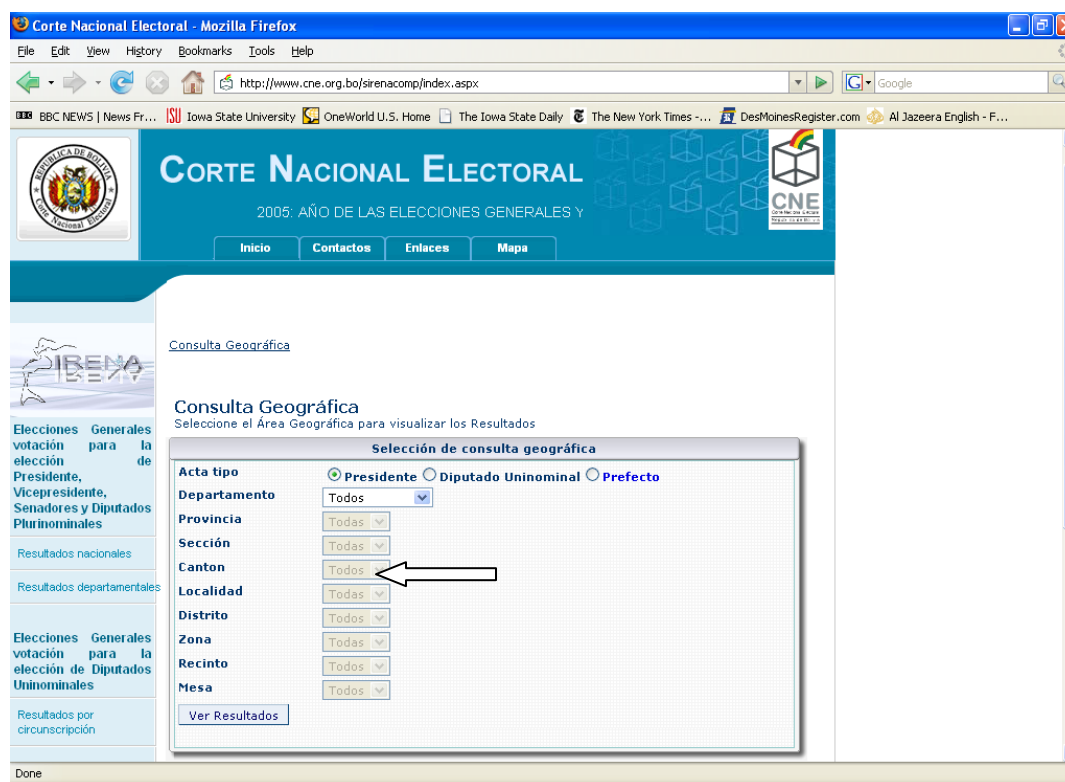


Figure 2. Screen shot of the CNE Webpage highlighting the Canton Level of Aggregation

<sup>9</sup> The election results were collected with the intention of highlighting the success of the *Movimiento al Socialismo* at the municipal level. To collect the 2002 data, I visited CNE homepage ([www.cne.org.bo](http://www.cne.org.bo)) and linked to the 2002 results webpage. The 2002 raw election results for MAS were available for collection by table, from smallest to largest, for eight of the nine departments. These results were copied and pasted individually into a Microsoft Excel dataset. The ninth department, Santa Cruz, was not available by department and so this data had to be collected by using the *circunscripciones* as the unit of analysis. The *circunscripciones* 50 to 60 were the units that pertained to Santa Cruz, which allowed me to collect the table results for the tables associated with the department.

<sup>10</sup> Referred to as municipalities in the rest of the analysis

The raw 2005 votes for MAS were collected and then transformed into percentages of the total vote of the municipality.

I next determined the geographic information for the 2002 election results, which were only provided at the *mesa* level as highlighted in *Figure 3*<sup>11</sup>. To accomplish this, I used the webpage highlighted in *Figure 3* to pool the *mesas* based upon like geography. This allowed for a cross-election analysis.

http://www.cne.org.bo - CNE - Resultados Nacionales - Mozilla Firefox

Corte Nacional Electoral      Resultados Oficiales Elecciones 2002

[ver detalle por mesa](#)      [ver detalle por circunscripción](#)      [ver detalle por departamento](#)

RESULTADOS PRELIMINARES del Departamento de Chuquisaca

Porcentajes y totales finales obtenidos por los Partidos Políticos a nivel nacional (Votos para Presidente, Vicepresidente, Senadores y Diputados Plurinominales) (ACTA 1)  
[Ver Acta 2 \(uninominales\)](#)

Detalle de mesas :

Nº de mesa	CONDEPA	UCS	NFR	MCC	ADN	MIR	MAS	MIP	MNR	PS	LJ	blancos	nulos	Estado
00001	1	4	42	0	18	22	2	1	60	0	1	1	1	regist.
00002	0	7	41	1	19	22	13	0	66	1	4	2	5	regist.
00003	0	14	20	1	11	17	4	0	58	0	3	0	3	regist.
00004	0	4	54	4	15	17	10	0	73	0	3	3	4	regist.
00005	0	5	60	4	20	26	5	0	49	1	4	0	8	regist.
00006	0	7	41	2	16	19	12	1	68	0	3	4	3	regist.
00007	0	10	43	1	21	23	4	0	63	1	4	1	5	regist.
00008	1	8	59	3	27	40	12	0	75	1	6	0	2	regist.
00009	0	14	75	2	28	31	13	0	67	1	7	3	3	regist.
00010	0	19	45	1	25	26	10	1	88	0	9	1	1	regist.
00011	0	8	36	0	4	24	6	0	69	0	3	2	1	regist.

Transferring data from www.cne.org.bo...

Figure 3. Screen shot of the 2002 Election Results by Mesa

#### 4.2 Dependent Variables

The dependent variables in this analysis are the MAS votes in 2002 and in 2005. To operationalize this variable, I calculated the proportion of MAS votes at the municipal level for each election.

$$\% \text{ MAS 2005} = \text{Votes for MAS at the Municipal Level} / \text{Total Votes in the Municipality}$$

$$\% \text{ MAS 2002} = \text{Votes for MAS at the Municipal Level} / \text{Total Votes for the Municipality}$$

<sup>11</sup> *Mesa* is the smallest level of aggregation for the election results. In this case, *mesa* would translate to voting booth

I elected to treat the dependent variables as a proportion to allow for a more uniform analysis of the results across Bolivia. If the regression utilized the raw number of votes for MAS, we would capture the size of the different municipalities, which is something I wish to avoid in this analysis.

#### *4.3 Independent Variables<sup>12</sup>*

The independent variables for this analysis were determined through an exhaustive literature review examining the indigenous movements and emergence of MAS in Bolivia. This group of variables is aggregated into four separate groups:

*IV1: Demographics*

*IV2: Individual-level Socio-economic Variables*

*IV3: Employment by Sector*

*IV4: Departmental Variables*

These variables represent four areas of influence. The first variable is dynamic characteristic of political actors. The second variable describes the social and economic conditions that may affect the behavior of political actors. The third variable is a pseudo measure of association, which allows for speculation on possible bloc behavior through labor groups. The last variable is the highest level of aggregation which allows us to control for regional differences and spatial questions regarding shared border.

Most of the data collected for the independent variables came from the 2000 census reports published in 2001. These reports, published by the INE, provide a comprehensive overview of demographic, social, and economic characteristics for the municipalities in Bolivia's nine departments. Several of the variables were collected

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<sup>12</sup> For expanded descriptions of the independent variables, see Appendix 2

from other statistical reports produced by published the INE and one variable, presence of coca cultivation, was determined through a report published by the United Nations.

These data create an opportunity for an empirical analysis of the relationship between MAS support and indigenous identity.

#### *4.3.1 Demographics*

I utilize populations identifying as indigenous and as not-indigenous at the municipal level to operationalize the demographic variable. I include both measures for comparison purposes under the belief that similar behavior by both groups indicate that indigenousness does not matter. The data available for people who identify as indigenous and as not-indigenous was available for a population of 4 years of age and up and 15 years of age and up. I utilized the 15+ years variable to come as close as possible to capturing the voting populace, which starts at 18 years of age. While this may introduce some error, it is the closest measure available.

I measure indigenousness in a municipality as the proportion of indigenous peoples. The proportion of indigenous peoples at the municipal level is calculated as

$$\% \text{ Indigenous} = (\text{Number of People 15 Years of Age and Older who Identify as Indigenous}) / (\text{Total Number of Residents 15 Years of Age and Older in the Municipality})$$

I employ the same formula for non-indigenous population. Data is also available for the disaggregated indigenous populations, and by utilizing the formula above we can additionally test for the relationship between the distinct groups in Bolivia and the propensity to vote for MAS. These proportional variables allow for the standardization of indigenousness and non-indigenous across the municipalities.

#### 4.3.2 Structural Variables

It is critical we control for the set of variables associated with socio-economic conditions when testing the relationship between indigenouness and the electoral performance of MAS. I operationalize this variable at the municipal level in several ways. I first control for percent poverty, which is measured as the percent of the population below the poverty line. MAS has presented itself as a leftist party and there is a relatively strong correlation between poverty and indigenous peoples, therefore, it is important that we control for poverty in this analysis. Second, I control for percent illiteracy, which measures the prevalence of illiteracy in each municipality. I treat this as a proxy measure of skills, which can carry implications in terms of employment opportunities. Third, I control for percent unemployment for each municipality. This is measured as the working population, designated at ten years of age per the Bolivian census, and is looking for work. Fourth, I control for lack of home ownership, which is the proportion of the residents in the municipality who do not own a home. Home ownership is an attempt to capture status. Fifth, I included GDP per capita, measured at the municipal level as measures of economic status. Finally, I include a GINI coefficient as a measure of inequality for each municipality.

I operationalize percent employment by sector at the municipal level by including several areas of the economy, including agriculture, mining, industry, public utilities, commercial sector, public sector, the transportation sector, and the construction sector. I also incorporate coca cultivation into this. The coca crop plays an integral role in the livelihoods of many indigenous Bolivians, and is a critical policy issue for MAS. The municipalities where coca is cultivated, as determined from the *United Nations*

*Office on Drugs and Crime: Bolivia Coca Cultivation Survey*, were coded with a dummy variable. It is critical to control for what may be construed as a labor response in favor of MAS, especially considering the contextual importance of labor movements in Bolivia.

In this last set of variables, I employ several controls for the regional differences. I first operationalized this by coding dummy variables for each of the nine departments to control for regional variation in terms of foreign direct investment, borders, gas reserves and other sources of variation. This data should allow for a clear and coherent analysis of the 2002 and 2005 presidential elections. The data available for the independent variables is slightly limiting since much of it measures information collected back in 2000, prior to both elections. However, I feel that it is safe to say that Bolivia has not changed significantly in the span of five years, allowing for a safe and reliable analysis.

## Chapter 5: Results and Discussion

The main purpose of this analysis was to examine the relationship between indigenusness and MAS votes in the 2002 and the 2005 elections. MAS's surprise performance in the 2002 election and unprecedented victory in 2005 suggest that MAS is special or unique to Bolivian politics. From these two elections, I asked one primary and three supplemental questions regarding the relationship between MAS's electoral performance in 2002 and 2005. The primary question examines the MAS's performance and its relation to indigenusness. I also examine the party's performance and its relationship with socio-economic indicators, involvement in economic sectors, and departmental variation. To test the hypotheses outlined in Chapter 1, I conducted several regressions utilizing the aforementioned variables. Overall, the results support the notion that indigenusness *does not* increase the likelihood of a vote for MAS.

In the first regression, I first examine the relationship between indigenusness and MAS votes in 2002 and again in the 2005 elections and second between MAS performance and socio-economic indicators, involvement in economic sectors, and departmental variation. In the first sets of regressions, I use Percent Identify as Indigenous and Percent Do Not Identify as Indigenous to examine the differences in the indigenous and non-indigenous behavior. I employ the socio-economic variables, percent involvement by each economic sector and the departmental dummy variables as control variables. In my second regression, I switch the measure of the involvement by economic sector from a proportional measure to a raw measure. In my third and fourth regressions I use a disaggregated measure of indigenusness by employing Percent Identify as Aymara, Percent Identify as Quechua, and Percent Identify as Other, in



addition to Percent Do Not Identify as Indigenous for the demographic variables. The difference between the third and fourth regressions is the same difference utilized between the first and second regressions. In all four of the regressions I elect to drop the department of Pando, which has the smallest proportion of indigenous peoples, to allow for the comparison between the indigenous and non-indigenous populations. The following discussion is structured around the hypotheses postulated above. I will discuss the regression analyses for each regression, the decision to be made on the hypothesis, and the implications for the results.<sup>13</sup>

### 5.1 Hypothesis 1

The first hypothesis stated: *There is no relationship between the proportions of indigenous peoples in a municipality and the votes for MAS in 2002 and 2005.* To test this, I employed indigenousness as an aggregate measure and as a disaggregated measure at the municipal level. In the first and second regressions I treat indigenous as an aggregate variable. In the first regression, Percent Identify as Indigenous performs the same way as Percent Do Not Identify as Indigenous for both elections. Both variables show up as positive for both elections, but fail to show up as statistically significant ( $p < 0.05$ ). In the second regression, I find the same results. Percent Identify as Indigenous and Percent Do Not Identify as Indigenous both came out to be positive and statistically insignificant ( $p < 0.05$ ). In the third regression, I disaggregate the Percent Identify as Indigenous variable to Percent Aymara, Percent Quechua, and Percent Other. The demographic variables continue to be insignificant ( $p < 0.05$ ). All the variables were positive in their result. Percent Aymara and Percent Quechua were more significant than

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<sup>13</sup> The regression outputs are attached in Appendices 3, 4, 5, and 6

Percent Other and Percent Do Not Identify as Indigenous in both elections, but were not statistically significant. In the fourth regression, I find the disaggregated demographic variables to be positive, but still statistically insignificant.

	Model 1	Model 1	Model 2	Model 2	Model 3	Model 3	Model 4	Model 4
	2005	2002	2005	2002	2005	2002	2005	2002
<i>%ID as</i>	.208(.332)	.131 (.439)	.242 (.268)	.0969 (.578)				
<i>Indigenous</i>								
<i>%ID as Non</i>	.146 (.464)	.083 (.599)	.181 (.372)	.0283 (.861)	.232 (.250)	.082	.152	.106
<i>Indigenous</i>						(.611)	(.444)	(.503)
<i>%Aymara</i>					.434 (.055)	.228	.344	.378
						(.204)	(.118)	(.171)
<i>%Quechua</i>					.394 (.085)	.252	.319	.264
						(.168)	(.157)	(.138)
<i>%Other</i>					.156 (.473)	.0403	.075	.033
						(.816)	(.729)	(.842)
<i>Rsquare</i>	.426	.493	.427	.489	0.45	.50	0.44	0.51
<i>N</i>	311	313	311	313	311	313	311	313

Table 1. Results for Tests on Indigenusness

The results of the regressions therefore suggests that indigenusness does not affect the propensity to vote for MAS in 2002 and 2005 any differently than the population that does not identify as indigenous. This finding suggests that another story needs to be told to explain the dramatic ascension of MAS, first in 2002 and then in 2005. The next three hypotheses test for this and the associated results may shed light on the real source of this electoral rise.

## 5.2 Hypothesis 2

Hypothesis 2 stated: *There is no relationship between the socio-economic conditions pointing to a lower quality of life in a municipality and the votes for MAS in*

2002 and 2005. When testing for the first hypothesis, I incorporated several socio-economic control variables. I monitored the interaction of these variables through the four regressions conducted. In the first regression, only Percent illiteracy shows up as statistically significant (0.234,  $p < 0.05$ ) in 2002. None of the other socio-economic variables show up as statistically significant. Surprisingly, Inequality generates a negative coefficient in both the 2002 and the 2005 elections. In the second regression, none of the socio-economic variables came up as statistically significant ( $p < 0.05$ ) for either election. Inequality continued to have a negative coefficient in both elections. In the third regression, none of the socio-economic control variables show up as statistically significant ( $p < 0.05$ ) for either election. Inequality continued to have a negative coefficient. In the 2002 election, GDP per capita also had a negative coefficient. In the last regression, none of the socio-economic variables showed up as statistically significant ( $p < 0.05$ ). Inequality continued to have a negative coefficient. GDP per capita, like the third regression, had a negative coefficient for the 2002 election.

The failures of the socio-economic variables to show up as statistically significant and so we fail to reject the null hypothesis that higher levels would generate higher levels of MAS support. This portion of the story is intriguing as it defies the expectation of voters acting upon their socio-economic status. Thus far, we have failed to explain the possible sources of MAS's electoral success in 2002 and in 2005.

### 5.3 Hypothesis 3

The third hypothesis states: *There is no relationship between employment in a sector of the economy in a municipality and the votes for MAS in 2002 and 2005.* In the first regression, we only find one variable, Percent Involved in Construction, to be

statistically significant ( $-.643$ ,  $p < 0.01$ ), albeit in a negative direction. Percent Mining, Percent Industry, Percent Public Utilities, Percent Construction, Percent Commercial, and Percent Public Sector were all found to have negative coefficients in either 2005. Only Percent Construction and Percent Public Sector had negative coefficients in 2002. In the second regression, none of the variables, measured as the total involvement in the sector of the economy, came up as statistically significant ( $p < 0.05$ ). Total Mining (2002), Total Industry (2002, 2005), Total Public Utilities (2005), Total Construction (2002, 2005), and Total Public Sector (2002, 2005) were found to have negative coefficients. In the third regression, utilizing the same measurement of the variables as regression two, we continue to find none of the variables as statistically significant. Many of the same variables generated the same coefficients as the previous regressions. In the fourth regression, we again find Percent Construction to be statistically significant ( $-.699$ ,  $p < 0.01$ ), albeit in a negative direction. None of the other variables were statistically significant ( $p < 0.05$ ). When treating Coca as an economic sector variable, we find that it comes up statistically significant in all four regressions in the 2002 election ( $p < .000$ ), but fails to come up statistically significant in 2005.

Evaluating this hypothesis, then, we fail to reject the null hypothesis.

Involvement in an economic sector, labor intensive or not, does not appear to affect the tendency to vote for MAS in the 2002 election or in the 2005 election. The next section discusses the results pertaining to the fourth hypothesis.

#### *5.4 Hypothesis 4*

The fourth hypothesis states: *There is no relationship between the location by department of voters and the votes for MAS in 2002 and 2005.* This variable appears to

have an effect upon the propensity to vote for MAS in the 2002 and 2005 elections. In the first regression, Cochabamba (0.273,  $p < .000$ ) and Potosi (.204,  $p < 0.01$ ) come up as positive and significant for the 2002 election. In 2005, Chuquisaca (.238,  $p < 0.05$ ), Cochabamba (.306,  $p < .000$ ), La Paz (.228,  $p < 0.01$ ), Oruro (.252,  $p < 0.01$ ), and Potosi (.247,  $p < 0.01$ ) all show up as positive and statistically significant. Among the remaining departments, El Beni and Tarija had a negative coefficient in the 2002 and 2005 elections.

Regression two also shows Potosi (.018,  $p < 0.05$ ) and Cochabamba (.236,  $p < 0.000$ ) to be positive and significant in the 2002 election. In the 2005 election, we find the Chuquisaca (.230,  $p < 0.05$ ), Cochabamba (.304,  $p < .000$ ), La Paz (.219,  $p < 0.01$ ), Oruro (.240,  $p < 0.01$ ), and Potosi (.24,  $p < 0.01$ ) to be positive and significant. El Beni and Tarija both had negative coefficients in 2002 and in 2005. Santa Cruz and La Paz also generated negative coefficients for the 2002 elections. In the third regression, we see a decrease in the number of significant departments. Only Cochabamba comes up both positive and significant in the 2002 and 2005 elections. El Beni and Tarija continue to generate negative coefficients in both elections. Chuquisaca, La Paz and Santa Cruz also generate negative coefficients in 2002. In the fourth regression, we again see Cochabamba come up significant in the 2002 elections (0.195,  $p < 0.01$ ), but not in the 2005 elections. Chuquisaca (.204,  $p < 0.05$ ) is the only department to come up significant in the 2005 election. El Beni and Tarija continue to generate negative coefficients across both elections.

Based on these regression results, we can reject the null hypothesis. The variation between departments appears to have made a difference in the tendency of Bolivians to

vote for MAS. We consistently saw Cochabamba come up as statistically significant. We also saw El Beni and Tarija generate negative coefficients. Although they are not statistically significant, the negative coefficient may be a telling sign that something deeper is going on within the department. In the first regression, we saw a clear divide between the departments along what I described earlier as the western highlands and eastern lowlands. The central concern of this analysis, however, was to determine the relationship between MAS votes in 2002 and in 2005 and indigenouness.

### *5.5 Robustness Tests*

These aggregate level regressions suggest that indigenouness does not seem to matter in voting for MAS when compared to the non-indigenous population. Before accepting these results, I conducted several additional regressions at the national level and for the nine departments. In the first set of robustness tests, I run Percent Identify as Indigenous, Percent Do Not Identify as Indigenous, the socio-economic indicators, and involvement by economic sector for each of the nine departments.<sup>14</sup> The results, found in Appendix 7, support the idea that indigenouness does not seem to affect the propensity to vote for Morales in either the 2002 or the 2005 presidential elections. In none of the nine departments do Percent Identify as Indigenous or Percent Do Not Identify as Indigenous come up as statistically significant. In the second test, I conduct a similar analysis but disaggregate the indigenous variable into Percent Quechua, Percent Aymara, and Percent Other. Upon disaggregating this variable we find that indigenouness appears to matter in a few of the departments.<sup>15</sup> In Cochabamba, Percent Quechua (1.18,

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<sup>14</sup> The regression output for the nine departments is found in Appendix 7

<sup>15</sup> See Appendix 8 for these complete results

$p < 0.01$  in 2005; 1.01,  $p < 0.05$  in 2002) is significant in both the 2005 and 2002 presidential elections. In Santa Cruz, Percent Quechua is also significant in the 2005 (0.55,  $p < 0.05$ ) and the 2002 (0.71,  $p < 0.001$ ) presidential elections. The only other department where indigenouness comes up significant is in Tarija where both Percent Aymara (0.33,  $p < 0.001$  in 2005; 0.19,  $p < 0.001$  in 2002) and Percent Quechua (0.39,  $p < 0.001$  in 2005; 0.41,  $p < 0.001$  in 2002) come up as being significant. These results immediately force us to question the results found in Appendices 3, 4, 5, and 6. To further test for robustness, I conduct six more regressions with three operationalizing the demographic variable as Percent Identify as Indigenous and the second three disaggregating the indigenous variable into Percent Aymara, Percent Quechua, and Percent Other. I also drop Percent Do Not Identify as Indigenous and include all nine departments which differ from the initial four regressions.

In these regressions I employ different combinations of the socio-economic variables to reduce the high collinearity introduced by utilizing all of the socio-economic variables together. In the first regressions, found Appendix 9a and 9b, I utilize Percent No Home Ownership, Percent Employment, and Percent Poverty. I find that Percent Identify as Indigenous does not come up as significant. However, when I disaggregate this into the three indigenous groups both Percent Quechua (0.196,  $p < 0.05$ ) and Percent Aymara (0.189,  $p < 0.05$ ) show up significant in 2005. In 2002, only Percent Quechua (0.171,  $p < 0.05$ ) shows up statistically significant.<sup>16</sup> Interestingly, Percent Other has a negative coefficient for both the 2002 and 2005 elections.

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<sup>16</sup> The results for this regression are found in Appendix 9b

In the second set of regressions, found in Appendix 10a and 10b, I add Inequality to the four socio-economic measures in the previous two regressions. In the first regression, Percent Identify as Indigenous fails to come up as statistically significant. In the second regression, however, Percent Quechua (0.196,  $p < 0.05$ ) and Percent Aymara (0.189,  $p < 0.05$ ) are significant in the 2005 election, and Percent Quechua (0.171,  $p < 0.05$ ) is significant in the 2002 election. In both of these regressions, we again find that Percent Other has a negative coefficient for the 2002 and 2005 elections.

In the third set of regressions, found in Appendices 11a and 11b, I only utilize Percent Employment and Inequality in addition to all the economic sector variables and all nine departments. In the first regression, Percent Identify as Indigenous fails to show up as statistically significant. In the second regression, however, Percent Aymara (0.191,  $p < 0.05$ ) is significant in 2005 but only Percent Quechua (0.16,  $p < 0.05$ ) is significant in 2002. Percent Other again has a negative coefficient.

The findings offer support for the initial hypothesis that indigenusness does not increase the propensity for MAS votes. In all nine departments, Percent Identify as Indigenous and Percent do Not Identify as Indigenous performed in a similar manner. When disaggregating the indigenous variable, we find it is only significant in La Paz, Tarija, and Santa Cruz. In the additional robustness tests I find that Percent Identify as Indigenous fails to show up as significant. Percent Aymara and Percent Quechua, however, do show up as statistically significant in several regressions and Percent Other, though not significant, has a negative coefficient. These regressions have shed light on the indigenusness and its relationship to the MAS votes in the 2002 and 2005 elections.



The mixed results generated from the above regressions highlight the need for an analysis and discussion of the results and for future research.

## Chapter 6: Conclusion and Future Research

This analysis has discussed the role of indigenusness and the propensity to vote for MAS in the 2002 and 2005 presidential elections. The results suggest that the relationship between the indigenous peoples and the electoral performance of Morales and MAS is not as clear as initially believed. I additionally find that socio-economic indicators do not explain political behavior in a way that would be expected. We find little evidence that involvement in an economic sector, aside from coca, generates higher levels of support for MAS in 2002 and 2005. Several departments consistently showed up as statistically significant, indicating that departmental variation can generate different levels of support for MAS.

The failure of indigenusness to show up statistically significant is an important finding. The presumption that the movement to elect Evo Morales was a predominantly indigenusness has been challenged by the results. When treated as a single demographic, indigenusness does not seem to affect the propensity to vote for MAS. When I disaggregate the results, however, the differences between the indigenous groups become apparent. These differing results should not be surprising as Bolivia's indigenous groups are ethnically and geographically distinct.

The following table highlights the geographical concentration of the indigenous peoples.

Department	%Quechua	%Aymara	%Other
Chuquisaca	0.61	0.01	0.03
Cochabamba	0.60	0.06	0.01
El Beni	0.03	0.04	0.25

<b>La Paz</b>	0.08	0.68	0.01
<b>Oruro</b>	0.35	0.37	0.01
<b>Pando</b>	0.04	0.05	0.07
<b>Potosi</b>	0.77	0.06	0.004
<b>Santa Cruz</b>	0.17	0.04	0.17
<b>Tarija</b>	0.12	0.03	0.05

Table 2. Percent Indigenous by Department

As we can see above, the Quechua tend to dominate Chuquisaca, Cochabamba, Oruro, and Potosi whereas the Aymara tend to be concentrated in La Paz and Oruro. The remaining indigenous groups are typically concentrated in the departments of El Beni and Santa Cruz. When we examine the robustness tests examining the nine departments with a disaggregated indigenous variable, we find that indigenousness appears to matter in Cochabamba, Tarija, and Santa Cruz. In Cochabamba, we can expect the Quechua to vote for MAS with greater frequency due to MAS's roots in the department. The results in Tarija and Santa Cruz, however, are surprising. With the highest concentration of indigenous peoples at 17% in Santa Cruz, we can say that in comparison to the departments with high concentrations of indigenous peoples, these two departments stand out for their results. This may be explained by a variety of factors. I do not believe, however, that it is explained by an increased saliency in indigenous identity. El Beni and Pando have smaller indigenous populations yet failed to show up statistically significant. This result may perhaps be explained the several geographical factors that are discussed below.

The results also suggest that the idea that the socio-economic variables and employment by economic sector were conflated with the indigenousness variable appears to misleading. It was somewhat surprising that the socio-economic factors and employment by economic sector did not show up statistically significant, as I had initially predicted. Intuitively, one would expect that a poor Bolivian would vote for a leftist leader, such as Morales. Upon closer examination, we can see why the results that did turn up are not surprising. The following Table highlights the distribution of poverty throughout Bolivia's nine departments.

Department	Percent Poverty
Chuquisaca	82.4%
Cochabamba	67.7%
El Beni	74.4%
La Paz	73.2%
Oruro	72.8%
Pando	65%
Potosi	83.1%
Santa Cruz	61.7%
Tarija	71.3%

Table 3. Percent Poverty by Department

As we see above, Cochabamba, the perceived “home” of MAS, has a lower poverty level of Tarija and El Beni, both strong anti-MAS departments. There is no clear pattern between the proportion of the population below the poverty level and the support for MAS at the departmental levels. Consequently, socio-economic conditions of Bolivia may not drive a widespread response in favor of a candidate like Morales. The

symptomatic nature of socio-economic conditions indicates the need for policies to remedy these conditions. The candidate that provides a new plan of action, like Morales's desire to nationalize the gas industry, may be more likely to win over new voters, but poor socio-economic conditions, while they can be debilitating, are not necessarily uniting. Poverty, for example, is widespread in Bolivia, as we see in Table 3 above, but we do not see a "poverty bloc" acting in unison over economic and policy issues. Poverty is a problem needs to be addressed but differences arise over how this should be done. These differences introduce politics into the sphere of engagement over the socio-economic conditions. Different groups will support different policies for the solutions to elevating the quality of life. Poverty and other like socio-economic conditions, by themselves, are not sufficient for explaining the propensity to vote for MAS.

The second set of variables, employment by economic sector, also failed to show up as statistically significant. Treating this as a proxy measure for association, I am slightly surprised that none of the economic sectors showed up as statistically significant. Employment in any economic sector does not necessarily imply political activity that addresses the needs and concerns of that sector. To aggregate a sector and treat it as a homogenous variable is dangerous because of competing ideologies. As we saw with the socio-economic variables, many different beliefs about the government's approach to the economy will affect participants in different economic sectors in different ways. Perhaps a better variable to include would have been union membership at the municipal level. Unions are political tools of economic sectors whereby workers can politically advance

their causes. Union membership and employment by sector may not capture the same variable, and so it is important we are cautious of the results.

The statistical significance of the departmental variables was to be expected because of the variation found between the departments. The story told by this set of variables, however, is compelling. The multicultural and structural reforms of the 1990s created opportunities for geographically concentrated groups to contend for political power (Albro 2005, 435). The rise of MAS prior to the 2002 election exemplifies this as the party rose out of the Quechua *cocalero* movement (Albro 2005, 436-438) concentrated in Cochabamba. This perhaps explains the regularity in which both coca and Cochabamba would show up as statistically significant. One cannot deny the centrality of coca to MAS and Morales's campaigns, especially in the 2002 election. The concentration of Quechua *cocaleros*, however, is not a sufficient explanation for explaining the ascension of MAS out of Cochabamba. The variation among departments transcends concentrations of ethnic groups. The nine departments seem to operate in two blocs, based upon the pattern of votes given for MAS. It is critical we address these bloc variations and the relationship to the indigenous peoples.

One way to examine departmental variation is to consider geography and borders. Bolivia has a historically antagonistic relationship with Chile dating back to the Chaco War in the 1800s. Bolivia erupted in protests when Sánchez de Lozada announced the exportation of Bolivian gas through Chile. When examining the relationship between a common border with Chile and MAS votes, I find the correlation to increase between the 2002 and 2005 election and proximity to Chile, as highlighted in Table 4 below.

	<b>Chile</b>	<b>FDI</b>	<b>Gas</b>
<b>2002 MAS</b>	0.10	-0.22	-0.14
<b>2005 MAS</b>	0.31	-0.22	-0.28

Table 4. Correlation Plots for MAS Votes

This correlation jump may tell us several things. First, following the decision to export gas through Chile, many Bolivians near the Chilean border changed their policy preferences to support a party that would not execute such a policy. It could also mean that gas was so central to the 2005 Bolivian election due to the fresh memory of the tumultuous gas war.

A second approach to examining the spatial relationship between departments and MAS votes is to look at the variation in the distribution of resources. Table 4 shows that the correlation between average foreign direct investment and MAS votes is consistent, but clearly negative over the 2002 and 2005 elections. The more foreign direct investment (FDI) received in a department, the less likely the department was to go in MAS's favor. This is also a very important find to the study of the ascension of MAS. Residents in El Beni or Tarija, which consistently showed a negative relationship with MAS votes, may fear the rise of MAS because of the possible loss of FDI. MAS's proposed policies of nationalization and economic centralization may scare off foreign investors. This would generate an unfavorable outcome for these departments. Departments with less FDI, however, may appreciate MAS's economic approaches, especially with the economic redistribution promises.

Along the same lines as FDI, if we examine the correlation between gas reserves and MAS votes in 2002 and 2005, we see the correlation rate double as shown in Table 4

above. Relating back to the previous discussion on the importance of gas reserves, Bolivian voters may have voted on the idea that the gas reserves are for Bolivia. While my regressions have shown that socio-economic indicators do not seem to be a factor in the votes for MAS, these conditions may color the perception of gas. We can expect a Bolivian located in a gas department to claim sovereignty over the reserves. A voter in a non-gas department, however, may perceive gas as belonging to the state. This logic is slightly flawed since gas reserves are found in the departments of Chuquisaca and Cochabamba, which were both supporters of MAS. The heavy concentration of gas reserves and high levels of FDI probably reinforced the ideas of departmental sovereignty driving anti-MAS inclinations in the departments where MAS is weakest.

We must also keep in mind the spatial relationship between indigenous peoples and departments. As highlighted in Figure 1, the pro-business and gas-rich states also tend to have lower indigenous populations. Thus, what appears to be an indigenous propensity to vote for MAS is not actually the case. Indigenous and non-indigenous Bolivians behave in the same way. What conditions their behavior is the context of distribution and access to resources. These findings carry implications for other future studies whereby significant political shifts have occurred over regional variation or the distribution of resources. It is important that we begin supplementing the current literature on the political developments of Bolivia and test my findings on similar stories to examine possible apparent trends.

In studying the rise of MAS, we are inclined to extrapolate our findings into the trends of Latin America and beyond. At face value, it appears that the hard left is reemerging in Latin America. We have seen political uprisings and ascension into power



in areas of Mexico, Peru, Ecuador, Brazil, and most evidently in Venezuela with Hugo Chavez. We also have conflicts in Sudan, where we often hear about an Arab Muslim versus a Black Christian conflicts, or in the Israeli-Palestinian conflict. Are these conflicts, uprisings, and electoral ascensions due to ideology and identity? I believe if we applied the same approach to studying these issues as I have outlined above, we would find similar results. The Sudanese conflict, for example, is colored by oil resources and Chinese investment. In the Israeli-Palestinian conflict, we need to understand the roles of water and land resources. These findings raise important points regarding studies of political shifts.

We as political actors are conditioned by our surroundings to respond in certain ways. These responses are often outside of the democratic realm. Morales, prior to the election in 2005, effectively had the country wrapped around his finger. Widespread protests would often erupt with his demands for gas nationalization and changed leadership. Bolivians, however, were not responding to Morales. They were responding to an articulation of ideas that addressed structural issues, like gas, in which they saw as being very relevant to their lives. The question then becomes what sorts of resource variables highly correlate with this support? The qualitative descriptions of Bolivian politics, the indigenous movements, and the rise of MAS have suggested possible variables, and through this analysis I have been able to test these notions. I think this analysis has shown that many previous assertions about the importance of poor indigenous peoples being critical to the rise of MAS may be exaggerated.

The last point that needs to be made is that we cannot understand the politics of a place like Bolivia without understanding the historical relationships of the past. To deny

the past is to deny the realities of today. The elites in Bolivia systematically oppressed the indigenous peoples for centuries. While Bolivia was one of the earlier states in Latin America to grant citizenship rights to indigenous peoples, this only occurred in 1952. Perhaps with the rise of MAS and Evo Morales, the indigenous peoples finally feel politically enfranchised. This does not mean, however, that it is their indigenous story and historical oppression that explains their support for MAS. What history can tell us is that this demographic has been systematically denied political and economic power for centuries. This denial has created a fragmented state that is defined by widespread regional inequality. This regional variation creates patterns of political behavior, which is conditioned by the resources available to the department and to the residents of the department.

In my thesis, I have questioned the relationship between the electoral performance of MAS and the indigenusness of the Bolivian electorate. I have similarly shown that conditions like poverty and inequality do not affect the rise of MAS in the way we would expect. The variations between the departments, as shared in the correlation results above, reveal some explanatory power. My results have generated new questions about resources and geography and their impacts on politics. We need to further explore the reasons that both indigenous and non-indigenous Bolivians support Evo Morales. We can also supplement this analysis by conducting exhaustive interviews to better understand regional differences and the factors that color these perceptions. Further research on where MAS dedicated their campaign resources would also benefit this analysis to understand the significance of indigenusness in Santa Cruz and Tarija, two anti-MAS departments. We could also utilize spatial analyses to understand how

predominantly indigenous communities surrounded by like communities behave politically and compare these with communities surrounded by dissimilar municipalities. The notion that the indigeneness affected the propensity to vote for MAS is not as clear as we have been made to believe. I have shown that indigenous and non-indigenous Bolivians alike tended to operate in similar ways. We also find that the indigenous peoples in Bolivia, when treated as distinct units, do not behave as a unified bloc. The remaining indigenous Bolivians, when compared to the Aymara and the Quechua peoples, tend to behave differently. We need to further explore these questions to better understand the possible explanations for the volatility of Bolivian politics and begin testing these findings in other areas of the world with high political volatility.

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## **Appendix 1 MAS Ten Point Plan**

1. To promote a Constituent Assembly to expand the representation in government
2. To promote the nationalization of the gas reserves
3. To promote the self-governance of Departments within federal regulation
4. To promote the creation of two development banks for the purpose of fighting poverty
5. To promote the fight against corruption and mismanaged in government
6. To promote the reduction of the fiscal deficit
7. To promote the distribution of land to guarantee agricultural and livestock production
8. To promote the fight against crime
9. To promote food sovereignty programs to reduce reliance upon other states
10. To promote the transformation of education

Source: "Bolivian Opposition Party Presents 10-Point Government Plan." *Financial Times Information*

Oct. 13, 2005. Online. LexisNexis Academic, 10 June 2007.

## Appendix 2 Independent Variables

Percent Identify as Indigenous: Percent of the population, 15 years and older, who identify as indigenous in a municipality in 2000

Percent Identify as Aymara: Percent of the population, 15 years and older, who identify as an Aymara Indian in a municipality in 2000

Percent Identify as Quechua: Percent of the population, 15 years and older, who identify as a Quechua Indian in a municipality in 2000

Percent Identify as Other: Percent of the population, 15 years and older, who identify as Guarani, Chiquitano, or Other groups in a municipality in 2000

Percent Do Not Identify as Indigenous: Percent of the population, 15 years and older, who do not identify as Indigenous in 2000

Percent Poverty: Percent of the population whose earnings and assets fall below the poverty line in a municipality in 2000

Illiteracy: Percent of the population, 15 years and older who do not know how to read or write in a municipality in 2000

Percent Employed: Percent of the working age population, set at 10 years of age or higher, that is employed in a municipality in 2000

Percent No Home Ownership: Percent of the population in a municipality that own their own home in 2000

GDP Per Capita: Gross Domestic Product, per capita, for each municipality in 2000

Inequality: Gini coefficient; measure of the unequal distribution of income in 2000

Departments: Chuquisaca, Cochabamba, El Beni, La Paz, Oruro, Potosi, Santa Cruz, Tarija

Coca: Presence of coca agriculture sites, both legal and illegal, as shared by the United Nations

Involvement in Economic Sectors: Measured as the number or proportion of Bolivians starting from the working age of 10 years employed in the following sectors: Agriculture, Mining, Industrial Sector, Public Utilities, Construction, Commercial, Transportation and Communication, Public Sector



### Appendix 3 Regression One Results

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Identify as Indigenous</b>	0.208	0.332	0.131	0.439
<b>Percent Not Identify as Indigenous</b>	0.146	0.464	0.083	0.599
<b>Percent Poverty</b>	0.140	0.504	0.034	0.840
<b>Percent Illiteracy</b>	0.268	0.076	0.234*	0.049
<b>Percent Employment</b>	0.012	0.638	0.009	0.669
<b>Percent No Home Ownership</b>	0.076	0.669	0.012	0.930
<b>GDP Per Capita</b>	4.62E-05	0.548	-3.69E-05	0.544
<b>Inequality</b>	-0.161	0.414	-0.032	0.837
<b>Chuquisaca</b>	0.238*	0.015	0.064	0.405
<b>Cochabamba</b>	0.306***	0.000	0.273***	9.82E-05
<b>El Beni</b>	-0.105	0.166	-0.032	0.589
<b>La Paz</b>	0.228**	0.009	0.020	0.765
<b>Oruro</b>	0.252**	0.006	0.099	0.161
<b>Potosi</b>	0.247**	0.008	0.204**	0.005
<b>Santa Cruz</b>	0.010	0.897	0.026	0.668
<b>Tarija</b>	-0.043	0.621	-0.055	0.417
<b>Coca</b>	0.048	0.265	0.192***	4.02E-08
<b>Percent Agriculture</b>	0.0002	0.991	0.003	0.821
<b>Percent Mining</b>	-0.051	0.831	0.054	0.776
<b>Percent Industry</b>	-0.224	0.294	0.125	0.456
<b>Percent Public Utilities</b>	-3.449	0.377	-0.886	0.774
<b>Percent Construction</b>	-0.443	0.262	-0.643**	0.008
<b>Percent Commercial</b>	-0.049	0.883	-0.116	0.667
<b>Percent Transport and Comm.</b>	0.875	0.245	0.529	0.371
<b>Percent Public Sector</b>	-0.058	0.947	-0.162	0.815

\*\*\*p<0.001 \*\*p<0.01 \*p<0.05;

%MAS 2005 Rsquare = 0.426, N = 311; %MAS 2002 Rsquare = 0.493, N = 313

## Appendix 4 Regression 2 Results

	%MAS 2005		%MAS 2002	
	Coefficient	Sig.	Coefficient	Sig.
<b>Percent Identify as Indigenous</b>	0.242	0.268	0.0969	0.578
<b>Percent Not Identify as Indigenous</b>	0.181	0.372	0.0283	0.861
<b>Percent Poverty</b>	0.109	0.608	0.0911	0.589
<b>Percent Illiteracy</b>	0.209	0.136	0.212	0.0571
<b>Percent Employment</b>	0.014	0.579	0.0112	0.549
<b>Percent No Home Ownership</b>	0.0287	0.868	0.0821	0.536
<b>GDP Per Capita</b>	4.16E-05	0.562	-3.62E-05	0.527
<b>Inequality</b>	-0.157	0.426	-0.0794	0.612
<b>Chuquisaca</b>	0.230*	0.0159	0.0418	0.576
<b>Cochabamba</b>	0.304***	0.000350	0.236***	0.000379
<b>El Beni</b>	-1.11E-01***	1.27E-01	-6.16E-02	2.79E-01
<b>La Paz</b>	0.219**	0.00706	-0.00658	0.917
<b>Oruro</b>	2.51E-01**	4.12E-03	8.14E-02	2.34E-01
<b>Potosi</b>	2.40E-01**	7.42E-03	1.75E-01*	1.29E-02
<b>Santa Cruz</b>	2.97E-03	9.69E-01	-1.02E-02	8.63E-01
<b>Tarija</b>	-0.0439838	0.616	-0.0699	0.310
<b>Coca</b>	3.63E-02	3.97E-01	1.85E-01***	1.20E-07
<b>Total Agriculture</b>	1.76E-06	4.77E-01	3.67E-06	6.27E-02
<b>Total Mining</b>	2.80E-06	0.938	-4.70E-06	0.871
<b>Total Industry</b>	-2.72E-05	0.251	-1.58E-05	0.398
<b>Total Public Utilities</b>	-0.0003848	0.439	0.000118	0.761
<b>Total Construction</b>	-4.30E-05	0.390	-4.69E-05	0.224
<b>Total Commercial Service</b>	7.65E-07	0.957	3.50E-06	0.757
<b>Total Transport and Comm.</b>	0.0001194	0.103	6.27E-05	0.279
<b>Total Public Sector</b>	-3.50E-05	0.234	-0.0000308	0.184

\*\*\*p<0.001 \*\*p<0.01 \*p<0.05;

%MAS 2005 Rsquare = 0.427, N = 311; %MAS 2002 Rsquare = 0.489, N=311

### Appendix 5 Regression 3 Results

	%MAS 2005		%MAS 2002	
	coefficient	significance	coefficient	significance
<b>Percent Other Indigenous</b>	0.156	0.473	0.0403	0.816
<b>Percent Aymara</b>	0.434	0.0545	0.228	0.204
<b>Percent Quechua</b>	0.394	0.0848	0.252	0.168
<b>Percent Not Indigenous</b>	0.232	0.250	0.0819	0.611
<b>Percent Poverty</b>	0.079	0.7054	0.0732	0.661
<b>Percent Illiteracy</b>	0.123	0.436	0.0961	0.440
<b>Percent Employment</b>	0.013	0.605	0.0106	0.593
<b>Percent No Home Ownership</b>	0.059	0.725	0.0782	0.559
<b>GDP Per Capita</b>	7.69E-06	0.915	-6.11E-05	0.286
<b>Inequality</b>	-0.075	0.702	-0.0249	0.873
<b>Chuquisaca</b>	0.177	0.0663	-0.00704	0.926
<b>Cochabamba</b>	0.222*	0.0153	0.155*	0.0322
<b>El Beni</b>	-0.090	0.215	-0.0465	0.411
<b>La Paz</b>	0.099	0.272	-0.0788	0.269
<b>Oruro</b>	0.131	0.165	-0.00193	0.979
<b>Potosi</b>	0.142	0.139	0.0866	0.253
<b>Santa Cruz</b>	0.019	0.805	-0.00239	0.967
<b>Tarija</b>	-0.042	0.628	-0.0695	0.307
<b>Coca</b>	0.040	0.350	0.185***	9.17E-08
<b>Total in Agriculture</b>	1.29E-06	0.598	3.26E-06	0.0947
<b>Total in Mining</b>	9.65E-06	0.788	-2.04E-06	0.943
<b>Total in Industry</b>	-0.0000223	0.341	-1.19E-05	0.521
<b>Total in Public Utilities</b>	-0.0002874	0.559	0.000186	0.629
<b>Total in Construction</b>	-5.19E-05	0.295	-5.14E-05	0.179
<b>Total in Commercial</b>	2.36E-06	0.866	4.91E-06	0.660
<b>Total in Transport and Comm.</b>	0.000106	0.144	4.97E-05	0.387
<b>Total in Public Sector</b>	-2.93E-05	0.314	-2.58E-05	0.261

\*\*\*p<0.001 \*\*p<0.01 \*p<0.05;

%MAS 2005 Rsquare = 0.45 ; N = 311; %MAS 2002 Rsquare = 0.50; N = 313

## Appendix 6 Regression 4 Results

	%MAS 2005		%MAS 2002	
	coefficient	significance	Coefficient	Significance
<b>Percent Other Indigenous</b>	.075	0.729	.033	0.842
<b>Percent Aymara</b>	0.344	0.118	.378	0.171
<b>Percent Quechua</b>	0.319	0.157	.264	0.138
<b>Percent Not Indigenous</b>	0.152	0.444	.106	0.503
<b>Percent Poverty</b>	0.128	.536	.37	0.871
<b>Percent Illiteracy</b>	.151	.378	.093	0.481
<b>Percent Employment</b>	.051	.276	.035	0.341
<b>Percent No Home Ownership</b>	.100	.567	.015	0.915
<b>GDP per capita</b>	.00000276	.717	-.000052	0.386
<b>Inequality</b>	-.101	.605	.0097	0.9501
<b>Chuquisaca</b>	.204*	.0388	.026	0.731
<b>Cochabamba</b>	.234	.0134	.0195**	0.0085
<b>El Beni</b>	-.078	0.298	-.01	0.832
<b>La Paz</b>	.131	0.164	-.046	0.531
<b>Oruro</b>	.142	0.143	0.015	0.846
<b>Potosi</b>	.166	0.089	0.113	0.108
<b>Santa Cruz</b>	.037	0.639	0.043	0.476
<b>Tarija</b>	-.036	0.674	-.05	0.447
<b>Coca</b>	.045	0.297	0.186***	.000
<b>Percent Agriculture</b>	-.002	0.922	.001	.913
<b>Percent Mining</b>	-.045	0.852	.032	.864
<b>Percent Industrial</b>	-.169	0.423	.158	.338
<b>Percent Public Utilities</b>	-2.94	0.447	-.457	.881
<b>Percent Construction</b>	-.521	0.185	-.699**	.004
<b>Percent Commercial</b>	-.104	0.755	-.154	.560
<b>Percent Transport. And Comm.</b>	0.614	0.412	.283	.631
<b>Percent Public Sector</b>	0.446	0.612	0.262	.705

\*\*\*p<0.001 \*\*p<0.01 \*p<0.05;

%MAS 2005 Rsquare = 0.44, N = 311; %MAS 2002 Rsquare = 0.51, N = 313

## Appendix 7 Departmental Regression Results

Chuquisaca	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
	nt			
<b>Percent Indigenous</b>	1.90	.346	1.953	.226
<b>Percent Not Indigenous</b>	1.82	.323	1.97	.182
<b>Percent Poverty</b>	-1.53	0.38	-1.781	.204
<b>Percent Illiteracy</b>	0.833	.574	-0.096	.934
<b>Percent Employment</b>	-.515	.750	-.100	.937
<b>Percent No Home</b>	0.555	.751	-1.28	.359
<b>Ownership</b>				
<b>GDP Per Capita</b>	-.0002	.416	-.0005	.810
<b>Inequality</b>	1.056	.343	.398	.645
<b>Percent Agriculture</b>	-.445	.206	-0.026	.921
<b>Percent Mining</b>	7.569	.745	-0.535	.977
<b>Percent Industry</b>	1.264	.366	1.164	.294
<b>Percent Utilities</b>	23.341	.616	25.20	.494
<b>Percent Construction</b>	0.018	.982	-0.152	.814
<b>Percent Commercial</b>	-0.94	.833	-2.41	.496
<b>Percent Transport and Comm.</b>	-7.363	.520	-1.49	.867
<b>Percent Public Sector</b>	-.2498	.883	7.64	.571
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

<b>Cochabamba</b>	<b>%MAS 2005</b>		<b>%MAS 2002</b>	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	0.786	.618	.678	.621
<b>Percent Not Indigenous</b>	1.917	.230	1.585	.252
<b>Percent Poverty</b>	-1.511	.275	-1.289	.287
<b>Percent Illiteracy</b>	.587	.361	.531	.347
<b>Percent Employment</b>	.254	.645	.166	.726
<b>Percent No Home Ownership</b>	.511	.384	.409	.426
<b>GDP Per Capita</b>	.0001	.799	-.0000008	.980
<b>Inequality</b>	-.554	.372	-.318	.544
<b>Percent Agriculture</b>	.193	.474	.135	.565
<b>Percent Mining</b>	-3.24	.600	-.047	.993
<b>Percent Industry</b>	.799	.231	.588	.313
<b>Percent Utilities</b>	-.662	.975	-10.24	.577
<b>Percent Construction</b>	-1.809	.179	-2.491	.021
<b>Percent Commercial</b>	-3.908*	.043	-4.002*	.019
<b>Percent Transport and Comm.</b>	2.506	.554	6.078	.110
<b>Percent Public Sector</b>	1.67	.518	.420	.852
<b>Coca</b>	.133	.156	.263**	.003

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

El Beni	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	0.611	.773	-0.174	.864
<b>Percent Not Indigenous</b>	1.011	.682	-0.137	.907
<b>Percent Poverty</b>	-0.068	.975	0.361	.736
<b>Percent Illiteracy</b>	-4.67	.245	-0.574	.738
<b>Percent Employment</b>	2.68	.664	0.544	.853
<b>Percent No Home Ownership</b>	0.220	.952	-0.267	.879
<b>GDP Per Capita</b>	-0.001	.564	-.0005	.989
<b>Inequality</b>	-0.758	.841	-0.691	.708
<b>Percent Agriculture</b>	-0.018	.892	-0.011	.866
<b>Percent Mining</b>	-2.755	.806	-1.196	.824
<b>Percent Industry</b>	-2.26	.469	-0.965	.517
<b>Percent Utilities</b>	17.398	.849	-7.39	.867
<b>Percent Construction</b>	-6.281	.649	-1.34	.839
<b>Percent Commercial</b>	5.751	.348	2.195	.445
<b>Percent Transport and Comm.</b>	-0.040	.997	-1.23	.832
<b>Percent Public Sector</b>	1.463	.832	-0.323	.923
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

La Paz	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	2.033	0.57	1.005	1.57
<b>Percent Not Indigenous</b>	2.246*	0.021	1.062	.098
<b>Percent Poverty</b>	-0.39	.536	-0.281	.507
<b>Percent Illiteracy</b>	-0.203	.570	-0.346	.129
<b>Percent Employment</b>	-0.124*	.042	-0.038	.333
<b>Percent No Home Ownership</b>	0.136	.771	0.408	.188
<b>GDP Per Capita</b>	-0.0001	.656	-0.0009	.656
<b>Inequality</b>	-1.733	.134	-1.604	.031
<b>Percent Agriculture</b>	-0.878*	.023	-0.190	.446
<b>Percent Mining</b>	-0.46	.509	.506	.239
<b>Percent Industry</b>	-1.714*	.014	-0.584	.201
<b>Percent Utilities</b>	11.83	.121	-16.001**	.002
<b>Percent Construction</b>	-1.42	.317	-0.540	.110
<b>Percent Commercial</b>	-0.86	.097	-0.281	0.413
<b>Percent Transport and Comm.</b>	0.096	.958	-0.856	.467
<b>Percent Public Sector</b>	0.111	.977	-1.109	.658
<b>Coca</b>	0.038	.602	0.121	0.107

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05



<b>Oruro</b>	<b>%MAS 2005</b>		<b>%MAS 2002</b>	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	3.018	.288	2.072	.329
<b>Percent Not Indigenous</b>	2.77	.313	2.156	.293
<b>Percent Poverty</b>	-0.872	.644	-1.301	.347
<b>Percent Illiteracy</b>	-0.873	.424	-0.272	.730
<b>Percent Employment</b>	1.846	.787	-0.541	.357
<b>Percent No Home Ownership</b>	-1.117	0.510	-0.076	.951
<b>GDP Per Capita</b>	-0.0008	.514	-0.0003	.742
<b>Inequality</b>	-0.231	.887	-1.590	.190
<b>Percent Agriculture</b>	-0.858	.780	-0.236	.811
<b>Percent Mining</b>	.368	.851	-0.440	.765
<b>Percent Industry</b>	-0.858	.780	-0.492	.842
<b>Percent Utilities</b>	-9.80	.759	-23.103	.329
<b>Percent Construction</b>	1.028	.583	-1.116	.415
<b>Percent Commercial</b>	1.99	.514	1.617	.514
<b>Percent Transport and Comm.</b>	-2.796	.584	-1.716	.541
<b>Percent Public Sector</b>	-2.334	.653	-1.758	.644
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

<b>Pando</b>	<b>%MAS 2005</b>		<b>%MAS 2002</b>	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	3.018	.827	.0618	.950
<b>Percent Not Indigenous</b>	4.472	.773	.0491	.958
<b>Percent Poverty</b>	-1.69	.578	-0.501	.367
<b>Percent Illiteracy</b>	1.846	.787	-0.541	.357
<b>Percent Employment</b>	2.155	.375	1.206	.048
<b>Percent No Home</b>	-	-	-	-
<b>Ownership</b>				
<b>GDP Per Capita</b>	-0.0004	.951	.001	.350
<b>Inequality</b>	-2.81	.901	.077	.977
<b>Percent Agriculture</b>	-4.0003	.687	-.900	.153
<b>Percent Mining</b>	-4.446	.669	-1.293	.333
<b>Percent Industry</b>	-2.132	.856	-0.280	.796
<b>Percent Utilities</b>	-	-	-	-
<b>Percent Construction</b>	-11.84	.456	-6.38	.075
<b>Percent Commercial</b>	-2.786	.605	-1.185	.278
<b>Percent Transport and Comm.</b>	4.993	.717	0.1068	.964
<b>Percent Public Sector</b>	-	-	-	-
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Potosi	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	4.913	.096	3.843	.266
<b>Percent Not Indigenous</b>	5.458	.054	3.98	.227
<b>Percent Poverty</b>	-3.728	.163	-3.035	.335
<b>Percent Illiteracy</b>	-0.003	.993	-0.103	.760
<b>Percent Employment</b>	-0.038	.492	.375*	0.023
<b>Percent No Home Ownership</b>	-0.108	.864	-0.056	.941
<b>GDP Per Capita</b>	-0.009	.301	-0.001	.299
<b>Inequality</b>	-1.44*	.031	-.789	.301
<b>Percent Agriculture</b>	-0.011	.556	-0.017	.446
<b>Percent Mining</b>	0.127	.820	.0358	.957
<b>Percent Industry</b>	0.570	.486	1.411	.156
<b>Percent Utilities</b>	9.81	.283	12.309	.260
<b>Percent Construction</b>	1.528	.145	1.307	.290
<b>Percent Commercial</b>	-1.54	.254	-00.261	.869
<b>Percent Transport and Comm.</b>	-0.505	.891	-4.319	.330
<b>Percent Public Sector</b>	-7.443	.305	4.524	.598
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

<b>Santa Cruz</b>	<b>%MAS 2005</b>		<b>%MAS 2002</b>	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	-0.054	.930	-0.082	.862
<b>Percent Not Indigenous</b>	-0.113	.857	-0.231	.627
<b>Percent Poverty</b>	-0.198	.714	0.0243	.953
<b>Percent Illiteracy</b>	0.814	.124	-0.225	.568
<b>Percent Employment</b>	.535	0.078	0.447	.053
<b>Percent No Home Ownership</b>	0.507	.294	0.0697	.847
<b>GDP Per Capita</b>	-0.00008	.279	-0.0005	.768
<b>Inequality</b>	0.005	.990	-0.021	.953
<b>Percent Agriculture</b>	0.146	.495	0.120	.460
<b>Percent Mining</b>	-1.00	.659	-1.83	.292
<b>Percent Industry</b>	-0.336	.657	-0.859	.140
<b>Percent Utilities</b>	-5.850	.583	24.50	.309
<b>Percent Construction</b>	-0.0951	.951	.1345	.253
<b>Percent Commercial</b>	1.458	.327	1.67	.141
<b>Percent Transport and Comm.</b>	0.731	.754	-1.85	.297
<b>Percent Public Sector</b>	-0.045	.983	-3.326*	.043
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Tarija	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Indigenous</b>	4.054	.239	-0.339	.321
<b>Percent Not Indigenous</b>	3.490	.231	.223	.386
<b>Percent Poverty</b>	-2.423	.290	.556	.156
<b>Percent Illiteracy</b>	-0.409	.529	-0.198	.199
<b>Percent Employment</b>	-	-	-	-
<b>Percent No Home Ownership</b>	-	-	-	-
<b>GDP Per Capita</b>	-0.001	.226	-0.0002	.131
<b>Inequality</b>	-1.947	.419	-1.657	.067
<b>Percent Agriculture</b>	0.031	.303	-0.026	.044
<b>Percent Mining</b>	-0.954	.479	0.149	.389
<b>Percent Industry</b>	-	-	-	-
<b>Percent Utilities</b>	-	-	-	-
<b>Percent Construction</b>	-	-	-	-
<b>Percent Commercial</b>	<b>3.078</b>	.431	1.017	.177
<b>Percent Transport and Comm.</b>	0.491	.740	0.771	.109
<b>Percent Public Sector</b>	-	-	-	-
<b>Coca</b>	-	-	-	-

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

## Appendix 8 Departmental Results Disaggregated Indigenous

<b>Chuquisaca</b>	<b>%MAS 2005</b>		<b>%MAS 2002</b>	
	Coefficient	Significance	Coefficient	Significance
<b>Intercept</b>	1.490	0.430	1.382	0.325
<b>Percent Quechua</b>	0.280	0.320	0.100	0.629
<b>Percent Aymara</b>	-21.770	0.290	2.943	0.842
<b>Percent Other</b>	0.534	0.300	0.578	0.141
<b>Percent Poverty</b>	-1.210	0.420	-1.536	0.175
<b>Percent Employment</b>	0.510	0.710	0.685	0.496
<b>Percent No Home Ownership</b>	-0.320	0.810	-1.879	0.081
<b>Percent Agriculture</b>	-0.320	0.230	-0.007	0.971
<b>Percent Mining</b>	-17.400	0.370	-11.924	0.411
<b>Percent Industrial</b>	0.340	0.720	0.706	0.328
<b>Percent Public Utilities</b>	61.400	0.200	42.603	0.236
<b>Percent Construction</b>	0.140	0.860	0.176	0.764
<b>Percent Commercial</b>	-3.460	0.400	-4.762	0.130
<b>Percent Transport and Comm.</b>	3.030	0.780	6.713	0.403
<b>Percent Public Sector</b>	8.680	0.560	11.658	0.292
<b>Inequality</b>	0.045	0.910	0.028	0.926

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

<b>Cochabamba</b>	<b>%MAS 2005</b>		<b>%MAS 2002</b>	
	Coefficient	Significance	Coefficient	Significance
<b>Intercept</b>	0.949	0.318	0.188	0.833
<b>Percent Quechua</b>	1.176**	0.005	1.006*	0.010
<b>Percent Aymara</b>	1.198	0.117	1.208	0.096
<b>Percent Other</b>	0.212	0.966	8.917	0.066
<b>Percent Poverty</b>	-1.627	0.074	-0.853	0.308
<b>Percent Employment</b>	0.499	0.377	0.379	0.469
<b>Percent No Home Ownership</b>	0.326	0.574	0.090	0.869
<b>Percent Agriculture</b>	0.185	0.471	0.150	0.536
<b>Percent Mining</b>	-0.806	0.890	2.154	0.695
<b>Percent Industry</b>	0.628	0.352	0.515	0.420
<b>Percent Public Utilities</b>	4.123	0.842	-1.827	0.925
<b>Percent Construction</b>	-1.894	0.165	-2.414*	0.041
<b>Percent Commercial</b>	-3.672	0.058	-3.348	0.065
<b>Percent Transport and Comm.</b>	2.232	0.598	6.325	0.121
<b>Percent Public Sector</b>	2.929	0.499	-3.495	0.393
<b>Inequality</b>	-0.284	0.652	-0.067	0.907

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

El Beni	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Intercept</b>	-1.002	0.690	-0.422	0.575
<b>Percent Quechua</b>	0.390	0.949	0.072	0.968
<b>Percent Aymara</b>	1.671	0.650	1.146	0.320
<b>Percent Other</b>	-0.370	0.646	-0.135	0.574
<b>Percent Poverty</b>	1.718	0.327	0.722	0.188
<b>Percent Employment</b>	-0.063	0.989	0.251	0.849
<b>Percent No Home Ownership</b>	1.044	0.777	-0.105	0.923
<b>Percent Mining</b>	-3.619	0.752	-1.747	0.610
<b>Percent Industry</b>	-4.441	0.503	-2.829	0.189
<b>Percent Public Utilities</b>	9.706	0.896	-1.844	0.933
<b>Percent Construction</b>	0.098	0.994	1.055	0.794
<b>Percent Commercial</b>	6.269	0.285	2.922	0.124
<b>Percent Transport and Comm.</b>	-9.421	0.445	-3.827	0.310
<b>Percent Public Sector</b>	1.230	0.866	0.435	0.840
<b>Inequality</b>	-1.293	0.724	-0.472	0.664

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

La Paz	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Intercept</b>	1.701*	0.012	0.373	0.436
<b>Percent Quechua</b>	-0.364	0.413	-0.046	0.886
<b>Percent Aymara</b>	-0.280	0.515	0.002	0.996
<b>Percent Other</b>	-1.491	0.177	-0.465	0.557
<b>Percent Poverty</b>	0.083	0.829	-0.067	0.807
<b>Percent Employment</b>	-0.112	0.053	-0.012	0.777
<b>Percent No Home Ownership</b>	0.108	0.742	0.857	0.001
<b>Percent Agriculture</b>	-0.724	0.036	0.048	0.842
<b>Percent Mining</b>	-0.463	0.475	0.472	0.280
<b>Percent Industry</b>	-1.499*	0.022	-0.408	0.383
<b>Percent Public Utilities</b>	-9.414	0.200	-15.666**	0.003
<b>Percent Construction</b>	-1.829	0.152	-0.532	0.113
<b>Percent Commercial</b>	-0.977*	0.045	-0.270	0.431
<b>Percent Transport and Comm.</b>	0.966	0.552	0.290	0.801
<b>Percent Public Sector</b>	-1.521	0.661	-2.736	0.264
<b>Inequality</b>	-0.727	0.512	-0.639	0.403

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Oruro	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
Intercept	1.167	0.449	1.487	0.275
Percent Quechua	-0.332	0.567	0.034	0.937
Percent Aymara	-0.334	0.546	0.064	0.878
Percent Other	0.188	0.787	0.208	0.690
Percent Poverty	0.191	0.859	-0.991	0.237
Percent Employment	0.016	0.837	-0.018	0.752
Percent No Home Ownership	-0.990	0.554	-0.033	0.979
Percent Agriculture	-0.406	0.728	-0.097	0.921
Percent Mining	0.456	0.806	-0.389	0.785
Percent Industry	-3.932	0.281	-1.337	0.648
Percent Public Utilities	-10.909	0.717	-22.986	0.311
Percent Construction	1.177	0.545	-1.167	0.421
Percent Commercial	2.823	0.353	1.724	0.496
Percent Transport and Comm.	-1.207	0.779	-1.331	0.676
Percent Public Sector	-1.890	0.704	-1.567	0.674
Inequality	-0.095	0.952	-1.571	0.185

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Pando	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
Percent Quechua	-50.634	0.289	-14.392	0.289
Percent Aymara	80.456	0.262	24.123	0.253
Percent Other	6.210	0.269	2.461	0.196
Percent Poverty	-13.630	0.292	-2.937	0.194
Percent Employment	16.973	0.282	4.586	0.181
Percent No Home Ownership	-4.599	0.376	-0.091	0.916
Percent Agriculture	1.534	0.605	-0.933	0.279
Percent Mining	36.602	0.365	4.269	0.454
Percent Industry	16.187	0.291	3.531	0.304
Percent Public Utilities	1078.052	0.365	146.125	0.340
Percent Construction	-60.389	0.258	-19.613	0.169
Percent Commercial	-20.080	0.311	-4.785	0.289
Percent Transport and Comm.	-4.055	0.802	4.257	0.306

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05



Potosi	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
Intercept	1.223	0.370	-0.599	0.724
Percent Quechua	-0.591	0.186	-0.267	0.626
Percent Aymara	-0.398	0.382	-0.069	0.903
Percent Other	10.727	0.101	9.844	0.222
Percent Poverty	0.101	0.920	1.157	0.363
Percent Employment	-0.084	0.057	-0.025	0.635
Percent No Home Ownership	0.870	0.226	0.857	0.338
Percent Agriculture	-0.002	0.914	-0.006	0.771
Percent Mining	-0.369	0.510	-0.402	0.566
Percent Industry	1.371*	0.014	2.068**	0.004
Percent Public Utilities	7.175	0.387	10.288	0.322
Percent Construction	1.651	0.086	1.480	0.211
Percent Commercial	-2.473*	0.019	-1.359	0.278
Percent Transport and Comm.	5.202	0.140	1.363	0.751
Percent Public Sector	-15.553*	0.014	-3.692	0.616
Inequality	-1.148	0.076	-0.562	0.473

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Santa Cruz	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
Intercept	-0.219	0.609	-0.177	0.506
Percent Quechua	0.547*	0.020	0.713***	0.000
Percent Aymara	-0.711	0.483	0.257	0.682
Percent Other	-0.048	0.717	0.073	0.375
Percent Poverty	0.155	0.669	0.100	0.656
Percent Employment	0.348	0.219	0.248	0.160
Percent No Home Ownership	0.619	0.211	0.065	0.830
Percent Agriculture	0.110	0.580	-0.023	0.855
Percent Mining	-0.482	0.820	-0.783	0.554
Percent Industry	0.127	0.862	-0.289	0.526
Percent Public Utilities	2.893	0.918	15.743	0.371
Percent Construction	-0.971	0.511	0.535	0.560
Percent Commercial	0.417	0.714	0.473	0.505
Percent Transport and Comm.	0.173	0.935	-1.532	0.247
Percent Public Sector	2.621	0.237	-0.463	0.734
Inequality	-0.234	0.564	-0.150	0.552

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

Tarija	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Intercept</b>	0.201	0.155	-0.045	0.704
<b>Percent Quechua</b>	0.394***	0.000	0.408***	0.000
<b>Percent Aymara</b>	0.333***	0.000	0.194***	0.000
<b>Percent Other</b>	-0.085	0.305	-0.006	0.927
<b>Percent Poverty</b>	0.128	0.372	0.159	0.188
<b>Percent Employment</b>	0.008	0.759	0.001	0.974
<b>Percent No Home Ownership</b>	0.057	0.721	0.204	0.133
<b>Percent Agriculture</b>	-0.008	0.647	0.004	0.800
<b>Percent Mining</b>	-0.130	0.560	-0.261	0.163
<b>Percent Industry</b>	-0.194	0.329	-0.069	0.678
<b>Percent Public Utilities</b>	-1.847	0.627	0.905	0.777
<b>Percent Construction</b>	-0.417	0.283	-0.700	0.006
<b>Percent Commercial</b>	0.045	0.882	-0.208	0.415
<b>Percent Transport and Comm.</b>	0.169	0.799	0.052	0.925
<b>Percent Public Sector</b>	0.449	0.601	0.548	0.450
<b>Inequality</b>	0.121	0.392	-0.110	0.352

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05

### Appendix 9a Robustness Test Identify as Indigenous

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Identify as Indigenous</b>	0.074	0.340	0.055	0.363
<b>Percent No Home Ownership</b>	0.067	0.702	-0.024	0.864
<b>Percent Employment</b>	0.015	0.554	0.010	0.634
<b>Percent Poverty</b>	0.132	0.418	0.150	0.245
<b>Percent Agriculture</b>	0.001	0.975	0.004	0.789
<b>Percent Mining</b>	-0.065	0.786	0.065	0.731
<b>Percent Industry</b>	-0.099	0.630	0.193	0.229
<b>Percent Public Utilities</b>	-3.338	0.393	-0.761	0.806
<b>Percent Construction</b>	-0.459	0.244	-0.634**	0.009
<b>Percent Commercial</b>	-0.004	0.989	-0.177	0.492
<b>Percent Transportation and Comm.</b>	0.536	0.444	0.104	0.851
<b>Percent Public Sector</b>	-0.201	0.818	-0.223	0.746
<b>Chuquisaca</b>	0.449*	0.011	0.093	0.510
<b>Cochabamba</b>	0.524**	0.003	0.289	0.038
<b>El Beni</b>	0.097	0.566	-0.029	0.831
<b>La Paz</b>	0.434**	0.008	0.029	0.824
<b>Oruro</b>	0.434	0.012	0.089	0.512
<b>Pando</b>	0.222	0.133	0.027	0.815
<b>Potosi</b>	0.451*	0.011	0.224	0.111
<b>Santa Cruz</b>	0.206	0.241	0.022	0.874
<b>Tarija</b>	0.193	0.252	-0.032	0.810
<b>Coca</b>	0.041	0.336	0.185***	0.000
***p<0.001 **p<0.01 *p<0.05				
%MAS 2005 Rsquare = 0.42, N = 311; %MAS 2002 Rsquare = 0.48, N = 313				

## Appendix 9b Robustness Test Disaggregated Indigenous

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Quechua</b>	0.196*	0.024	0.171*	0.013
<b>Percent Aymara</b>	0.189*	0.040	0.123	0.091
<b>Percent Other</b>	-0.096	0.285	-0.082	0.247
<b>Percent No Home Ownership</b>	0.084	0.625	-0.022	0.870
<b>Percent Employment</b>	0.011	0.646	0.006	0.761
<b>Percent Poverty</b>	0.123	0.441	0.138	0.278
<b>Percent Agriculture</b>	-0.001	0.948	0.002	0.871
<b>Percent Mining</b>	-0.073	0.758	0.035	0.853
<b>Percent Industry</b>	-0.114	0.574	0.159	0.318
<b>Percent Public Utilities</b>	-2.628	0.495	-0.259	0.932
<b>Percent Construction</b>	-0.573	0.143	-0.710**	0.003
<b>Percent Commercial</b>	-0.057	0.857	-0.213	0.401
<b>Percent Transportation and Comm.</b>	0.428	0.538	0.058	0.915
<b>Percent Public Sector</b>	0.404	0.644	0.259	0.706
<b>Chuquisaca</b>	0.401*	0.022	0.053	0.702
<b>Cochabamba</b>	0.434*	0.013	0.212	0.125
<b>El Beni</b>	0.138	0.408	0.014	0.919
<b>La Paz</b>	0.346*	0.039	-0.015	0.908
<b>Oruro</b>	0.347*	0.045	0.040	0.771
<b>Pando</b>	0.225	0.124	0.039	0.735
<b>Potosi</b>	0.357*	0.043	0.147	0.292
<b>Santa Cruz</b>	0.245	0.158	0.060	0.664
<b>Tarija</b>	0.193	0.245	-0.025	0.847
<b>Coca</b>	0.042	0.326	0.183***	0.000
***p<0.001 **p<0.01 *p<0.05				
%MAS 2005 Rsquare = 0.44, N = 311; %MAS 2002 Rsquare = 0.51, N = 313				

### Appendix 10a Robustness Test Identify as Indigenous

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Identify as Indigenous</b>	0.076	0.323	0.057	0.351
<b>Percent No Home Ownership</b>	0.074	0.671	-0.019	0.893
<b>Percent Employment</b>	0.014	0.579	0.009	0.654
<b>Percent Poverty</b>	0.116	0.477	0.142	0.276
<b>Inequality</b>	-0.158	0.402	-0.089	0.549
<b>Percent Agriculture</b>	0.000	0.994	0.003	0.804
<b>Percent Mining</b>	-0.070	0.770	0.061	0.746
<b>Percent Industry</b>	-0.120	0.560	0.182	0.261
<b>Percent Public Utilities</b>	-3.277	0.402	-0.723	0.816
<b>Percent Construction</b>	-0.435	0.272	-0.627*	0.010
<b>Percent Commercial</b>	0.004	0.990	-0.172	0.506
<b>Percent Transport and Comm.</b>	0.507	0.470	0.089	0.873
<b>Percent Public Sector</b>	-0.117	0.894	-0.177	0.799
<b>Chuquisaca</b>	0.516**	0.008	0.131	0.397
<b>Cochabamba</b>	0.563**	0.002	0.312*	0.031
<b>El Beni</b>	0.127	0.460	-0.011	0.934
<b>La Paz</b>	0.469**	0.006	0.049	0.717
<b>Oruro</b>	0.473**	0.008	0.111	0.430
<b>Pando</b>	0.247	0.103	0.041	0.732
<b>Potosi</b>	0.501**	0.007	0.253	0.089
<b>Santa Cruz</b>	0.251	0.173	0.047	0.746
<b>Tarija</b>	0.226	0.192	-0.014	0.920
<b>Coca</b>	0.044	0.307	0.186***	0.000
***p<0.001 **p<0.01 *p<0.05				
%MAS 2005 Rsquare 0.42, N = 311; %MAS 2002 Rsquare = 0.49, N = 313				

### Appendix 10b Robustness Test Disaggregated Indigenous

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
Percent Quechua	0.196*	0.024	0.171*	0.013
Percent Aymara	0.189*	0.041	0.123	0.092
Percent Other	-0.092	0.308	-0.080	0.260
Percent No Home Ownership	0.088	0.610	-0.020	0.883
Percent Employment	0.011	0.662	0.006	0.772
Percent Poverty	0.114	0.480	0.134	0.296
Inequality	-0.095	0.609	-0.043	0.772
Percent Agriculture	-0.001	0.937	0.002	0.878
Percent Mining	-0.077	0.747	0.033	0.862
Percent Industry	-0.127	0.534	0.153	0.338
Percent Public Utilities	-2.602	0.500	-0.245	0.936
Percent Construction	-0.557	0.156	-0.706**	0.003
Percent Commercial	-0.051	0.872	-0.210	0.409
Percent Transportation and Comm.	0.413	0.553	0.052	0.924
Percent Public Sector	0.446	0.612	0.278	0.689
Chuquisaca	0.443*	0.022	0.071	0.639
Cochabamba	0.459*	0.011	0.223	0.120
El Beni	0.156	0.360	0.022	0.873
La Paz	0.369*	0.034	-0.005	0.970
Oruro	0.372*	0.039	0.051	0.719
Pando	0.239	0.108	0.045	0.699
Potosi	0.388*	0.038	0.161	0.277
Santa Cruz	0.271	0.134	0.072	0.618
Tarija	0.213	0.212	-0.017	0.903
Coca	0.043	0.311	0.183***	0.000
***p<0.001 **p<0.01 *p<0.05				
%MAS 2005 Rsquare = 0.44, N = 311; %MAS 2002 Rsquare = 0.51, N = 313				

### Appendix 11a Robustness Test Identify as Indigenous

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
<b>Percent Identify as Indigenous</b>	0.067	0.375	0.051	0.392
<b>Percent Illiteracy</b>	0.277	0.060	0.249*	0.032
<b>Percent No Home Ownership</b>	0.067	0.676	-0.038	0.761
<b>Inequality</b>	-0.133	0.477	-0.069	0.637
<b>Percent Employment</b>	0.012	0.626	0.006	0.726
<b>Percent Agriculture</b>	0.000412	0.981	0.003	0.774
<b>Percent Mining</b>	-0.055	0.815	0.079	0.672
<b>Percent Industry</b>	-0.203	0.334	0.112	0.493
<b>Percent Public Utilities</b>	-3.643	0.345	-1.165	0.702
<b>Percent Construction</b>	-0.450	0.251	-0.661**	0.005
<b>Percent Commercial</b>	-0.018	0.951	-0.212	0.391
<b>Percent Transport and Comm.</b>	0.956	0.196	0.492	0.398
<b>Percent Public Sector</b>	-0.086	0.920	-0.162	0.813
<b>Chuquisaca</b>	0.522***	0.000	0.175	0.054
<b>Cochabamba</b>	0.592***	0.000	0.374***	0.000
<b>El Beni</b>	0.180*	0.035	0.070	0.294
<b>La Paz</b>	0.509***	0.000	0.117	0.111
<b>Oruro</b>	0.535***	0.000	0.201**	0.008
<b>Pando</b>	0.270**	0.001	0.093	0.148
<b>Potosi</b>	0.527***	0.000	0.312***	0.000
<b>Santa Cruz</b>	0.303***	0.000	0.132	0.051
<b>Tarija</b>	0.246*	0.011	0.039	0.607
<b>Coca</b>	0.051	0.233	0.193***	0.000
***p<0.001 **p<0.01 *p<0.05				
%MAS 2005 Rsquare = 0.43, N = 311; %MAS 2002 Rsquare = 0.49, N = 313				

### Appendix 11b Robustness Test Disaggregated Indigenous

	%MAS 2005		%MAS 2002	
	Coefficient	Significance	Coefficient	Significance
Percent Quechua	0.175	0.054	0.160*	0.026
Percent Aymara	0.191*	0.038	0.127	0.081
Percent Other	-0.078	0.386	-0.067	0.343
Percent No Home Ownership	0.069	0.671	-0.056	0.664
Percent Employment	0.010	0.685	0.005	0.813
Percent Illiteracy	0.161	0.327	0.114	0.377
Inequality	-0.092	0.622	-0.045	0.758
Percent Agriculture	-0.001	0.974	0.003	0.825
Percent Mining	-0.046	0.845	0.061	0.746
Percent Industry	-0.162	0.439	0.135	0.408
Percent Public Utilities	-3.004	0.432	-0.682	0.821
Percent Construction	-0.549	0.162	-0.726**	0.002
Percent Commercial	-0.089	0.774	-0.264	0.282
Percent Transportation and Comm.	0.647	0.381	0.221	0.704
Percent Public Sector	0.400	0.649	0.233	0.736
Chuquisaca	0.503***	0.000	0.168	0.064
Cochabamba	0.535***	0.000	0.327***	0.000
El Beni	0.225*	0.012	0.120	0.086
La Paz	0.430***	0.000	0.086	0.308
Oruro	0.452***	0.000	0.157	0.056
Pando	0.290**	0.001	0.124	0.062
Potosi	0.461***	0.000	0.264**	0.002
Santa Cruz	0.346***	0.000	0.179*	0.011
Tarija	0.268**	0.007	0.071	0.363
Coca	0.049	0.249	0.188***	0.000
***p<0.001 **p<0.01 *p<0.05				
%MAS 2005 Rsquare = 0.44, N = 311; %MAS 2002 Rsquare = 0.51, N = 313				