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Do the Poor Go to the Voting Booths? A Reevaluation of the Socioeconomic Model of Turnout in Established and Emerging Democracies

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ABSTRACT

Do the Poor Go to the Voting Booths? A Reevaluation of the Socioeconomic Model of Turnout in Established and Emerging Democracies

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Studies on consolidated democracies have long concluded that there is a positive relationship between socioeconomic status and turnout. The strength of the empirical findings that linked electoral participation to socioeconomic variables elevated this correlation to a law-like principle and made it possible to assume that this electoral behavior would prevail in all democracies in the world. This dissertation analyzes the relationship between SES and turnout in the US and Mexico using aggregate data instead of the commonly used public opinion polls and proves that the socioeconomic model of turnout does not hold in the Mexican emerging democracy and that the intensity and direction of the SES model for the US depends heavily on the methodology used for the analysis.

In the case of Mexico, since the democratization process started circa 1991, marginalized and impoverished communities have become more dynamic in electoral terms than the more affluent municipalities of the country. The dissertation extensively analyzes the correlation—or lack of—between SES and turnout in Mexico using aggregate data at the municipality level. On the other hand, this work also explores the SES model of turnout for the US combining socioeconomic variables with electoral results at the county level since 1980--instead of relying on the commonly used public opinion polls. The results show that whenever elections are

evaluated independently then the link between SES and turnout is positive and its intensity has augmented significantly throughout the years. Nonetheless if we examine elections all together with the use of cross-section time series, surprisingly, income becomes negatively related to turnout.

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LIST OF ABBREVIATIONS

BEA: Bureau of Economic Analysis

GDP: Gross Domestic Product

GEE: Generalized Estimating Equations

IFE: Instituto Federal Electoral

INEGI: Instituto Nacional de Estadística, Geografía e Informática

NAFTA: North America Free Trade Agreement

OECD: Organization for Economic Cooperation and Development

OLS: Ordinary Least Squares

PAN: Partido Acción Nacional

PRD: Partido de la Revolución Democrática

PRI: Partido Revolucionario Institucional

SES: Socioeconomic Status

VAP: Voting Age Population

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CHAPTER ONE

INTRODUCTION

In the past two decades, democratic principles have scored a notorious victory. Nowadays, almost everyone whether from the right, the center or the left consider democracy the best form of government available or as Winston Churchill eloquently said it: "[M]any forms of Government have been tried, and will be tried in this world of sin and woe. No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of Government except for all those others that have been tried from time to time (Churchill, 1947)."

Today, democracy appears to enjoy high levels of legitimacy. Rules, policies, laws and decisions in general seem justified as long as they are "democratic." Politicians, the media and international organizations promote policies and even military interventions in the name of democracy. The comparative literature has long focused on analyzing the potential benefits of a democratic system and the limitations of a political system of that nature to generate favorable conditions for economic development and political stability.

Classical analyses saw democracy as a threat to private property. According to these perspectives, democracy and universal suffrage would necessarily lead to the elimination of private property. Marx himself argued that democracy inevitably "unchains the class struggle (Marx 1952)." More recently, institutionalists have argued that authoritarian regimes are less likely to have well-established property rights, which are crucial for economic performance and

investments to take place (North 1990). Other authors, such as Mancur Olson have argued that autocrats cannot credibly commit themselves to keep these rights in place (Olson 1991). Nonetheless, these arguments do not clearly establish a link between democracy and property rights. In sum, the debate regarding which type of regime promotes or hinders development has been sharply summarized by Przeworski and Limongi as follows:

> While everyone seems to agree that secure property rights foster growth, it is controversial whether democracies or dictatorships better secure these rights. The main mechanism by which democracy is thought to hinder growth are pressures for immediate consumption, which reduce investment. Only states that are institutionally insulated from such pressures can resist them, and democratic states are not. The main argument against dictatorships is that authoritarian rulers have no interest in maximizing total output (Przeworski and Limongi 1993, p. 51).

On the other hand, the comparative political analysis on democratization is extensive, especially for Latin America. This theoretical framework has also acquired central importance for the study of contemporary politics in east central Europe, sub-Saharan Africa and various parts of Asia. In general terms, the comparative analysis of regime transitions has been one of the major growth industries within the political science discipline. The democratization analytical approach has offered the theoretical tools to classify the political processes that have taken place in a variety of new, developing and sometimes unstable countries—which would not otherwise be center stage in a discipline mostly concerned with the politics of old, wealthy and stable countries.

This dissertation is strongly motivated by the contemporary demand to understand the mechanics of fragile democracies such as the Mexican one. This aim was pursued by moving away from the traditional comparative analytical framework and by borrowing an electoral

behavior approach more commonly used in the American political science literature. The goal of this research endeavor is to evaluate the strength and magnitude of the traditional socioeconomic status (SES) model of turnout in the case of a recent democracy like the Mexican one. In order to fulfill this aim, I used rigorous quantitative analysis at the municipality level for Mexico and then compared the results to those obtained for the United States using a similar methodology at the county level.

To date, most studies of electoral participation concern stable democracies in the developed world. For instance, scholars analyzing the United States—using public opinion polls—have long concluded that this democratic system is biased in favor of the wealthier and more educated citizens. In the US, individuals with higher socioeconomic status are more prone to vote and to participate in other forms of political activism. The relationship between SES and turnout has long been analyzed in the American context. In the early 1970s, Verba and Nie found that SES had a powerful impact on political participation, such that individuals with higher levels of income and more years of education reported a higher turnout (Verba and Nie 1972).

Although there is a consensus regarding the positive role of SES, different authors disagree when it comes to isolate the specific role of different socio economic components. For some analysts, education is the most powerful predictor of turnout (Campbell et al. 1960; Milbrath 1965; Barber 1969; Wolfinger and Rosenstone 1980). Others, however, argue that education has no consistent impact on voting (Milbrath and Goel 1977) or that it has a less

predictive and less powerful effect than income (Bennett and Klacka 1970: Verba, Nie and Kim 1978).

In his extensive study on turnout, Tingsten (cited in Lijphart 1997) found that the voting frequency was highly correlated with higher social standards in Switzerland, Germany, Denmark, Austria, the United States and Sweden. Later on, authors such as Lipset, Berelson and Steiner proved again the strength of the SES model (Lipset 1960; Berelson and Steiner 1964) and in 1997, Lijphart argued that the SES model was as powerful and predictive as it had been in the past.

In the case of Eastern Europe, Reisinger, Miller and Hesli used data from surveys of Russian, Ukrainian and Lithuanian mass public studies conducted in 1990, 1991 and 1992 to analyze participation of former Soviet citizens. Despite predictions, the authors found that these three societies had higher levels of political activism for contacting and unconventional behavior than the West. However, levels of membership in social organizations were lower than those found in successful Western democracies (Reisinger, Miller and Hesli 1995). When analyzing voting behavior, Hesli and Holley found that the socioeconomic model applied quite well to the post-Soviet societies (Hesli and Holley 2004). These countries exhibit a similar pattern to the one observed in consolidated democracies where income and educational attainment are powerful predictors of turnout.

Nevertheless, in developing countries that have recently experienced political liberalization, our understanding of the socioeconomic composition of the electorate is quite limited. The prevailing assumption is that voters in newer democracies in developing countries behave similarly to the voters that live in the democracies of the industrialized world. My dissertation challenges such assumption. Important cases such as India, South Korea and Mexico cannot be explained using the SES model.

In India, marginalized and impoverished citizens register higher levels of turnout than other socioeconomic groups (Yadav 2002). India has experienced several phases in the development of its party system. According to Kothari, until 1967, the system was characterized by one party dominance, moderate levels of political participation and elite consensus. Between 1967 and 1977, greater democratization took place. The political system opened up through the participation of non-elite groups. Finally, from 1977 to our days, a genuinely pluralist political system emerged (Kothari 2002). The socioeconomic composition of the Indian electoral transformed. Hasan argues that "[e]xpanding participation has placed the poor in the downtrodden groups in the caste class and gender hierarchy at the center of the political system" (Hasan 2002, 23). Moreover, the electoral turnout of the poorest groups increased substantially (Yadav 2000). Yogendra Yadav argues that:

> Although overall turnout figures have not increased dramatically, the social composition of those who vote and take part in political activities has undergone a major change. There is a participatory upsurge among the socially underprivileged, whether seen in terms of caste, hierarchy, economic class, gender distinction or the rural-urban divide. They do not lag behind the socially privileged as they did in the past; indeed in some respects they are more active than the former (Yadav 2000, 120).

Despite the relevance of the analysis for India, most of the findings presented by the authors mentioned above are not thoroughly documented with the use of quantitative data at the

national level. These conclusions are based on field work, interviews and direct observations that lead to the conclusion that "India is among the few democracies where electoral turnout of the lower levels of society is well above that of the most privileged citizens. […] The possibility that a lower caste will vote is much higher than for an upper caste person" (Hasan 2002, 6).

Although electoral participation is not the only form of political participation, it is the most fundamental one for a democracy. The dynamism of a democratic regime is highly shaped by voters' interest in participating in the decision making process through their vote. To be sure, democracy would not exist if voters and citizens did not have the opportunity, interest and ability to participate in the governing process.

The existent literature for the United States, Western Europe and other democracies in the industrialized world show that higher socioeconomic status is associated with higher turnout. In the United States, extensive research has documented the strong effect that socioeconomic status has on turnout. The prevalence and strength of these findings elevated an empirical result to a law-like status. This dissertation proves that this electoral behavior maxima does not travel well to emerging democracies like the Mexican one and provides an alternative analytical framework that may prove useful to analyze other democracies in the developing world.

Despite the law-like level that the SES model has acquired in the social sciences and political science in particular, it is unclear how powerful this model really is to explain more recent democracies in developing countries or contemporary consolidated democracies at hteir

early stages. The strength of the empirical findings for the USA made this model quite popular even if it has relied solely on public opinion polls. In an attempt to reevaluate the SES model of participation, my dissertation carefully analyzes two cases using aggregate data at the county/municipality level, the United States where this model has always had a strong predictive strength and the new democracy of Mexico where the model has practically no explanatory power. For that purpose, my research explores the differences in the socioeconomic composition of the two electorates. In order to compare these two countries, I use electoral results, census data and national accounts that provide socio-demographic information for different constituencies. The main units of analysis are the counties in the United States and the municipalities in Mexico.

My findings on Mexico reveal that as the democratization process took place, poor uneducated groups have become very active in the electoral arena. This analysis proves that in general, the empirical correlation between SES and turnout has not applied in this country since the 1991 legislative election—that is since the first widely accepted legitimate election took place in this country. Despite the idea that with democracy and political competition come other patterns of electoral behavior, the findings in this work prove the considerable strengthening of turnout among some of the poorest constituencies while rich municipalities became less active in electoral terms throughout the years.

If we look at elections in the US individually, we find that the role of SES on turnout is consistent with previous findings. Yet, its importance has been growing since 1980. Today, the

impact of income and education on turnout is higher than a quarter of a century ago. It is worth noting that, to the best of my knowledge, no study of the electorate in the United States has used county level data. Scholars have relied mostly on self-reported public opinion polls that tend to overestimate voter turnout—especially for individuals with higher levels of socioeconomic status. It is important thus to compare and contrast the prevailing findings for the US with the results coming from aggregate data and to assess the strength of the relationship between socioeconomic status and turnout and its dynamics through time.

On the other hand, when considering county-level aggregate data for all US presidential elections and using cross-sectional time series models, we find that income negatively impacts turnout and that overall, the socioeconomic status model for the US is less predictive than the literature usually deems. The intensity of the relationship between SES and turnout for the US seems to rely on a particular type of methodology, namely the use of public opinion polls and the individual analysis of elections in the case of aggregate data. The strength of this correlation vanishes and even reverses when other methodologies are used as this dissertation proves in the last chapter.

Institutional variables were also considered in this analysis. Combining the tradition of the comparative focus on institutions with socioeconomic variables further helped elucidate the mechanisms that encourage turnout. Despite the predictions of the rational choice literature that places electoral competition at the center stage of the electoral behavior, in the case of Mexico, this dissertation concludes that competition nowadays does not affect turnout. In the case of the

US, competition has a positive effect on turnout such that greater competition promotes more political participation. This finding is in harmony with the electoral behavior observed in other consolidated democracies of the industrialized world.

In the next section of this work, the literature on turnout and socioeconomic status is extensively reviewed to show how most of the findings lead to the conclusion that socioeconomic variables are highly correlated to electoral participation and that individuals in consolidated democracies of the developed world with higher levels of education and income are more prone to go to the voting booths than other citizens. Studies focusing on the role of institutional variables such as political participation and multipartyism are similarly reviewed.

Chapter three extensively analyzes the socioeconomic composition of the Mexican electorate by combining electoral data and socioeconomic variables for the municipalities in Mexico and reveals the lack of positive relationship between SES and turnout. In recent elections in this country, poor constituencies were more prone to cast their vote than rich ones.

Chapter four analyzes individually American elections since 1980 using aggregate data at the county level in order to trace the evolution of the role of SES on turnout. The results reveal that turnout fell for all socioeconomic groups but it diminished more than proportionally in the poorest counties. The positive correlation between turnout and SES has prevailed throughout the years but its relevance has been growing since 1980. The differential in turnout between counties with the highest per capita personal income and counties with the lowest one augmented

significantly in presidential and legislative elections. Differences in turnout between counties with the lowest percentage of college educated population and counties with the highest percentage have also increased significantly since 1980.

The final chapter of this dissertation combines socioeconomic variables with institutional factors in order to further elucidate the determinants of turnout in both countries. As previously mentioned in this introduction, a striking finding is that when an alternative methodology is used to analyze the US, income turns out to negatively affect electoral participation. This finding weakens the strength of the well established positive link between SES and turnout. In the case of Mexico, the results are consistent with the conclusions from previous chapters. The study of institutional variables reveals that increased competition does not help understand changes in turnout in Mexico.

CHAPTER TWO

SOCIOECONOMIC STATUS, INSTITUTIONAL VARIABLES AND TURNOUT: A LITERATURE REVIEW

II.1. The Importance of Voting

Political participation is a key ingredient for a solid democratic system. Democratic responsiveness is mainly shaped by citizens' participation through voting. In that context, citizens that do vote increase their chances to be represented in the elected body of politicians and thus increase the chances of influencing in their favor the type of public policies adopted. Patterns of electoral participation have long been analyzed in consolidated democracies, mainly in the United States, but they appear to be less understood in emerging democracies such as Mexico where political competition has become acute in the past decade.

Unequal representation of the citizenry may lead to unequal political influence and thus poses a major dilemma for representative democracies. The literature on the United States has long shown that in this country, socioeconomic status and voting are positively related (Gosnell, cited in Lijphart 1997). Similarly, after reviewing a large number of voting studies in Switzerland, Germany, Denmark, Austria, the United States and Sweden, Tingsten concluded that the "general rule [is] that the voting frequency rises with rising social standard" (Tingsten 1937, 155, cited in Lijphart 1997). Since the early 1960s, authors such as Seymour Martin Lipset, Bernard Berelson and Gary A. Steiner argued that the higher the socioeconomic and educational levels of a person, the greater the likelihood of voting turnout (Lipset 1960 ;

Berelson and Steiner 1964). Lipjhart contends that these conclusions were still valid more than three decades later (Lipjhart 1997).

Many political scientists coincide that consolidated democracies in Europe and the United States face a representational bias in favor of the more privileged citizens, given that they are the ones with the higher electoral turnout. In general terms, in the US, wealthy people participate more in politics than poor people (Verba and Nie, 1972; Wolfinger and Rosenstone, 1980). Some scholars have isolated the specific effect of education, occupational status and income on turnout. Wolfinger and Rosenstone found that in the US, there is a very strong effect of education on turnout but the effect of income and occupation is somewhat modest and limited.

The previous studies have allowed political scientists in the United States and Western Europe to elucidate crucial questions of democratic representativeness. As shown in these analyses, equality in political rights does not per se imply a homogeneous use of those political rights. For that reason, it is important to analyze who votes in order to understand prevailing political biases in societies. As stated by Verba et al. "[S]ince public officials are likely to be differentially responsive to citizens who exercise their vote—that is, make their wishes known by participating in politics—the fact that disparities in political involvement are so substantial and that so many citizens are not active at all potentially compromises democracy (Verba et al. 1995, p.11)."

The analysis of the voting population has long been a major topic especially in American politics. The prevailing findings that the well off population tends to vote more than low socioeconomic status individuals have lead scholars to conclude that political responsiveness is biased in favor of the more educated and wealthier citizens. According to Verba and Nie, political participation and in particular turnout is the main mechanism by which leaders become aware of citizen preferences and become motivated to respond to those preferences. For the authors, "the relevant consequence of participation for the individual citizen is what he gets from government. For the system as a whole the relevant consequence is how governmental benefits are allocated among citizens and among groups of citizens. From this point of view, participation is of greatest interest to us as an instrumental activity whereby citizens influence (or try to influence) what the government does" (Verba and Nie, 1972 p. 8).

Recent studies have shown that higher welfare benefits are indeed related to higher levels of turnout among the poor (Hicks and Swank, 1992; Hill and Leighley, 1992). Hill, Leighley and Hinton-Andersson analyzed a pooled time series for the fifty US states from 1978 to 1990 and showed that "the linkage between the composition of the electorate and public policy is driven primarily by variations in the turnout level of the lower class […]." (Hill, Leighley and Hinton-Andersson, 1995, p.76).

II.2. The Socioeconomic Status Model

In the early 1970s, Verba and Nie (1972) explored the relationship between SES and political participation in America. The main goal of the authors was to identify the processes by which

citizens come to participate in political life, and how political participation may affect the responsiveness of governmental leaders. Similarly, Verba and Nie sought to understand how the preferences of American citizens were communicated upward to political agents. Along with other studies, Verba and Nie found that SES has a great impact on political participation, and that more educated and wealthier individuals tend to be more active in the political arena mainly because upper status individuals benefit from groups based resources and possess more motivation[1]. The authors further concluded that:

> [M]ost studies of participation, including [their] own, demonstrate that it is just those with higher income, higher education, and higher status occupations who participate. There are many reasons for this, such as greater resources, skill, and psychological commitment […]. But for whatever reason they participate more, the result is that those who may need governmental assistance the least participate the most—i.e. those already at the top of the stratification hierarchy are likely to be the most active (Verba and Nie 1972, p.12).

While most scholars agree on the positive relationship between SES and higher turnout, there are differences in opinion regarding the specific role of different components of SES. In other words, it is unclear whether education, income or occupation are stronger predictors of political participation. Although the different components of SES are highly correlated, there have been attempts to isolate the specific effect of education, income and occupation. For instance, some authors argue that the level of education has no consistent impact on voting (Milbrath and Goel, 1977). Other studies show that education was less important than income in order to understand voter turnout (Bennett and Klecka, 1970; Verba, Nie and Kim, 1978). Finally, some scholars find that the demographic variable that is most strongly related to turnout is education (Campbell et. al., 1960; Milbrath, 1965; Barber, 1969).

[1] For a review of the literature on the relationship between SES and political participation see Milbrath 1965 and Milbrath and Goel 1977 and Wolfinger and Rosenstone 1980.

In *Who Votes?*, Wolfinger and Rosenstone (1980) conclude that there is a very strong relationship between voting rates and years of education. Based on surveys conducted in the early 1970s, the authors found that "[o]nly 38 percent of respondents with fewer than five years of school went to the polls, as compared with 69 percent of those who stopped with a high school diploma, 86 percent of college graduates, and 91 percent of people with at least a year of graduate school" (p. 17). According to this study, income is only relevant for voters below the poverty line. For those above the poverty line, educational attainment remains the strongest predictor of voter turnout. Using an extensive sample drawn in the late 1980s and early 1990s, the relationship between education and voting was further confirmed by Verba, Scholzman and Brady (1995). These authors find that education is fundamental in order to understand voting, yet they warn us that this variable does seem to predict other forms of political activity.

Verba, Scholzman, and Brady (1995) also find a relationship between income and voting. Although voting seems to be the most egalitarian form of political participation, "[t]urnout is much higher among the wealthy than the poor, but voting is the only act for which the affluent are not at least twice as likely to be active (p. 189)." In particular, the authors find that only 52 percent of the US families with an annual income below $15,000 voted compared to 86 percent of the families with an income of $75,000 and above.

The standard socioeconomic status model relates political participation to individuals' resources—such as time, money and skills—as well as civic attitudes. The main argument states

that high-status individuals belong to social environments that promote and enforce positive attitudinal and participatory norms as well as civic skills. Therefore, these individuals are more likely to participate in politics than are low-status individuals. (Verba and Nie, 1972; Almond and Verba, 1963; Barnes and Kaase, 1979 and Milbrath, 1965). Education and income are both positively related to political participation.

However, even if the relationship between income and participation is persuasive, the effect is typically smaller than education. Education in general seems to be a better predictor of political participation (Acock and Scott, 1980; Barnes and Kaase, 1979; Conway, 1991; Dalton, 1988; Kenny, 1992; Leighley, 1990; Nie, Verba, Brady, Schlozman and Junn, 1988; Salisbury, 1980; Verba, Nie and Kim, 1978; Verba, Schlozman, Brady and Nie, 1993).

Age appears also to be a relevant variable. Once controlling for other factors such as education, income and sex, most studies conclude that political participation increases with age (Jennings, 1979; Jennings and Markus, 1988; Jennings and Niemni, 1981; Wolfinger and Rosenstone, 1980). The effects of other variables such as gender, race and ethnicity are more complex and studies analyzing the impact of these variables on participation tend to conflict. For example the gap between gender likelihood to vote in presidential elections has diminished over time although men are still more prone to participate in other forms of political activities[2]. When controlling for socioeconomic status, some authors find that race positively affects participation while another body of literature concludes the opposite. Minorities' participation depends on the

[2] For an extensive analysis on this topic see Conway, 1991; Leighley and Nagler, 1992; Rosenstone and Hansen, 1993 and Teixera, 1987.

type of participation analyzed and the period of time examined[3]. Nonetheless, Teixera finds that when controlling for education and income, blacks and whites display a similar voting behavior (Teixera, 1992).

Leighley identifies several important problems found in the socioeconomic status model. First, this model assumes that attitudes precede behavior and "that positive civic orientations are causally prior to acts of participation." (Leighley 1995, p.186). This misspecification of the model may well lead to an overestimation of individual's attitudes on participation. (Leighley, 1995). Secondly, the vast majority of socioeconomic studies focuses on individual characteristics and largely ignores their social context. Finally, the standard socioeconomic model assumes that participation opportunities are evenly distributed across the population. If this assumption is proven false, then the disparities between high status individuals and low status individuals might reflect disparities in the opportunities to participate. After careful analysis, Leighley reaches the following conclusion

> […T]he SES model provides no insight as to why high-status individuals will engage in political activity at one point and then later abstain; were civic orientations highly responsive to the immediate political environment, then perhaps this fluctuation would be expected. But, to the extent that these attitudes, or other resources available to high-status individuals, are more stable, why high-status individuals "quit" participating remains a puzzle." (Leighley, 1995 p. 188)

[3] For an extensive analysis on the effect of race on political participation see Berry, Portnoy and Thomson, 1990; Bobo and Gilliam, 1990, Ellison and Gay, 1989, Nie et al., 1988; Uhlaner, Cain and Kiewet, 1989; Verba and Nie, 1972, Verba, Schlozman, Brady and Nie, 1993a, 1993b.

II.3. Institutional Analysis of Turnout: the Mobilization Model and other Political Institutional Factors

In general terms, the mobilization model offers an alternative explanation to civic orientations as a mechanism that mediates the connection between socioeconomic status and participation. According to several authors, political competition plays an important role in explaining changes in turnout. Most studies focusing on external mobilization have found that turnout increases whenever elections are close, competitive, highly funded and when simultaneous races for higher office are taking place (Boyd, 1989; Caldeira and Patterson, 1982; Cox and Munger, 1989; Gilliam, 1985; Patterson and Caldeira, 1983, Tucker, 1986).

In the 1960s, Schattschneider had identified the important inclusive role of political competition. According to his book *The Semisovereign People*, a vigorously competitive party system offers lower income groups the possibility of affecting the decision-making process. Otherwise, under a system of pressure politics, only the upper-class has the possibility to get its interest represented, such that "one party politics tends strongly to vest political power in the hands of people who already have economic power (Schattschneider, 1960, pp. 147)"

According to Downs' theory (1957), rational individuals will not participate in political activities given that they will only obtain collective benefits, and thus s(he) will have an incentive to free ride. Similarly, they will not turn out to vote because they believe that election results will be the same whether or not they participate. Rosenstone and Hansen (1993) attempt to answer the puzzle of why people participate in politics. According to their perspective,

political action is irrational and therefore, explanations of behavior cannot simply rely on individuals; we must look for other explanations. Their particular contribution is the emphasis on mobilization. “Citizens participate in elections and government both because they go to politics and because politics comes to them.” The authors conclude that both individual motivation and strategic mobilization are necessary for participation. Leaders are key actors given that they decide who to mobilize and when to mobilize constituents. Political actors use strategic mobilization by targeting people they know, mobilizing people who are centrally positioned in social networks, mobilizing the most powerful and effective people and finally organizing likely participants.

Given this strategy, potential voters who are employed are more likely to be mobilized. Similarly, potential voters who belong to associations are prone to be mobilized. Finally, wealthy, educated partisans will be targeted. One of the crucial conclusions of this book, for the purpose of the present research endeavor, is that given the strategy followed by politicians, mobilization therefore increases class biases of political participation. Elite’s efforts to mobilize respond to the probability of this action being decisive which in turn depends on the closeness of the election at hand as well as on how many votes these efforts are likely to yield. In the case of Japan, Cox et al. (1998) find that “elite efforts are likely to yield more votes in districts with higher levels of social capital (Cox, 1998 p.458).” On the other hand, Schattschneider reaches a different conclusion and argues that political competition is a key ingredient for inclusiveness and may diminish socioeconomic biases.

In their extensive study of the mobilization model, Rosenstone and Hansen concluded that mobilization factors account for approximately half of the reduction in voter turnout since

1960 as well as the diminishing party-related participation activity (Rosenstone and Hansen, 1993). Similarly, Verba, Nie and Kim argued that group mobilization was the key variable to explain cross-national differences in the connection between participation and socioeconomic status (Verba, Nie and Kim, 1978). The authors demonstrated that group mobilization can revert the traditional relationship between socioeconomic status and participation and that whenever group mobilization is strong, this relationship may become insignificant.

When looking at institutions such as electoral rules and procedures that shape voters' incentives and strategies, Jackman found that five factors determined voter-turnout levels in the 1960s and 1970s across 19 industrial democracies. In particular, the existence of nationally competitive electoral districts appeared to give incentives for parties and candidates alike to mobilize voters and therefore increased turnout. Disproportionality in the translation of votes into seats, on the other hand, created a disincentive to voting. Multipartyism and the need of coalition building in the legislative tended to reduce the importance of electoral outcome and thus depressed participation. Unicameralism allows for more decisive governments and establishes a clearer link between elections and legislation and thus it helped boost turnout. Lastly, mandatory voting helped promote electoral participation. According to the author, the empirical results were consistent with expectations although the results for the United States and Switzerland did not seem to support these conclusions.

II.4. Comparative Perspective: Analysis of Other Democracies

As we have seen, there is a strong consensus that in the United States SES, and in particular education, has a considerable effect on individual's propensity to vote. Once this conclusion was reached, the challenge for many scholars was to test the validity of these theories in other democracies. As a result, several authors have compared the American case to other democracies as a mean to evaluate the impact of SES on voting.

In their very influential study of seven nations, Verba, Nie and Kim (1978) found that the American experience could be generalized to other countries. By looking at a very heterogeneous sample of countries (Austria, India, Japan, the Netherlands, Nigeria, the United States, and Yugoslavia), the authors argued that SES was a powerful predictor of voting behavior in these countries. Although SES matters in all cases, the magnitude of the effect greatly varies across countries as shown on table 2.1:

Table 2.1- Participation and socioeconomic advantage: overall participation scale by six levels of socioeconomic advantage

	Level of Socioeconomic Resources						
Nation	Lowest Sixth	2	3	4	5	Highest Sixth	Difference between Highest and Lowest Sixth
Austria	-20	-4	-4	4	15	14	34
India	-42	-31	-22	6	17	67	109
Japan	-23	-2	-3	4	10	16	39
Netherlands	-23	-13	-18	-13	14	39	62
Nigeria	-42	-30	-4	6	34	33	75
United States	-42	-26	-11	1	14	61	103
Yugoslavia	-45	-33	-14	4	26	58	103

Source: Verba, Nie and Kim 1978, p. 65.

Countries such as India, the United States and Yugoslavia show a considerable gap in turnout between individuals with the lowest socioeconomic status and those with higher socioeconomic status. Nigeria and the Netherlands also display a socioeconomic gap in turnout, but the magnitude of this difference is smaller than in the previous cases mentioned. Finally although in Japan and Austria socioeconomic status is positively related to turnout, the disparity is less significant than in other democracies.

The main reason why SES does not always affect voting in a similar manner lies on the importance of group-based forces as well as the relevance of political institutions, such as compulsory voting.[4] For instance, individual motivation and resources can give an advantage in terms of political participation to some members in society. In turn, this advantage can be altered by the way institutions such as parties and organizations mobilize their constituency.

Arend Lijphart (1997) is concerned with the bias in favor of privileged individuals in democracies. For that reason he explores in a detailed manner what institutional variables may help reduce this bias. The author advocates the adoption of compulsory voting as a mechanism for establishing universal turnout and reducing the overwhelming impact of well-to-do voters on politicians. Although the empirical connection between SES and voting appears quite strong, the theoretical grounds to explain this relationship are still quite weak. As stated by Verba, Scholzman and Brady (1995), "the SES model lacks a solid theoretical interpretation as to why

[4] For an extensive analysis of the role of political institutions on voting in different democracies, see also Bingham Powell (1986).

those high on the socioeconomic scale are so unambiguously overrepresented in participatory input (p. 525)."

II.5. The Mexican Case and Other Latin-American Countries

The relationship between SES and electoral turnout has seldom been analyzed in the Mexican context. In 1965, Pablo González Casanova argued that poor illiterate Mexicans registered a lower turnout than their counterparts living in rich urbanized communities. Essentially economic development and urbanization was assumed to be linked to higher levels of turnout, unfortunately no evidence was presented to support this claim.

Barry Ames (1970) found that in general terms, turnout was positively linked to PRI vote and that whenever opposition parties' presence was strong, electoral participation tended to diminish. Interestingly, Ames also found that contrary to expectations and to the predictions of the comparative literature on electoral behavior, turnout was especially significant in poorer and less urbanized areas. Other scholars such as Rogelio Ramos (1985) and Charles Davis (1983) reached similar conclusions. In his comparative analysis of Mexico and Venezuela, Davis (1983) found that given the authoritarian nature of the Mexican regime in the past decades, Mexican workers were less capable of converting their socioeconomic resources into political participation than their counterpart in Venezuela. The main conclusion of the author states that:

> [M]ore advantaged Mexican workers are no more prone to be psychologically involved in politics than are less advantaged workers. This finding helps to explain why Mexican workers are less able to convert socioeconomic resources into political activism. In the context of Mexico's authoritarian politics, the relative socioeconomic resource level of an individual worker does not affect the degree of psychological involvement in politics; hence, those more privileged members of the working class, being no more motivated, are no more likely to be politically active than are the less privileged. (Davis, 1983 p.435).

Table 2.2 summarizes Davis'findings for Mexico and Venezuela and contrast the results with the findings from Verba, Nie and Kim (1971) for the US, India, Austria, Nigeria and Japan. Once again the author concludes that the authoritarian nature of the political regime in Mexico and the tightness of the corporatist structure resulted in a lack of relationship between socioeconomic status and political participation. On the other hand, Venezuela's results are strikingly similar to the average coefficients reported by Verba, Nie and Kim (1971).

Table 2.2- Comparison of Mexico and Venezuela findings with those reported in the Verba, Nie and Kim Five Democratic Nations Study (1971)

	US*	India*	Austria*	Nigeria*	Japan*	Average	Venezuela Working Class**	Mexico Working Class**
Education with Psychological Involvement	.35	.41	.32	.26	.28	.33	.32	.03
Psychological Involvement in Politics with:								
Campaign Activism	.42	.37	.51	N/A	.34	.40	.41	.36
Communal Activism	.39	.44	.30	.37	.36	.36	.28	.17
Voting	.28	.05	.04	.18	.15	.14	.16	-.01

SOURCE: Davis, 1983 p. 439

* In the five-nation study the coefficients between psychological involvement and the three modes of political activity are path coefficients in which education, strength of partisan affiliation, and sense of contribution to community welfare are held constant. Their indicator of psychological involvement is similar to ours: frequency of political discussion and expressed interest in politics (Verba, Nie and Kim, 1971 pp44-63)

** These are the partial correlations in which class solidarity and institutional affiliation are held constant.

On the other hand, a recent paper published by Klesner and Lawson (2001) finds that nowadays, turnout patterns in Mexico are quite similar to those found in established democracies throughout the world. According to the authors, "[…] Mexico's more affluent and politically engaged citizens are now more likely to participate than the poorer, less informed, and rural

voters who for decades dutifully delivered their votes to the PRI" (Klesner et al., 2001, p. 19). The drastic turnout took place in the decade of the 1990s when the PRI's strength became compromised. Voters previously co-opted by the PRI's machinery became more autonomous and felt less bound to supporting the ruling party. The authors conclude that:

> [A]s Mexico urbanized and its citizenry became better educated, the foundations of the PRI's electoral machine began to crumble. The proportion of Mexicans outside the PRI's state-corporatist associations and informal clientelistic networks swelled, and growing numbers of voters felt less compelled to participate in traditional rituals of power transfer. Ultimately, a series of electoral reform culminating in the 1996 Reform of the State introduced greater competition and equity into the electoral process. Previously captured PRI supporters were now freer to abstain, and potential opposition voters could expect that their votes would be counted honestly. As a result, patterns of electoral participation in Mexico began to change. (Klesner et al., 2001, p.21).

The authors identify three main reasons that help explain the positive relationship between socio-economic status and turnout. First, the PRI seems to have lost power over traditional instruments of social control. The authors mention that "[O]her measures of clientelism and coercion from the 2000 election also provide evidence for the breakdown of old vote-getting practices. (Klesner et. al., 2001, p.27)." The second main reason for the observed convergence in turnout rates was the reduction in the registration gap between PRI and non-PRI supporters. For instance, in 1988, on average 80% of PRI supporters were registered versus only 73% of opposition supporters. Yet, in 1991 and 1994, this gap had disappeared, and in 2000 the gap although present was only 2-3%. Finally confidence is one of the variables identified to explain the convergence in turnout. Voters felt more confident that their vote would be respected and that elections would be honest and clean.

In their study on Guatemala, Lehoucq and Wall analyze the role of sociological and institutional factors on electoral turnout in 330 municipalities in Guatemala. The authors show that turnout decreased as municipal size increased and as the ratio of registered voters to voting stations also increased. The number and spatial distribution of polling stations in Guatemala was important to explain turnout. On the other hand, following Jackman's line of investigation, Pérez-Liñán analyzed the role of different institutional variables to understand turnout in Latin America. His study included several legislative and presidential elections in democracies, semi-democracies and late stage authoritarian regimes for seventeen countries in Latin America. The author analyzed five variables that had previously been identified by Jackman (1987) and Jackman and Miller (1995) as key factors able to account for cross-national variation in turnout in industrialized democracies. These factors include competitive electoral districts, disproportionality, multipartyism, unicameralism and compulsory voting. In general terms, the traditional institutional model did not help predict turnout in this region. Variables measuring the role of democratization were not significant either. The author concludes that:

> The Jackman model does not predict voter turnout very well in Latin America during the transitional period—even after controlling for the level of democratization. Second, political rights do not have a clear effect on turnout. On the one hand, semi-authoritarian regimes tend to organize elections as legitimizing rallies for the ruling party, and distribute selective incentives (positive and negative) for voters to turn out. In such cases, political mobilization is not the effect of political competition, but of political control (Pérez-Liñán, 2001, pp 287-288).

Pérez-Liñán then focuses on analyzing the role of voter registration and party competition in a transitional setting. Effective registration on the one hand raises the proportion of people eligible to vote but it also can diminish the marginal cost of mobilization for political parties and other mobilizing agents. In order to measure party competition, the author also introduces a new

measurement that better captures the electoral setting in Latin America and concludes that party competition alone accounts for more than 20% of the variance in turnout while registration explains 58% of the variance in electoral participation.

II.6. The Rational Choice Model of Participation

Scholars commonly assume that individuals are rational and that they pursue specific goals. The decision to participate is the result of a cost-benefit analysis. As long as the benefits of participating are higher than the costs, rational individuals will be politically active (Aldrich, 1993; Downs, 1957; Jackman, 1992; Opp, 1989; Whiteley 1995). This model argues that whenever non-participants cannot be excluded from the collective benefits of the public good, rational individuals will tend to free ride, that is they will not bear the costs of participation (Olson, 1965).

The paradox that we encounter in this case is that despite the predictions of the rational model that individuals will opt to abstain, political participation in reality does exist and can vary across time and regions even when the structure of cost and benefit remain constant. Moreover, in some cases, such as in India, the cost of participating could be perceived as extremely high given that voters sometimes have to travel for hours in order to reach a voting booth. Nonetheless participation in India is quite high and people seem to be very committed to participate in the electoral process. Olson offered the most common solution to the collective action problem and it was in the form of selective incentives to individuals to join such that a benefit will be made available for those who participate.

Other analytical solutions to this paradox have been offered. Downs suggested that the analysis of the decision making process of voting should also include a factor that he called the D factor that will correspond to the individual's value of preserving a democratic regime in the long term. Alternatively the "minimax regret" solution suggested that individuals do not per se consider the probability of changing the outcome of the election as the main determinant in their decision to participate but rather they are motivated by the will to reduce as much as possible the likelihood that their least preferred candidate will win the electoral contest (Ferejohn and Fiorina, 1974).

Aldrich has argued that the study of political participation within a rational choice framework needs to reconsider the fact that Olson's model of collective action contemplated that the costs and the benefits of the activity were pretty high but voting is a low cost/low benefit activity (Aldrich 1993). The collective action model seems more suited to explain other forms of political participation such as protest. Finally, rational choice models share the same difficulties than other studies that use self-reported motivations. Individuals have incentives to exaggerate their commitment or willingness to participate. The rational choice research also relies on samples of participants and does not consider those who did not participate, thus creating a selection bias (Achen, 1986; Berk, 1983; Dubin and Rivers; 1989 1990).

CHAPTER THREE

DEMOCRATIZATION IN MEXICO AND THE EMPOWERMENT OF POOR CONSTITUENCIES: AN ANALYSIS OF THE SOCIO-ECONOMIC COMPOSITION OF THE ELECTORATE, 1991-2003

The aim of this chapter is to analyze who votes in Mexico's emerging democracy, and to assess the representativeness of this particular democratic system. Furthermore, this section evaluates the accuracy of the theories that explain industrialized democracies for the developing world. In general terms, understanding who votes is an important task for political scientists, given that it tells us whether public officials hear disproportionately from the poor or the rich, from the well educated or less educated, from the rural population or the urban one. Hence the present project studies the SES composition of the electorate in Mexico and their electoral behavior.

In Mexico, in the past elections since 1991, poor uneducated groups have become relatively more active in the electoral arena. This analysis reveals that the relationship between SES and turnout did not apply since 1991 to the same extent than it did in other countries. Despite the idea that with democracy and political competition come other patterns of electoral behavior, the findings in this chapter reveal that electoral competition in Mexico lead to the strengthening of turnout among some of the poorest constituencies while rich municipalities became less active in electoral terms. The chapter will be divided in four main sections. First, I will present the results that illustrate the changes in the socio-economic composition of the Mexican electorate by looking at the past two presidential elections in 1994 and 2000 as well as

the last five legislative elections. I will then analyze voters' partisanship according to SES and examine changes in preferences that took place in the period considered. Third, I will present the regressions elaborated that help us further elucidate the changes in turnout in Mexico as well as the specific effect of different variables such as education, income etc…Finally, I will discuss the main findings of the chapter and contrast them to the work of other authors.

III.1. The Mexican Case

The *Partido Revolucionario Institutional* (PRI) ruled in Mexico for over seven decades.[5] Although opposition parties existed such as the center-right *Partido Acción Nacional* (PAN) and the left-wing *Partido de la Revolución Demócratica* (PRD), it was not until the 2000 presidential election that the hegemonic PRI was defeated. Nonetheless, during the 1990s, important changes aimed at liberalizing the political process took place. It is in the context of this democratization process that I will analyze the changes in the socio-economic composition of the Mexican electorate.

The evolution towards a more pluralistic system has been slow in Mexico. Since 1979, several reforms have changed the electoral formulas used to elect the chamber of deputies. The 1979, 1982 and 1985 elections established three hundred single member districts and one hundred members elected through proportional representation limited to parties that did not win more than sixty districts. In 1988, the formula allowed for two hundred list seats but the rules

[5] From 1929 to 2000 Mexico's president came from the ranks and files of the PRI and its predecessor political parties.

ensured that the party that won a plurality of districts would still control a majority of seats independently of its vote share. Yet, no single party could hold more than three hundred and fifty seats. The 1988 election was highly contested and declared illegitimate by many groups. Public discontent forced the ruling party to undertake political reforms aimed at liberalizing the electoral arena.

The 1991 reforms maintained the ceiling and majority-assuring clause but established a new rule that required the winning party to win at least thirty percent of the vote. The new rules also allowed for the creation of new seats for the ruling party to prevent that the winning party would have to rule with a narrow majority and it restricted altogether the possibility of a divided government. In the negotiation process, the government granted more control over the electoral process to the Federal Electoral Institute (IFE) and to a Federal Electoral Court. The reform that took place in September of 1993 –approved only by the PRI and the PAN– increased the period of time during which all parties were allowed to review the nominal lists of voters.

In addition, in 1994, minority parties were for the first time allowed to be represented in the Senate through the introduction of proportional representation, while House representation rules were also modified such that the majority-assuring rule was removed and the elections to proportional representation seats became independent from the election to the plurality seats. Under this new clause, parties could not win more than sixty percent of the seats. In fact, the new legislation still allowed for PRI overrepresentation but it provided for the possibility of this party

losing control over the House in the case of extreme electoral failure.[6] In 1996, in an attempt to correct the disproportional result created by the 1994 reforms, the electoral law established limits to the number of seats that a party could win to three hundred and a ceiling of eight percent to the maximum level of over-representation. According to Weldon, "[T]his electoral rule has been as stable as any since multiparty representation was established in 1964, having been used in the 1997, 2000, and 2003 elections. No party has won an absolute majority of seats under this rule. The 1996 reform also made the IFE fully autonomous and enhanced the powers of the federal electoral court (Weldon, 2005, p. 98)."

These series of reforms can be understood as the institutionalization of political competition. From then on, the democratization process seemed unlikely to be reversed. To date, it appears practically impossible to guarantee the minimum wining coalition in congress to revert these political achievements. The democratization process was accompanied by a drastic change of the profile of the electorate during the nineties. For instance, in the 2000 presidential election, the electoral participation fell at the national level and in particular in richer municipalities, yet, the electoral participation of the poorest municipalities increased substantially in relative terms. Findings for Mexico show that as the democratization process took place, the poorest groups as well as the constituencies situated in the middle of the SES spectrum voted more compared to other SES groups. Similarly, the relevance of literacy—as a predictor of electoral participation—fell when comparing the 1994 presidential election to the 2000 one (Alberro 2000).

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[6] Other organizational and administrative changes were included in this electoral reform. For a detailed discussion of the entire reform package see Lujambio, Alonso, *Federalismo y Congreso en el Cambio Politico de Mexico.* Mexico, D.F.: UNAM, 1995.

III.1.1. Data

The data set for Mexico was created using official data from the Instituto Federal Electoral (Federal Electoral Institute) for the results at the municipality level of the two presidential elections in 1994 and 2000 as well as the Atlas Electoral Federal de México, 1991-2003 for legislative electoral results. In order to divide municipalities according to their levels of economic prosperity, I used the most recent index of welfare developed by the National Institute of Statistics, Geography and Informatics (INEGI) in 2000. The welfare index was constructed by Mexico's National Institute of Statistics (INEGI), using 36 different variables from the 2000 census. Among other measurements, the index contemplates education variables, consumption and income variables, as well as occupational status, and therefore constitutes a SES index. This index classifies municipalities into seven categories where 1 represents the most unprivileged while 7 is attributed to municipalities with the highest levels of welfare. Socio demographic data for the municipalities was obtained from the census and population projections were elaborated with the use of these censuses as well as population counting surveys such as the 1995 conteo de población and estimates for 2005. It is worth mentioning that given the difficulties that the experts have faced estimating the general population for 2005, the results of this paper for the 2003 election will be reviewed once official results of the survey are available.

I will take municipalities in Mexico as the main unit of analysis. Depending on the year of study, the number of municipalities varies. Since 1990, there have been over 2,400 municipalities with a population ranging from 109 to almost 1.8 million inhabitants. The average number of inhabitants per municipality in 2000 was 39,903 with a standard deviation of 119,428. The median population for these municipalities was 11,795 in that year. I decided to use

aggregate data as a way to provide an alternative and complementary study to the traditional analysis that relies on public opinion polls. The use of aggregate data presents problems of ecological inference on the one hand, while self-reported information in polls tends to be biased and overestimates turnout and political participation in general given that people report to be politically more active than they really are[7]. Comparing and contrasting these two types of studies can enhance our understanding of electoral patterns and give us a clearer idea of the Mexican electorate. In addition, this kind of aggregate data allow us to perform analysis at the federal, state and local levels.

III.1.2. Presidential Elections: 1994 and 2000

Figures 3.1 and 3.2 depict the relationship between municipalities' levels of welfare and electoral turnout for the two past presidential elections. The relationship between higher welfare and electoral turnout at the municipality level seems quite clear for the 1994 election. In fact municipalities with higher levels of welfare voted consistently more than those with lower levels of welfare. Interestingly, in the 2000 election, this pattern is no longer observed. The turnout of the richest municipalities decreased leaving the poorest municipalities registering the highest level of electoral participation.

[7] For a thorough discussion on ecological inference, see Cho, Wendy and Charles Manski. 2006. "Cross Level Ecological Inference" in Box-Steffensmeier, Janet, Henry Brady, and David Collier, eds. *Oxford Handbook of Political Methodology*. Oxford: Oxford University Press.

Figure 3.1- Turnout by level of welfare in the 1994 presidential election

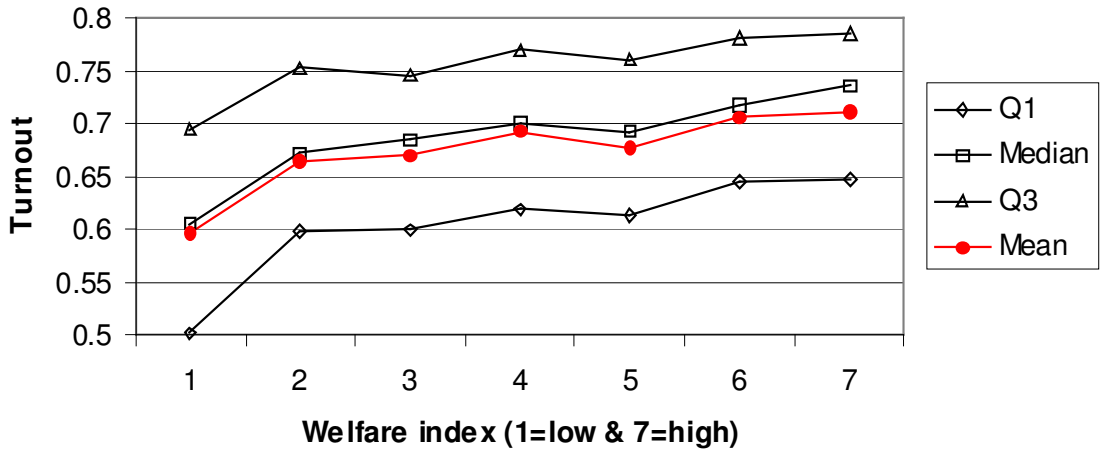
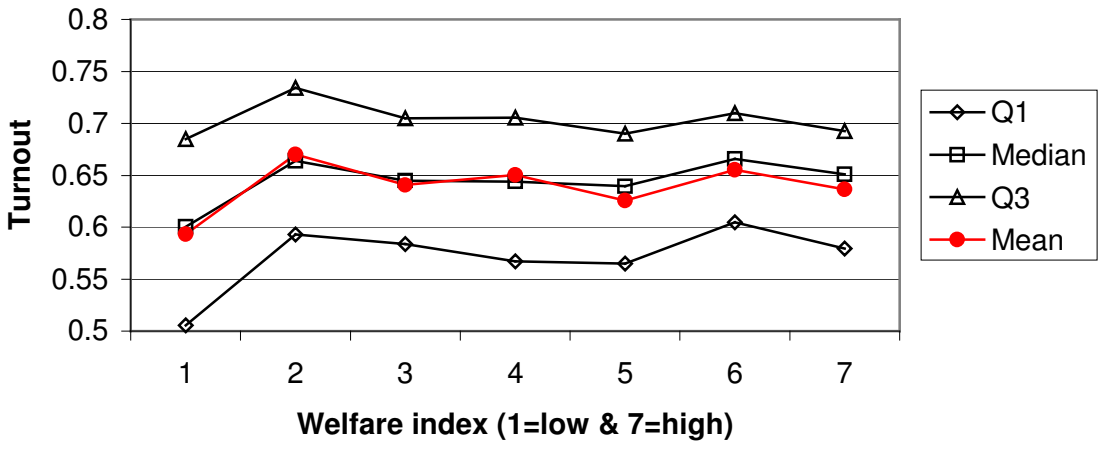


Figure 3.2- Turnout by level of welfare in the 2000 presidential election



In order to further elucidate this phenomenon, in table 1, I analyze the percent change in electoral turnout between the two presidential elections (1994 and 2000), according to municipalities' level of welfare. This table reveals that on average, participation fell more than 10 % in 39 % of the municipalities. However, it fell more than 10 % in 59.1 % of the richest municipalities while only 29.3 % of the poorest municipalities experienced such a drastic drop. Similarly, turnout increased by more than 10 % in 27.9 % of the poorest municipalities while only 8.3 % of the richest municipalities experienced an increase in turnout of this magnitude. These calculations clearly reveal that between 1994 and 2000, the SES composition of the Mexican electorate experienced a significant change. In general terms, in the 2000 presidential election, poorest groups appeared to be more active when it came to voting than rich communities. I will further discuss this phenomenon in the final section of this paper.

Table 3.1- Change in presidential electoral turnout in Mexico between 1994 and 2000 by level of welfare in municipality

Welfare index (1=low & 7=high)	Percent change in electoral turnout between 1994 and 2000					
	change<-10%	-10%<=change<-5%	-5%<=change<=5%	5%<change<=10%	10<change	Total
1	29.3	11.7	23.0	8.1	27.9	369
2	24.7	14.3	23.7	9.4	27.9	287
3	30.8	16.8	27.3	10.2	15.0	334
4	42.7	14.9	23.0	4.8	14.7	457
5	44.5	20.2	20.5	4.7	10.1	425
6	46.0	18.0	19.0	5.7	11.3	300
7	59.1	20.4	10.9	1.3	8.3	230
Total	39.1	16.4	21.6	6.4	16.5	2402

III.1.3. Legislative Elections: 1991-2003

As in most democracies, turnout in Mexico has been lower in midterm elections than in presidential ones since 1991 according to the information collected from IFE and the Atlas Electoral Federal de México. The relationship between SES and turnout is quite unclear when we look at the legislative elections. In 1991, municipalities with low and middle levels of welfare reported higher participation than municipalities at the end of the welfare spectrum. The turnout for municipalities type 2 and 4 was 56% and 57% respectively compared to 52% for both municipalities 6 and 7.

On the other hand, in the 1994 legislative elections, we observe a similar trend to the one previously described for the presidential election in that same year. Higher levels of welfare appeared to be positively correlated with higher turnout. Municipalities 2 and 4 reported a turnout of 66% and 68% while richer municipalities reached levels of electoral participation greater than 70%. Figures 3.5 and 3.6 reveal a weak association between SES and turnout. It is unclear how different levels of welfare influenced the attendance to the voting booths. For instance, in 1997 poor constituencies (municipalities 2) reported a quasi identical level of participation of 55.8% than rich constituencies belonging to municipalities 6. In 2000, turnout among municipalities 2 was slightly higher than the turnout among richer constituencies but it is difficult to draw any significant conclusions about the relationship between SES and turnout when looking at the graph. Contrastingly, in the case of the presidential election in 2000, there was a significant association between lower levels of welfare and higher electoral participation.

Interestingly, the 2003 election shows a clear negative relation between SES and turnout. Rich constituencies voted significantly less than poor ones. For instance, municipalities 2 had a 55% electoral turnout while municipalities 7 only reached a 38.7% turnout on average. The previous findings indicate the lack of clear, well established relationship that the comparative literature so often identifies between SES and turnout. Whenever there exists a positive relationship between these two variables (as was the case in both the presidential and legislative elections in 1994), the trend does not persist for more than one electoral period. Additionally, the results of the 2000 presidential election followed by the results from the 2003 midterm election signal that the relationship between SES and turnout may well becoming a negative one.

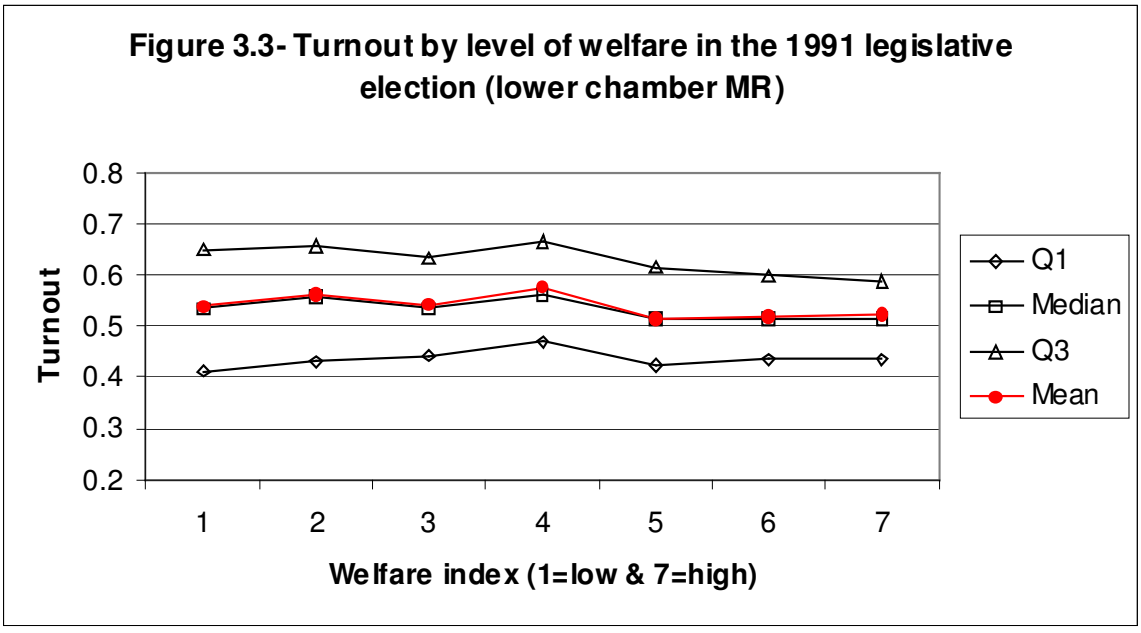


Figure 3.4- Turnout by level of welfare in the 1994 legislative election (lower chamber MR)

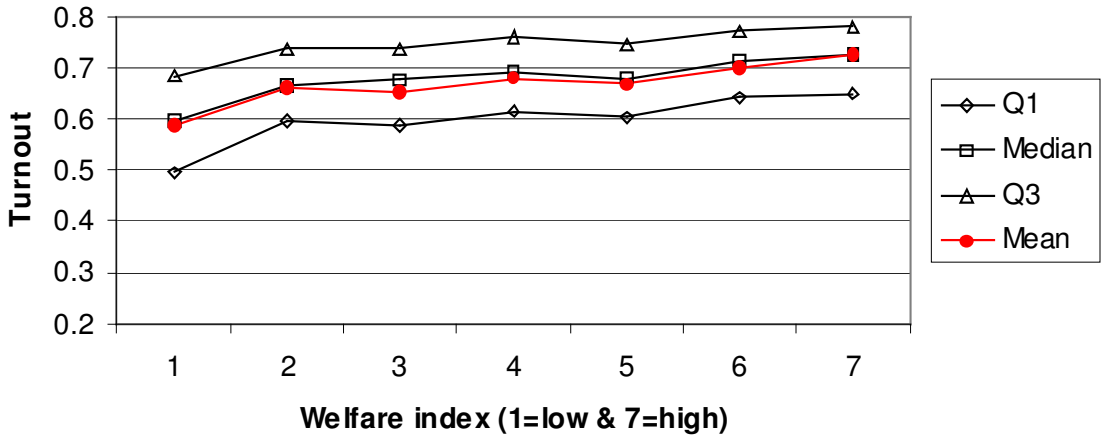


Figure 3.5- Turnout by level of welfare in the 1997 legislative election (lower chamber MR)

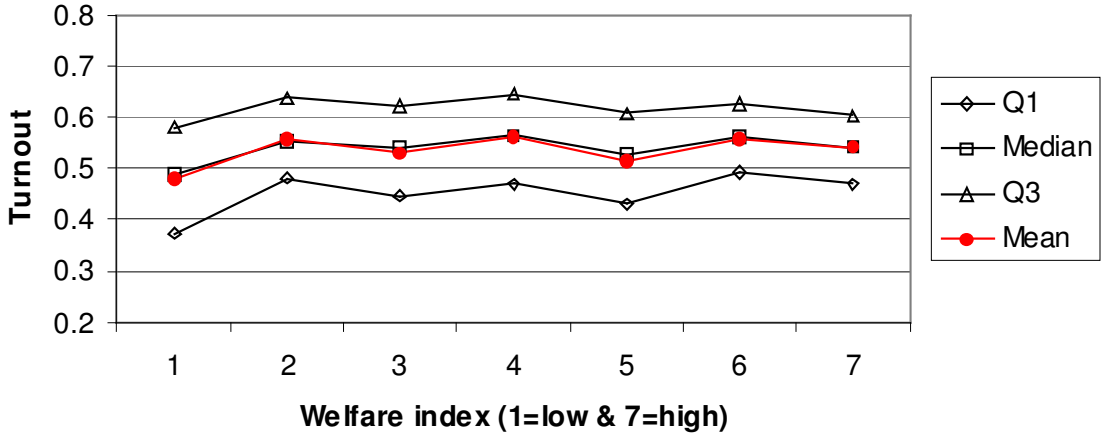


Figure 3.6- Turnout by level of welfare in the 2000 legislative election (lower chamber MR)

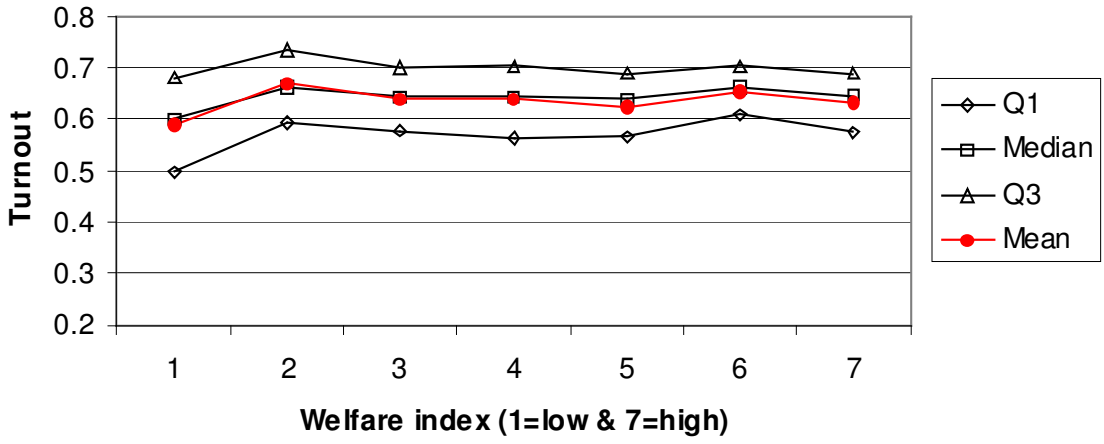
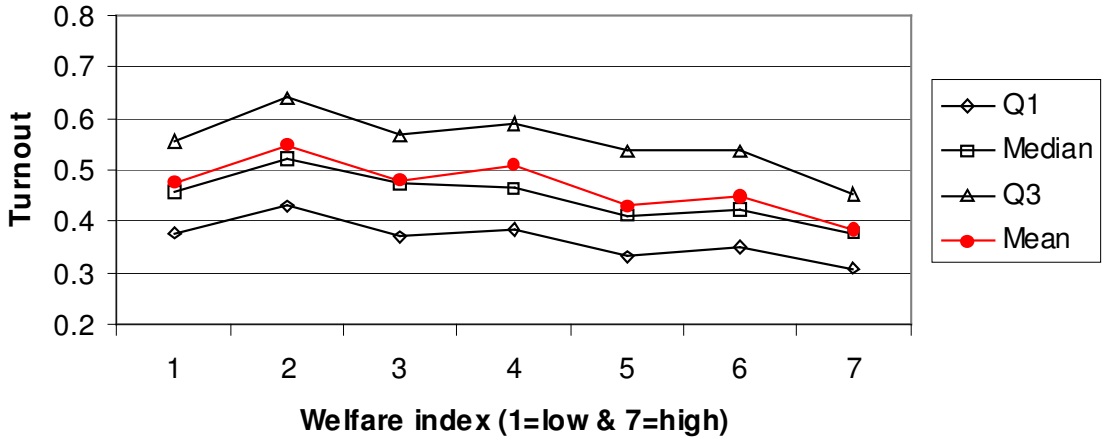


Figure 3.7- Turnout by level of welfare in the 2003 legislative election (lower chamber MR)



To further comprehend the electoral behavior by SES, tables 3.2, 3.3 and 3.4 provide a summary of the percent changes in turnout between different midterm elections. Between 1991 and 1997, turnout diminished more in poorer communities when compared to richer ones. While turnout fell more than 10% in 43.16% of the poorest municipalities (type 1), it only diminished accordingly in 13.56% percent of municipalities type 7. Additionally, turnout increased at least 10% in 40.68% of the richest municipalities, while an increase of that magnitude was only registered in 34.74% of the poorest ones. Changes in turnout during that period of time favored richer groups.

In contrast, between 1997 and 2003, the tendency was reversed such that 83.9% of the richest municipalities experienced a reduction in turnout of 10% or more whereas this only occurred in 36.84% of municipalities type 1. Poor constituencies became much more active during this period of time and 37.11% of them increased their turnout by more than 10%. Only 4.66% of the richest municipalities had a turnout increase this significant. Table 6 shows the total change in turnout between 1991 and 2003. The general trend reveals a more drastic decline in electoral participation among rich constituencies and a substantial increase in turnout for poor municipalities. The evidence further proves the weakening role of SES over time and the relative empowerment of poorer groups.

Table 3.2- Change in legislative electoral turnout in Mexico between 1991 and 1997 by level of welfare in municipality

Welfare index (1=low & 7=high)	Percent change in electoral turnout between 1991 and 1997					
	change<-10%	-10%<=change<-5%	-5%<=change<=5%	5%<change<=10%	10%<change	Total
1	43.16	5.79	11.05	5.26	34.74	380
2	26.96	6.48	13.31	6.83	46.42	293
3	32.65	6.12	9.91	6.12	45.19	343
4	30.62	7.49	14.56	9.42	37.9	467
5	28.4	7.51	14.32	10.56	39.2	426
6	18.6	8.31	19.27	7.64	46.18	301
7	13.56	11.86	22.88	11.02	40.68	236
Total	28.9	7.44	14.55	8.14	40.96	2446

Table 3.3- Change in legislative electoral turnout in Mexico between 1997 and 2003 by level of welfare in municipality

Welfare index (1=low & 7=high)	Percent change in electoral turnout between 1997 and 2003					
	change<-10%	-10%<=change<-5%	-5%<=change<=5%	5%<change<=10%	10%<change	Total
1	36.84	8.68	10.26	7.11	37.11	380
2	39.93	9.56	13.31	7.17	30.03	293
3	53.06	10.2	10.5	4.37	21.87	343
4	54.18	6.42	11.35	4.93	23.13	467
5	65.73	6.34	13.38	5.16	9.39	426
6	68.77	5.98	7.97	6.31	10.96	301
7	83.9	5.08	5.08	1.27	4.66	236
Total	56.3	7.48	10.63	5.31	20.28	2446

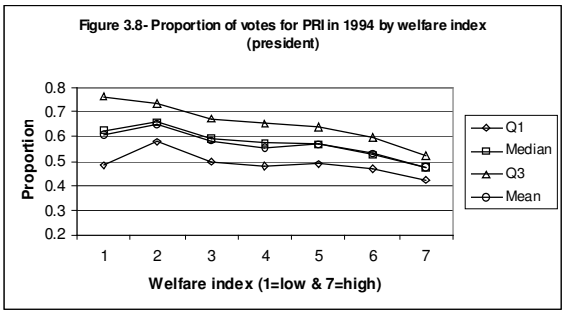
Table 3.4- Change in legislative electoral turnout in Mexico between 1991 and 2003 by level of welfare in municipality

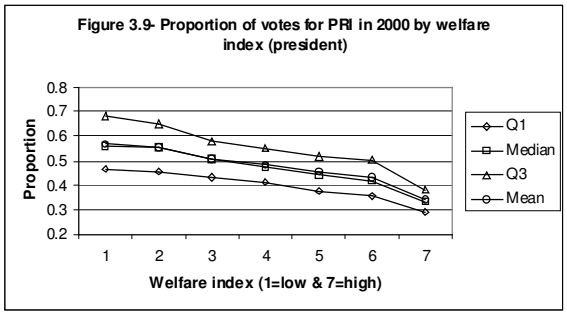
Welfare index (1=low & 7=high)	Percent change in electoral turnout between 1991 and 2003					
	change<-10%	-10%<=change<-5%	-5%<=change<=5%	5%<change<=10%	10%<change	Total
1	48.68	3.68	8.42	3.16	36.05	380
2	39.93	3.07	9.9	5.46	41.64	293
3	48.1	4.96	11.66	6.12	29.15	343
4	53.1	5.78	10.28	3.85	26.98	467
5	57.04	5.16	9.39	5.16	23.24	426
6	58.47	5.32	7.97	3.99	24.25	301
7	72.46	2.97	5.51	2.97	16.1	236
Total	53.35	4.58	9.24	4.42	28.41	2446

III.2. Socio-Economic Status and Partisanship

III.2.1. Presidential Elections: 1994 and 2000

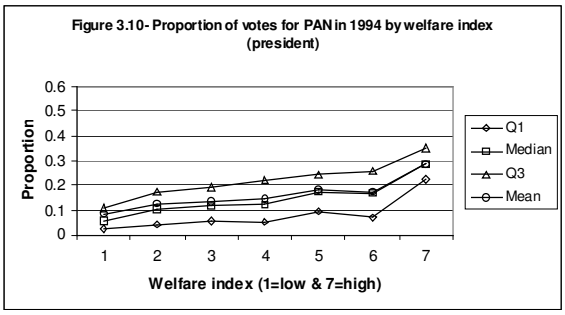
In this section of the chapter, I will analyze the relationship between SES and partisanship. In the past, many studies have revealed that poor constituencies were more prone to vote for the ruling PRI (González Casanova, 1965; Ames, 1970). In addition, politicians and journalists often assumed that the stronghold of the PRI was in the poorest regions. Evidence from the 1994 and 2000 presidential elections reveal that poor constituencies are still powerful supporters of the PRI. However, it is important to note that on average, poor municipalities voted much less for the PRI in 2000 when compared to 1994. As graphs 3a and 3b reveal, in 1994 the PRI won by a margin of more than 60% in half of the poorest municipalities—those with welfare indexes of 1 and 2. Nonetheless, by 2000, the PRI obtained less than 60% in half of the same municipalities. In general terms, the negative relationship between levels of welfare and support for the PRI are clearly shown in figures 3.8 and 3.9.

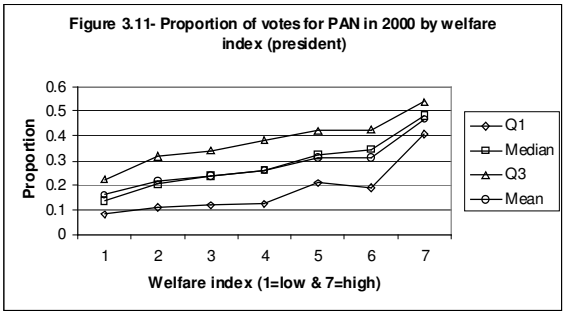


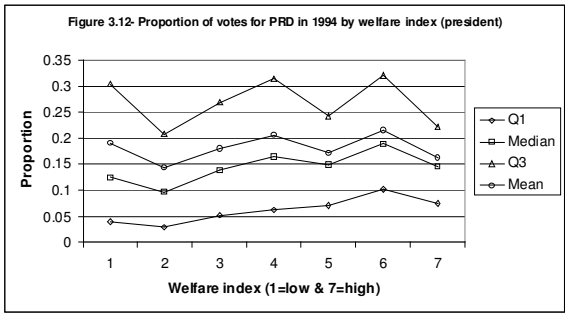


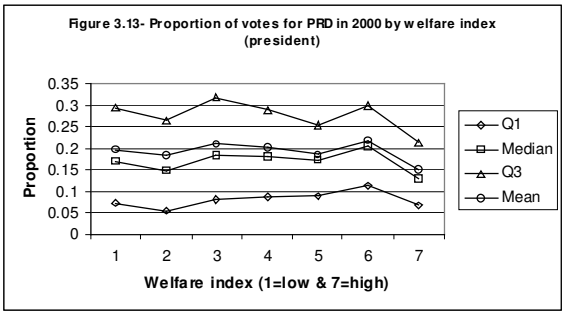
On the other hand, the support for the center-right PAN increased in poor municipalities. Between the 1994 and the 2000 elections, support for the PAN increased ten percentage points in

half of the poorest municipalities. Figures 3.10 and 3.11 show a general positive relationship between increasing levels of welfare and support for the PAN. Interestingly, the left-wing party—the PRD—does not seem to get its support from any particular socio-economic group in either election. The level of welfare of the municipalities does not seem to be a good predictor of PRD support (figures 3.12 and 3.13).









III.2.2. Legislative Elections: 1991-2003

The analysis of the support of the PRI according to municipalities' SES status, clearly reveals that poorer municipalities have voted systematically more for the PRI throughout the years. Yet,

a detailed observation of the electoral patterns reveals that lower SES constitutencies' support for the PRI has been vanishing election after election since 1991. Figures 3.14 through 3.18 clearly depict this gradual decrease in support for the PRI. Other SES groups have also registered a decrease in PRI support but the change is not as drastic as it has been for impoverished constituencies. For instance, in 1991, the support for the PRI in the poorest municipalities (level 1) was on average 81.4%. By 1997, this support had decreased to 56.9% and then plummeted to 49.4% in 2003. Municipalities with next to average SES went from a 73.2% support for the PRI in 1991, to 49.1% in 1997 and 45.1% in 2003. The decrease in PRI support in the richest municipalities has not been as striking but it is still quite large, falling from 59% in 1991 to 37.9% in 1997 and finally 37.3% in 2003.

Interestingly, in contrast to other municipalities, the support for the PRI in the richest municipalities did not diminish as considerably as it did in other constituencies. Finally, it is worth underlining the sharp contrast observed in this period of time. In 1991, poor municipalities registered an 81.4% support for the PRI, while in the richest municipalities, this party only obtained 49% of the vote. At the time, the SES gap in PRI support was greater than 30%. By 2003, only 59% of the poorest municipalities voted for the PRI versus 37.3% PRI support in the richest municipalities. The SES gap then was down to 22%.

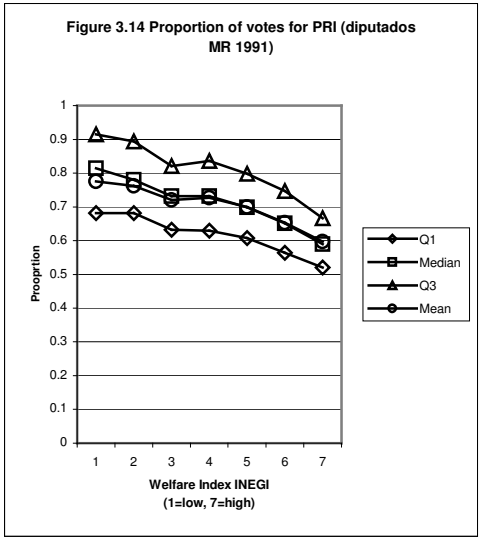


Figure 3.14 Proportion of votes for PRI (diputados MR 1991)
Proportion
Welfare Index INEGI
(1=low, 7=high)
Q1
Median
Q3
Mean

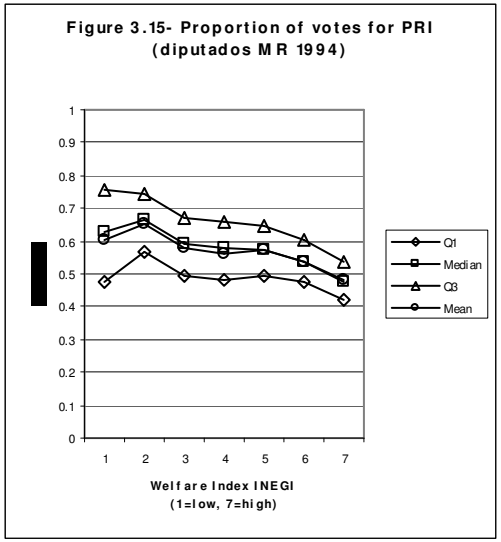


Figure 3.15- Proportion of votes for PRI (diputados MR 1994)
Welfare Index INEGI
(1=low, 7=high)
Q1
Median
Q3
Mean

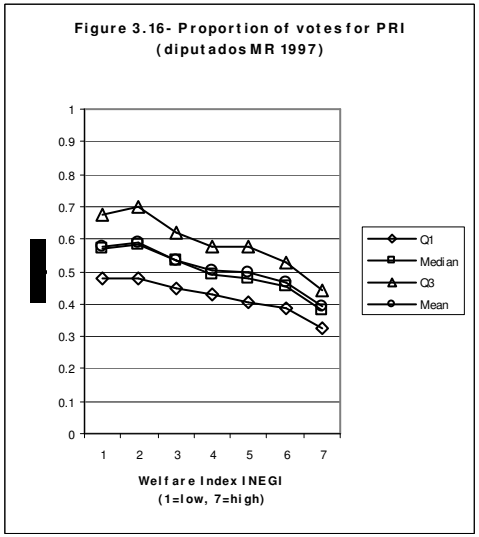


Figure 3.16- Proportion of votes for PRI (diputados MR 1997)
Welfare Index INEGI
(1=low, 7=high)
Q1
Median
Q3
Mean

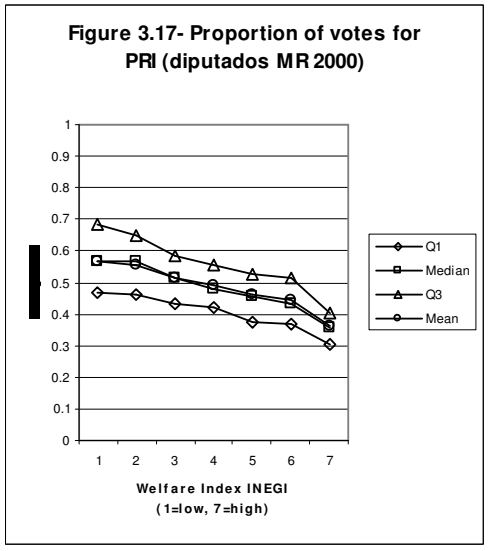


Figure 3.17- Proportion of votes for PRI (diputados MR 2000)
Welfare Index INEGI
(1=low, 7=high)
Q1
Median
Q3
Mean

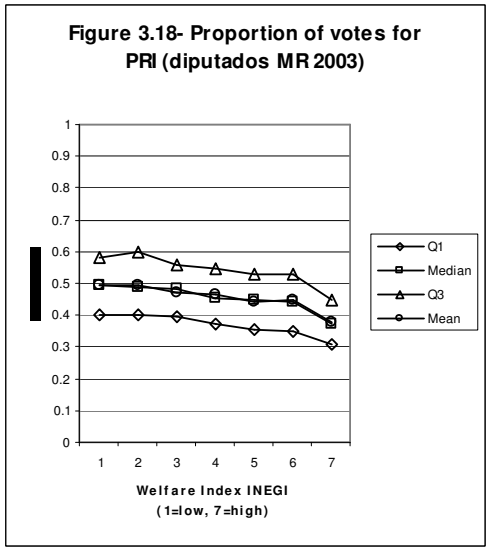


Figure 3.18- Proportion of votes for PRI (diputados MR 2003)
Welfare Index INEGI
(1=low, 7=high)
Q1
Median
Q3
Mean

According to the analysis performed for the legislative elections since 1991, the support for the PAN is positively related to higher SES. Overall the PAN has been capturing more votes in the last decade and a half. As figures 3.19 through 3.23 depict, the proportion of votes obtained by this party has shifted upwards since 1991. The richest municipalities in the country have voted consistently more for the PAN than any other constituencies except in 2000. Interestingly, in that election, the support for the PAN fell considerably in the richest municipalities. When analyzing the information from both presidential and legislative elections for that year we notice that municipalities 7 voted on average 46.6% for the PAN on the presidential ballots but only 17.2% for the legislative. This observation suggests that citizens voted strategically to promote more checks and balances through the strengthening of a divided government.

The votes that the PAN lost for the legislative among the richest constituencies went for the PRD as shown in figure 3.27. In 2000, municipalities 7 only cast on average 15.1% of their vote for the PRD in the presidential election. Nonetheless, these same municipalities voted 41.3% for the PRD in the legislative ballots. This phenomenon is exactly opposite to what we described happened for the PAN. One interesting feature is that municipalities 6 which are quite prosperous but not the richest ones consistently vote more than any other constituency for the PRD (see figures 3.24 through 3.28). Aside from this observation, it is hard to find a clear relationship between SES and vote for the PRD.

Figure 3.19- Proportion of votes for PAN (diputados MR 1991)

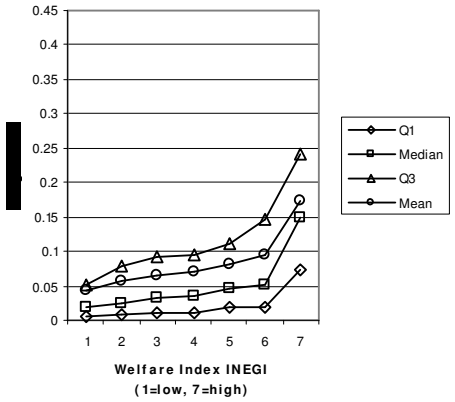


Figure 3.20- Proportion of votes for PAN (diputados MR 1994)

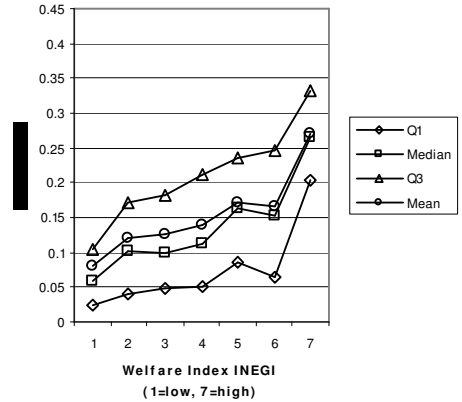


Figure 3.21- Proportion of votes for PAN (diputados MR 1997)

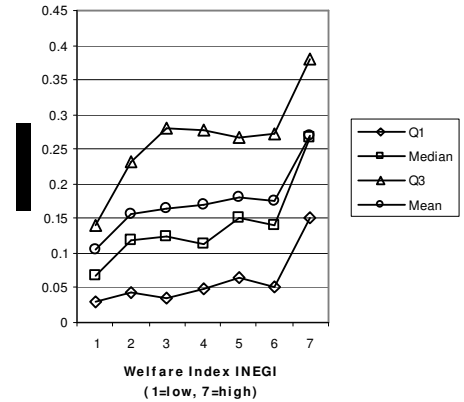


Figure 3.22- Proportion votes for PAN (diputados MR 2000)

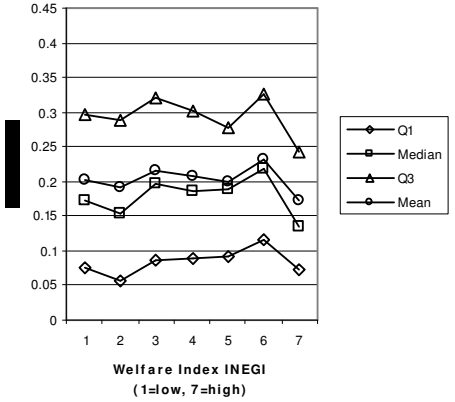


Figure 3.23- Proportion votes for PAN (diputados MR 2003)

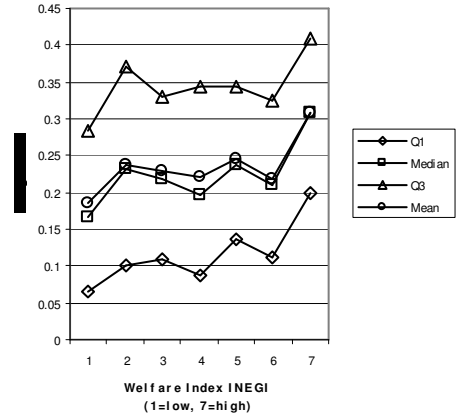


Figure 3.24- Proportion of votes for PRD (diputados MR 1991)

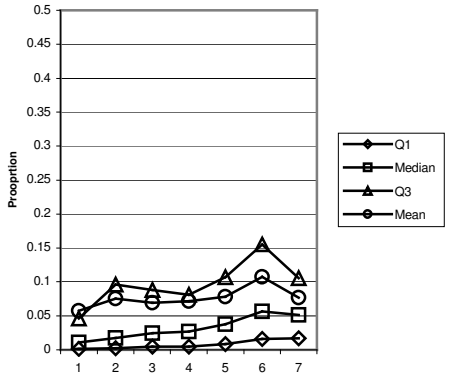


Figure 3.25- Proportion of votes for PRD (diputados MR 1994)

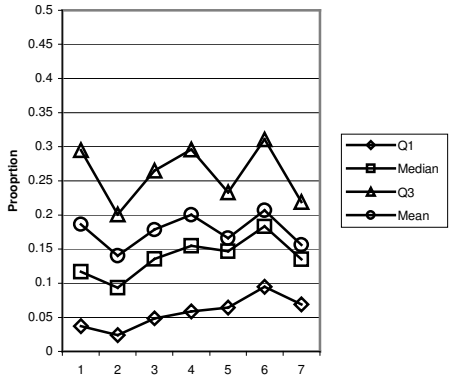


Figure 3.26- Proportion of votes for PRD (diputados MR 1997)

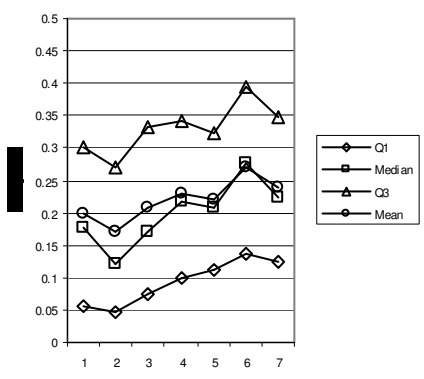


Figure 3.27- Proportion of votes for PRD (diputados MR 2000)

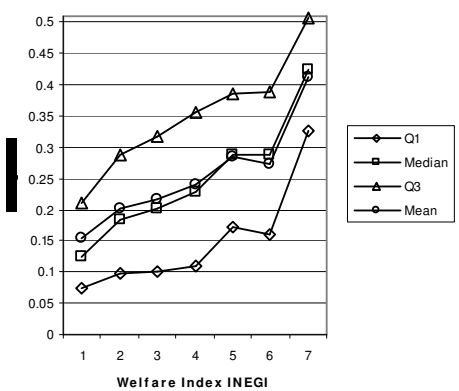
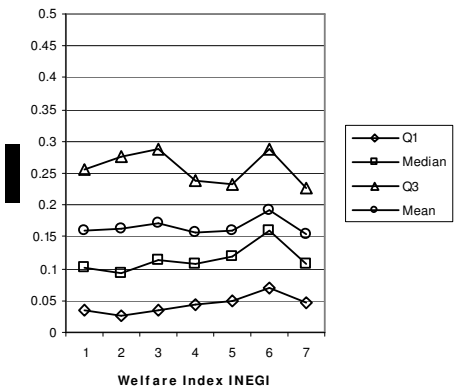


Figure 3.28- Proportion of votes for PRD (diputados MR 2003)



III.3. Regression Analysis

The following sections present several OLS models. The first regressions for presidential and legislative elections use dummy variables for the different levels of welfare in the municipalities. In these models we analyze turnout by election year as the output variable, and we find similar conclusions to the previous analyses and corroborate the patterns identified. Secondly, I show the results of the regressions that identify the role of different variables such as education, income, age, occupation, urbanization and the percent of inhabitants that speak an indigenous language on turnout.

III.3.1. Presidential Elections

In general for 1994, we observe that as the level of welfare of the municipalities increases, the turnout also increases (table 3.5). On average, the municipalities type 1 are almost five percent less likely to vote than municipalities type 7. As welfare levels in the municipalities increase the difference against type 7 municipalities diminishes such that type 5 municipalities are only slightly less prone to vote than municipalities type 7 and while type 6 municipalities are more likely to vote than their richest counterparts, the coefficient of the regression has low statistical significance. In the 2000 election, on average municipalities with lower levels of welfare tend to vote more than the richest ones (type 7). Nonetheless, the most marginalized municipalities tend to vote more than the richest ones. This finding is coherent with previous results presented throughout this chapter. Municipalities type 5 are also slightly more likely to vote more than municipalities 7 but the regression coefficient has low statistical significance.

Table 3.5- OLS models by year of election, output variable: Turnout for president and congress

	President				Legislative									
	Year				Year									
	1994		2000		1991		1994		1997		2000		2003	
Covariate	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Intercept	-0.1147	0.0000	0.6361	0.0000	0.5215	0.0000	0.7279	0.0000	0.5426	0.0000	0.6322	0.0000	0.3880	0.0000
Dummy=1 if														
INEGI index=1	-0.0467	0.0000	-0.0433	0.0000	0.0179	0.3770	-0.1390	0.0000	-0.0631	0.0010	-0.0431	0.0000	0.0883	0.0000
INEGI index=2	-0.0414	0.0000	0.0339	0.0000	0.0392	0.0540	-0.0680	0.0020	0.0159	0.3840	0.0362	0.0000	0.1610	0.0000
INEGI index=3	-0.0185	0.0000	0.0045	0.5730	0.0202	0.3030	-0.0723	0.0010	-0.0107	0.5530	0.0058	0.4690	0.0932	0.0000
INEGI index=4	-0.0343	0.1160	0.0144	0.1860	0.0562	0.0040	-0.0482	0.0270	0.0188	0.2950	0.0062	0.4530	0.1231	0.0000
INEGI index=5	-0.0056	0.0010	-0.0104	0.1600	-0.0050	0.7940	-0.0590	0.0060	-0.0259	0.1380	-0.0079	0.2860	0.0450	0.0000
INEGI index=6	0.7108	0.6010	0.0192	0.0270	-0.0012	0.9500	-0.0267	0.2230	0.0142	0.4160	0.0235	0.0010	0.0614	0.0000
Number of obs	2405		2405		2389		2376		2399		2404		2395	
Prob > F	0.0000		0.0000			0.0000		0.0000	0.0000		0.0000		0.0000	
R-squared	0.0570		0.0283			0.0160		0.0596	0.0333		0.0389		0.0741	

Note: Omited category INEGI index=7. Robust standard errors were utilized.

Table 3.6- OLS models for presidential elections, output variable: percent turnout in municipality

	1994		2000	
Covariate	Coef.	P>|t|	Coef.	P>|t|
Proportion age 40+	0.1325	0.0300	0.4971	0.0000
Proportion age 5+ with primary or more education: men	-0.1900	0.0020	-0.2995	0.0000
Proportion age 5+ with primary or more education: women	0.4129	0.0000	0.2759	0.0000
Proportion of occupied labor force in primary industries	-0.0050	0.7790	0.0286	0.0940
GDP	-0.0087	0.1600	0.0137	0.0230
Proportion of occupied labor force that earns less than the minimum wage	-0.1224	0.0000	-0.1288	0.0000
Proportion urban	-0.0208	0.0430	0.0065	0.5130
Proportion age 5+ that speaks indigenous language	-0.0402	0.0000	0.0007	0.9440
Intercept	0.7143	0.0000	0.4773	0.0000
N	2366		2391	
Prob > F	0.000		0.000	
R-squared	0.2552		0.1520	

Table 3.7- OLS models for midterm elections, output variable: percent turnout in municipality

	1991		1997		2003	
Variable	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Proportion age 40+	0.2780	0.0010	0.7714	0.0000	0.9667	0.0000
Proportion age 5+ with primary or more education: men	-0.1135	0.2170	-0.4722	0.0000	-0.7900	0.0000
Proportion age 5+ with primary or more education: women	0.1525	0.1430	0.5307	0.0000	0.6312	0.0000
Proportion of occupied labor force in primary industries	0.0399	0.1060	0.0060	0.7490	0.0545	0.0110
GDP	0.0030	0.7310	-0.0012	0.8580	0.0132	0.0730
Proportion of occupied labor force that earns less than the minimum wage	-0.0199	0.4940	-0.1611	0.0000	-0.1250	0.0000
Proportion urban	-0.0298	0.0350	-0.0410	0.0000	-0.0408	0.0010
Proportion age 5+ that speaks indigenous language	0.0536	0.0000	-0.0069	0.5390	0.0373	0.0020
Intercept	0.4309	0.0000	0.4645	0.0000	0.2684	0.0000
N	2374		2391		2365	
Prob > F	0.000		0.000		0.000	
R-squared	0.0290		0.2165		0.1759	

III.3.2. Legislative Elections

The results for the legislative elections tend to confirm the conclusions previously presented. In 1994 there is a clear positive relation between socioeconomic status and turnout. The relationship is inconclusive for 1997 although most coefficients had low statistical significance. In the 1991, 2000 and 2003 elections, there seems to be a negative connection between levels of welfare and electoral participation quite similar to the one previously described in this chapter.

III.3.3. The Effect of Different Variables on Turnout in Mexican Presidential and Legislative Elections.

The regression analysis on tables 3.6 and 3.7 allows for a detailed effect of specific socioeconomic indicators on turnout. We can see that age is positively related to turnout and a larger proportion of inhabitants 40 years old or more in a municipality increases its electoral participation. It is interesting to underline that this factor is becoming increasingly relevant especially for midterm elections. A surprising finding of this regression analysis is that higher levels of educational attainment for males have a negative impact on overall participation while it has the opposite effect for women. As the proportion of primary educated males in a municipality increases, turnout diminishes but whenever a larger segment of the female population reaches this level of education, turnout improves.

The proportion of occupied labor force in primary industries tends to promote turnout for all presidential and midterm elections except for 1994 when the estimator is not statistically significant[8]. Accordingly to the expectations of this chapter, whenever the percentage of the population that earns less than the minimum wage is large we observe a lower electoral participation. This finding is coherent with other conclusions that show that the most impoverished municipalities are not very dynamic in electoral terms and that those that report the highest turnout are next to the most marginalized ones in our scale of measurement.

Urbanization decreases turnout in all elections except in the case of the 2000 presidential race where the estimator is not statistically significant. Finally, it is difficult to establish a clear-cut pattern when analyzing the effect of large indigenous populations. In some cases, this variable affects positively turnout while in other elections such as the 1994 presidential one its effect is negative.

III.4. Discussion of the Results

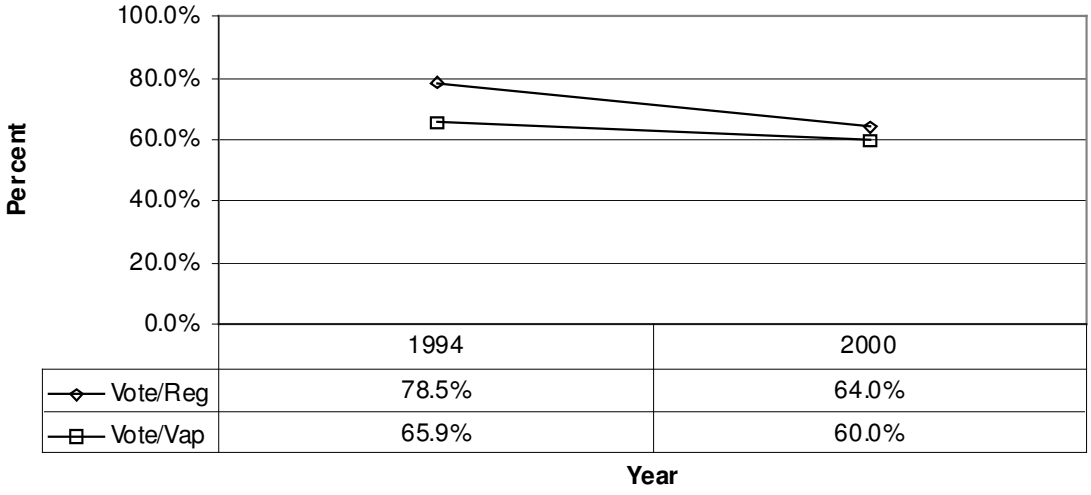
The findings of this chapter contradict the common wisdom and the general predictions of the comparative literature. They are also quite different from the results obtained by Klesner and Lawson in their recent study of Mexican electoral behavior. The authors' conclusions were reached by considering electoral participation as the total votes in presidential elections divided by the registered electorate. On the other hand, in midterm elections, participation was also considered as total votes in the federal deputy election divided by the registered electorate.

[8] It is worth mentioning that the estimator for this variable is not statistically significant for 1997 either and that its significance is low in the case of the 1991 midterm election.

In this chapter, the definition of turnout adopted is the equivalent of total votes in presidential and legislative elections divided by the voting age population (VAP), which includes all citizens above the legal voting age. Using the VAP instead of the registered electorate may provide a clearer picture of participation as it can underline problems with registration or it can signal that individuals are not interested, intimidated or face too many difficulties in order to register. There are significant differences in turnout when considering different definitions as the following figures 3.29 and 3.30 show.

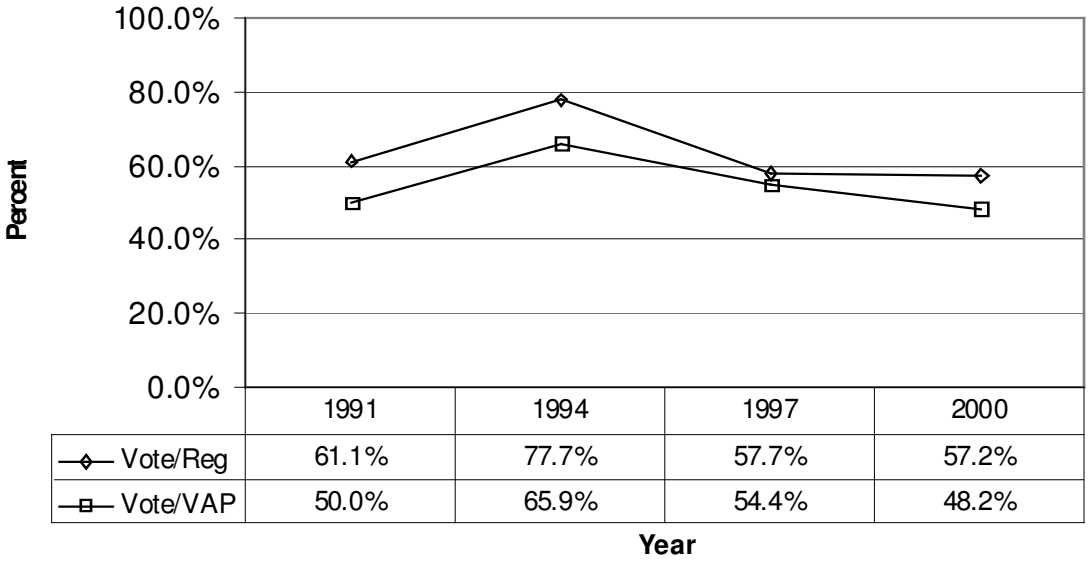
Klesner and Lawson's analysis leads them to conclude that given that the voter is registered and that (s)he belongs to a higher SES constituency, (s)he will have a higher probability to vote on election day. On the other hand, this study allows us to determine that given that the citizen meets the age requirement to vote, higher SES does not necessarily imply higher turnout. By adopting an extended definition of turnout that considers the overall voting age population, we can avoid bringing into the analysis the selection bias that exists in the registration process itself. Research should not only focus on registered voters. Assessing the reasons for non-registration can be as theoretically interesting as understanding the causal mechanisms that lead to low turnout and understanding the relationship between SES and turnout.

Figure 3.29- Percent of registered voters and voting age population (VAP) in presidential elections



Source: International Institute for Democracy and Electoral Assistance, www.idea.int

Figure 3.30- Percent of registered voters and voting age population (VAP) in legislative elections



Source: International Institute for Democracy and Electoral Assistance, www.idea.int

The theoretical links to explain the positive association of turnout and SES are inconclusive. While several scholars have attempted to provide a compelling argument, Verba, Schlozman, and Brady (1995) suggest that "the SES model lacks a solid theoretical interpretation as to why those high on the socioeconomic scale are so unambiguously overrepresented in participatory input (p. 525)." Explaining the relationship between higher SES and higher turnout—or as in this chapter the lack of association— is a difficult analytical endeavor.

Mobilization theories have provided interesting hypotheses that help us understand changes in turnout that take place even when SES does not vary. According to this approach, politicians tend to mobilize potential voters that belong to well connected and well coordinated organizations with high levels of social capital as was the case of Christians Evangelical in the U.S. during the 2004 general election. In the case of Mexico, social associations revolved for many years around the official party structure. Through committees and regional political bosses, the PRI organized unions, peasants and other social actors and gained their political support in the ballots. Poorer individuals tended to rely more heavily on organizations that were coordinated by the PRI's structure, and thus represented the electoral base of the party whether it was through conviction, cooptation or fraud.

Since the 1970s, the PRI began to loose its traditional grip on social organizations. Largely due to the economic crisis of the 1980s and a transformation of the state model, the PRI had to reduce the direct and indirect spending that traditionally lubricated the voting machine and mobilized people throughout the country, but still remained the party that could reach the poorest

groups. In 1988, the PRI had a serious contender for the presidency by a former member of the party who used some of the PRI's traditional associations to mobilize support, such as the oil workers union. In an interview I conducted with Cuauhtémoc Cárdenas, he declared that one of the main strategies of the PRD was to use the PRI's corporatist structure to foster votes and political support for his party.[9] Hence, other political parties began to court associations that had been in the past monopolized by the PRI.

Still by 1991, the PRI obtained on average 78% of the vote of the poorest municipalities, compared to less than 60% of the richest ones (see figure 3a). Poorer municipalities have remained the PRI's stronghold up until the last election in 2003, but the party's dominance has gradually fallen giving way to the PAN and PRD. As political competition has grown, all three main parties have strategically targeted constituents centrally positioned in social networks and with high levels of social capital. In many consolidated democracies such as the US those voters tend to belong to higher SES, yet in Mexico, given the legacy of the mobilization structure established by the PRI through corporatism, voters targeted tend to be less privileged economically. As the PRI lost its coercive power and other parties gained access to resources and mass communication means, many association leaders began to negotiate with politicians from different walks of life in search for better options. This phenomenon can partially explain the relative strengthening of lower SES constituencies in the political arena.

[9] Interview with Cuauhtémoc Cárdenas conducted by Irina Alberro and Max Henderson, April 2004, Chicago. Cuauhtémoc Cárdemas was a presidential contenders in 1988, 1994 and 2000.

While mobilization can explain to some degree the turnout of poorer groups, it is certainly a puzzle why richer groups have become so disenchanted with elections. The turnout of richer municipalities has systematically fallen since 1991. In type 7 municipalities, turnout in midterm elections fell on average from 52.1% in 1991 to 38.8% in 2003 (see figure 2.a through 2.e). On general elections, turnout fell from 71% in 1994 to 63.3% in 2000 (see figures 1.a and 1.b). One possible explanation is that rich people feel less vulnerable to political shifts because they have more domestic and international safety nets and therefore have less motivation to vote. In the 1994 election, when higher SES was clearly associated with more turnout, the rich may have been more prone to vote in relative terms given the risks at stake, including social uprisings, political assassinations, and the permanence of NAFTA.

In an interview I conducted in 2000, Esteban Moctezuma identified three different Mexicos[10]. According to his perspective, there is a powerful segment of the Mexican population that is geared towards the international markets. Their economic stability depends on Mexico's assured access to the global economy and the dynamism of the export sector. If this perception is correct, we could expect that this group of rich individuals were the ones attending the voting booths in 1994 to ensure the survival of NAFTA as well as the deepening of a liberalized market economy close to their own interests. Not surprisingly, over three quarters of them voted in favor of the PRI and the PAN.

[10] Interview with Esteban Moctezuma, conducted by Irina Alberro and Max Henderson, December 2000, Mexico City. Esteban Moctezuma: former secretary of the interior, secretary of social development and head campaign manager for the presidential elections of the PRI candidates in 1994 and 2000, Ernesto Zedillo and Francisco Labastida respectively.

The findings of this study challenge the common idea that poor constituencies are less active in electoral terms than rich constituencies. A detailed analysis of the SES composition of the Mexican electorate in the two past presidential elections as well as the legislative elections since 1991 clearly reveals that marginalized municipalities are increasingly decisive in electoral terms. This change may have a profound implication on the representative nature of the democratic system in Mexico, by creating a bias in favor of the unprivileged groups. Given the case that politicians need to obtain the support of the most impoverished constituencies in order to win elections, we could expect redistributive processes towards marginalized and poor groups in society to take place and help reduce the extreme inequalities that Mexico has experienced in the past decades.

Large segments of the Mexican population live in poverty. According to the most recent data from the World Bank, 8 % of the population in Mexico lives under conditions of extreme poverty.[11] Redistribution processes have to be analyzed largely as a political phenomenon. Common sense suggests that democratic regimes are more responsive to the needs of the population, however in order to fully assess the possibility that redistributive policies will be adopted it is necessary to understand what groups in society are pivotal voters. Although some institutions such as the World Bank have encouraged countries to adopt democratic regimes in order to improve the conditions of the poorest groups in society, the mechanics of this process have not been explored in a detailed manner. Responsiveness and accountability go hand in hand with participation. Active constituencies in electoral terms can expect to hold politicians more

[11] The percentages reflect the proportion of the population living with less than one dollar a day in 1985 prices adjusted for purchasing power parity. The information is available from the World Bank, 2003 World Development Indicators.

accountable for their decisions than inactive voters. In that sense, this work may contribute to our understanding of the public policy implications of this electoral dynamism.

CHAPTER FOUR

THE AMERICAN CASE:

AN ANALYSIS OF THE RELATIONSHIP BETWEEN SOCIOECONOMIC STATUS AND TURNOUT IN PRESIDENTIAL ELECTIONS 1980-2004

The purpose of this chapter is to analyze the evolution of the role of socioeconomic variables in explaining turnout in the United States since the 1980 presidential election. Most of the literature for the US has found that socioeconomic status is positively related to turnout such that higher levels of income and education lead to greater electoral participation. Most studies have relied on public opinion polls that obviously take individuals as the main unit analysis. This study seeks to complement the work previously done by providing an aggregate approach where counties are the main unit of analysis.

The findings reveal that turnout fell for all socioeconomic groups but it diminished more than proportionally for the poorest counties. The relationship between SES and turnout is prevalent throughout the years but its importance has been growing since 1980. The gap in turnout between counties with the highest per capita personal income and those with the lowest has increased significantly in presidential and legislative elections alike. When looking at education, it is also clear that differences in turnout between counties with the lowest percentage of college educated population and counties with the highest percentage have augmented since 1980. This chapter strengthens the findings of previous studies that used public opinion polls and

concluded that there was a positive relationship between income, education and the likelihood of participating in elections. Aggregate data at the county level used in this study also reveal the positive relationship between socioeconomic variables and turnout and provides an additional look at changes in this relationship throughout the years. Not only is SES highly correlated with electoral participation in the United States but it is increasingly relevant to understand the determinants of political participation.

IV.1. The American Case

The US is a majoritarian democracy with a single member district plurality or majority system. Plurality and majority single member district methods are winner-take-all methods, which imply that the candidate with the largest number of votes wins while all the other candidates remain unrepresented. The electoral formula in the US is commonly know as the "first past the post system," that is winners are the candidates with the largest number of votes, but not necessarily a majority. This kind of electoral system is a clear reflection of a majoritarian philosophy.

The legislative power is divided into the House of Representatives and the Senate. States are represented in the House proportionally to their population as determined by census. Yet, each state is entitled to a least one representative. As the US population increased, it became untenable to maintain the original constitutional rule that established that there should be no less than one representative for each 30, 000 people. In 1911, the size of the House of Representatives was fixed at 435 members, each of whom serves for two years. To date, the size

remains unchanged. All states except Louisiana use the "first past the post" mechanism.[12] In the case of the Senate, each state is equally represented by two members independently of the size of the population, and as a result, the total membership is 100 members. Senators serve for six years, and elections take place every second year for one third of the seats (a class). Elections are arranged such that both seats from a given state are never contested simultaneously. Almost all states use the first past the post system described previously in which the candidate with a plurality of votes wins. However, Georgia, Louisiana and Washington use a system known as runoff voting, which means that the two candidates with the largest number of votes will compete in a second round. The winner will then be determined on the second ballot.[13]

The election for President and Vice President of the United States is indirect through the Electoral College. On election day, although ballots usually have the names of the presidential candidates, in reality voters choose electors which in turn cast the official votes for these two offices. Plurality rule also applies for the election of President and Vice President such that the winner of the popular vote within a state receives all the state's electoral votes.[14] The number of electors in each state corresponds to the total number of senators—two per state—plus the total number of representatives (435) and three votes for D.C. In general terms, federal employees—including senators and representatives—cannot serve as electors. Yet, elected state officials, party leaders as well as individuals with a political or personal affiliation with a presidential

[12] Louisiana uses runoff voting.
[13] It is important to note that when the number of rounds is unlimited, then the voting method is called elimination ballot.
[14] Maine and Nebraska are the only two states that do not follow this electoral method.

candidate can serve as electors. Candidates must receive at least 270 electoral votes in order to become President and Vice President.

IV.1.1. Data and Methodology

For the purpose of this analysis, I elaborated a data set that allowed me to examine the electoral behavior of different counties from an aggregate perspective. Most of the studies reviewed in this dissertation, which analyze the United States, are based on public opinion surveys. In order to be able to compare the American case with my other main case (Mexico), and to avoid some of the common problems of the public opinion polls such as turnout overrepresentation, I will use socioeconomic indicators for the counties reported in the US Census (1980, 1990 and 2000).

In the case of the counties, the 2000 U.S. Federal Census reports that there were 3,141 registered counties with population ranging from 67 people to over 9.5 million in L.A. County. The average population of these counties was 89,623 and the median was 24,608 for that year.[15] Most of the electoral results for presidential and legislative elections at the county level were obtained from CQ Voting and Elections Collection. In the case of the legislative elections, data for the House of Representatives could not be obtained at the county level and thus I only used data for Senatorial races in this chapter.[16] In the case of the United States, no index of socioeconomic status was used. Instead, variables such as income and education were analyzed

[15] See U.S. Census Bureau website at: http://eire.census.gov/popest/estimates_dataset.php.
[16] Data for the House of Representatives is reported by CQ Voting and Elections Collection only at the district level. Although these results will not be used in the present chapter that takes counties as the unit of analysis, I will compare district data in the next chapter to find out more about the effect of institutional variations on turnout in American and Mexican elections.

separately. Data on per capita personal income at the county level were obtained from National Accounts (BEA).

Counties used for the analysis were those that could be accurately matched across sources where we have electoral, census and income data, and where the estimated turnout was less than 100 percent.[17] The final sample used for the analysis of presidential voting represents 2,975 counties where close to 97 percent of the American population lived in 2000.[18] To estimate the voting age eligible population, the methodology used by the U.S. Bureau of Census to calculate intercensal population was utilized.[19] Given the large number of disenfranchised migrants in the U.S., only citizens of voting age were contemplated. Estimates provided by the U.S. Census Bureau at the county level helped define the size of the voting age eligible populations for the 2002 and 2004 elections.

IV.1.2. Presidential Elections

The effect of income on counties' turnout throughout the past seven presidential elections was analyzed by dividing counties in fifths from the poorest ones to the richest ones according to figures of income per capita. Figures 4.1 through 4.7 show the role of this important variable in explaining changes in turnout since 1980. Each figure also shows four statistical indicators including the first quartile (Q1), the median, the mean and the third quartile (Q3) of each distribution.

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[17] Alaska was completely excluded from the analysis because electoral results are reported at the district rather than the county level.
[18] Given the periodicity of senatorial elections, the sample of counties varies for each biennial cycle.
[19] U.S. Bureau of Census revised on May 24, 2005: http://wonder.cdc.gov/wonder/sci_data/census/inter/type_txt/y8090bur.asp

Figure 4.1- Turnout for president by income in the U.S., 1980

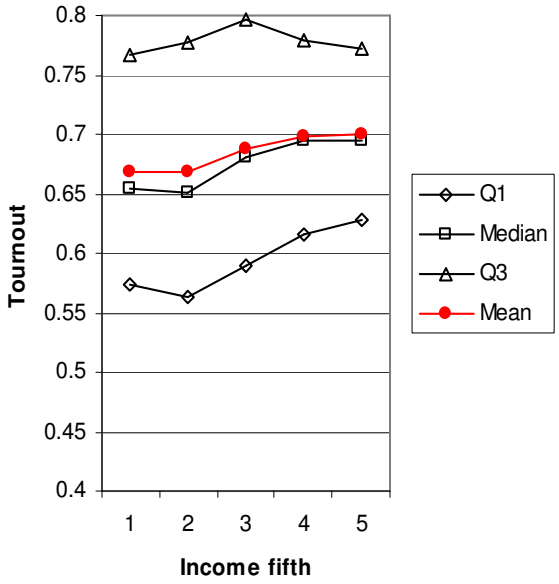


Figure 4.2- Turnout for president by income in the U.S., 1984

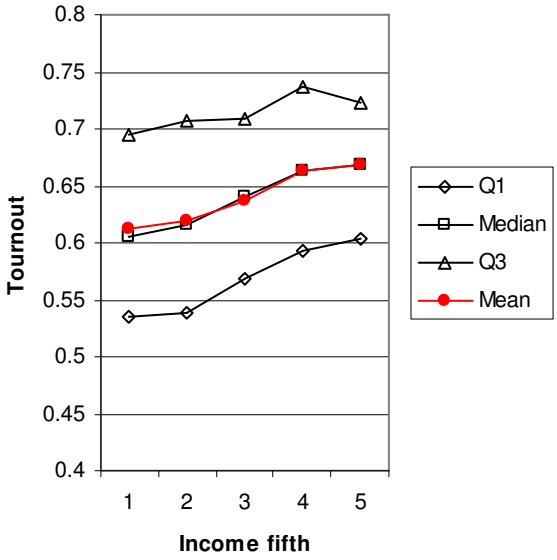


Figure 4.3- Turnout for president by income in the U.S., 1988

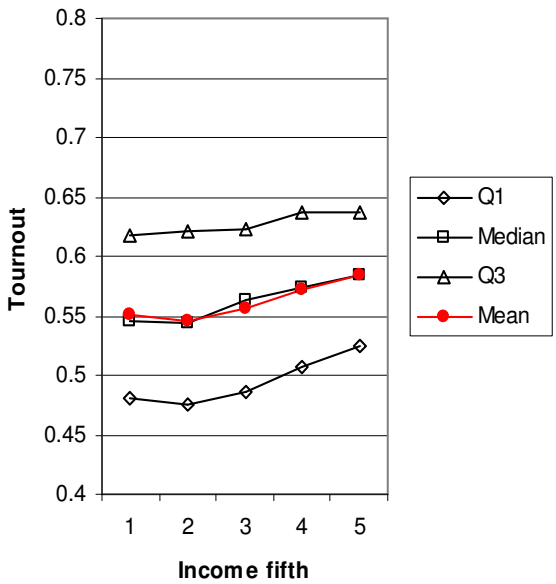
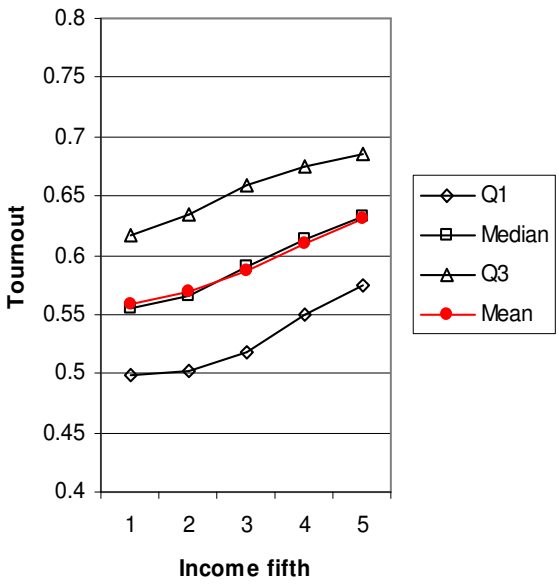


Figure 4.4- Turnout for president by income in the U.S., 1992



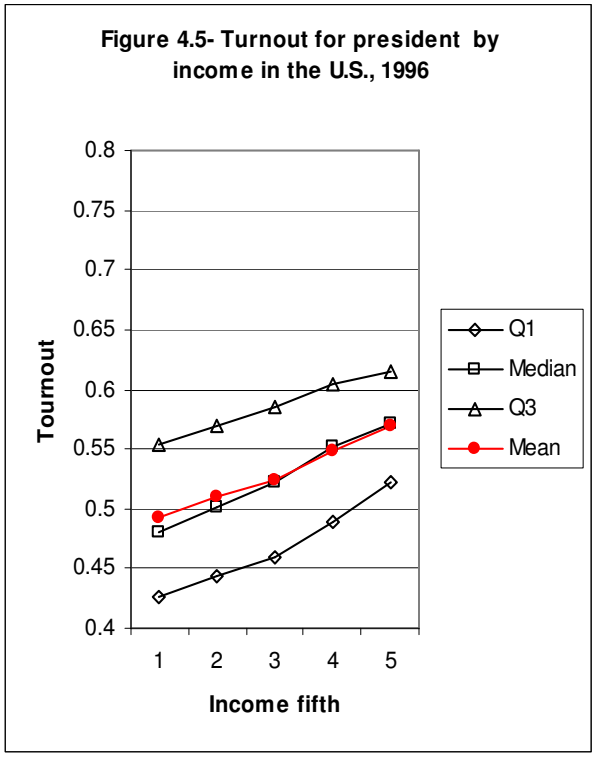


Figure 4.5- Turnout for president by income in the U.S., 1996
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
Tournout
1
2
3
4
5
Income fifth
Q1
Median
Q3
Mean

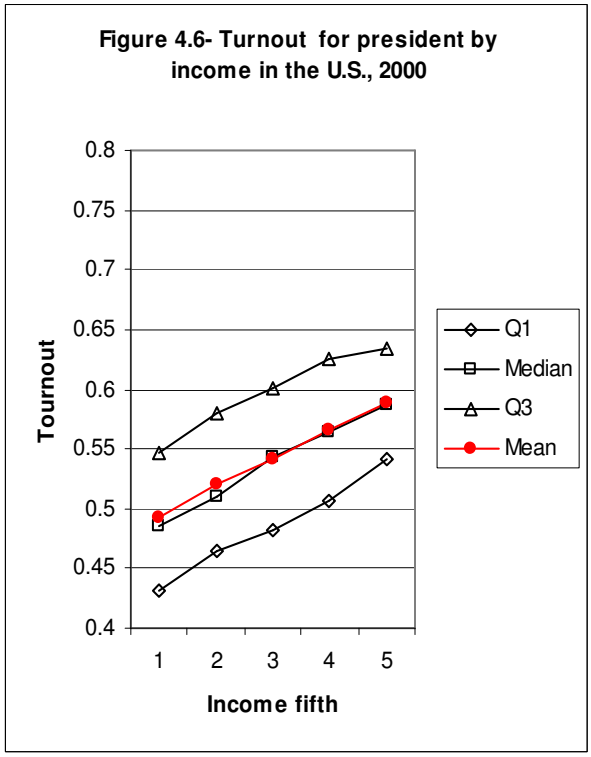


Figure 4.6- Turnout for president by income in the U.S., 2000
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
Tournout
1
2
3
4
5
Income fifth
Q1
Median
Q3
Mean

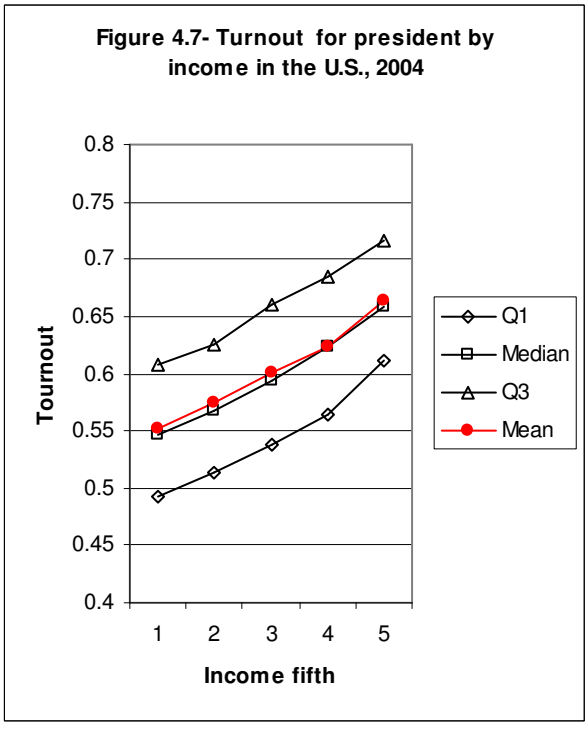


Figure 4.7- Turnout for president by income in the U.S., 2004
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
Tournout
1
2
3
4
5
Income fifth
Q1
Median
Q3
Mean

A positive relationship between income and turnout since the 1980 presidential elections can clearly be identified. Richer counties are on average more prone to have higher levels of turnout than poorer ones. Income is an increasingly determinant variable to explain turnout. Although the connection between these two variables has been always positive, I find that in the 1992 election, the slope of the curve became steeper, meaning that the effect of income on turnout increased. Figures 1.e. and 1.f. reveal that income remained an important explanatory variable for the 1996 and 2000 elections but its effect became even more pronounced in 2004. In this last election the differences in turnout between the poorest and richest counties became larger than in the past. Income has always been an important variable to explain turnout but its significance has clearly increased in the past elections. For instance the slope observed in the 1988 election is small enough to make the graph look relatively flat. Yet, by 2004 the marginal increases in turnout for each income fifth are so significant that the slope is clearly defined. Table 4.1 summarizes the changes that took place during the period analyzed.

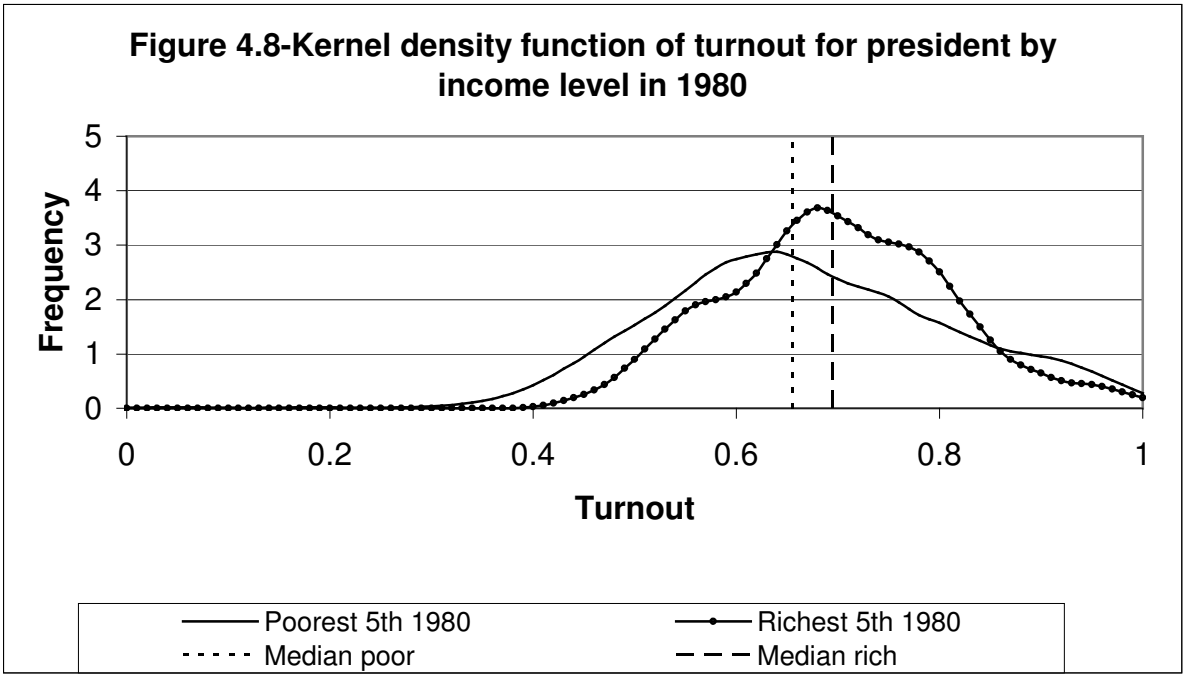
Table 4.1- Turnout by county according to income per capita (presidential elections)

Average Turnout			
	Poorest Fifth	Richest Fifth	% Difference
1980	0.6684	0.6992	4.61%
2004*	0.5518	0.6631	20.17%
% Change	-17.45%	-5.18%	

Median Turnout			
	Poorest Fifth	Richest Fifth	% Difference
1980	0.6548	0.6945	6.06%
2004*	0.5473	0.6588	20.37%
% Change	-16.41%	-5.14%	

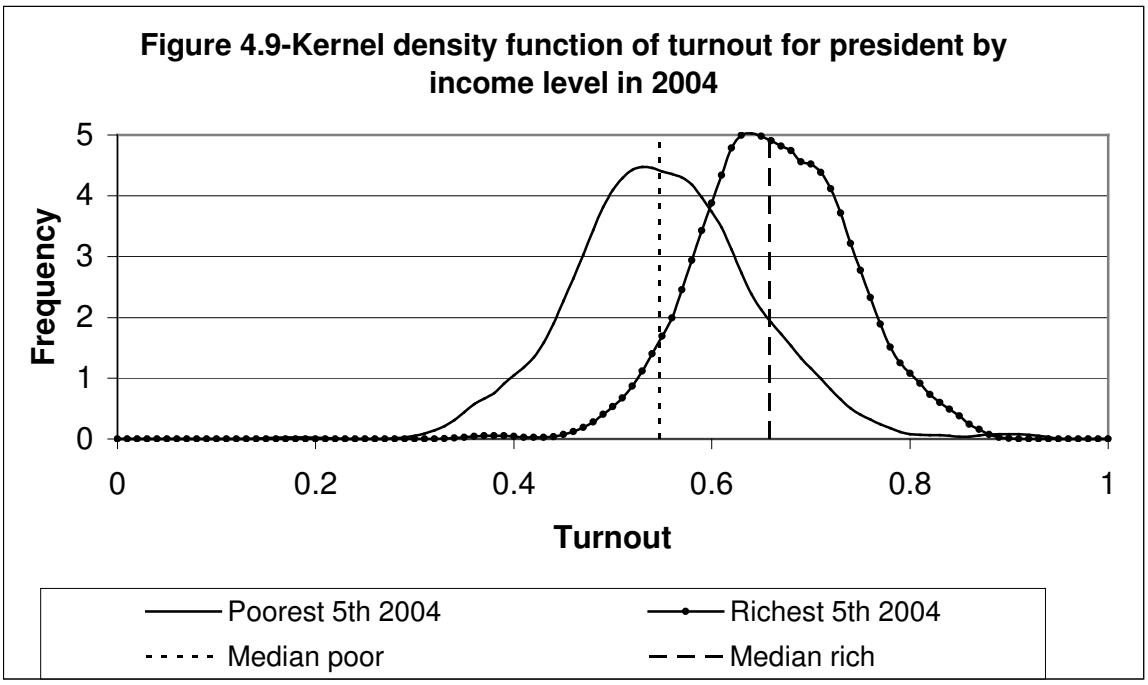
*Although there is a high correlation between counties' levels of income throughout the period analyzed, there was some dynamism such that some of the poorest counties in 1980 may not have been the poorest ones in 2004. For that reason, I calculated the percentage differences taking the 2004 turnout for the 1980 poorest counties. The results did not vary significantly from the results reported.

Turnout fell during the period analyzed for all counties but it diminished more than proportionally for the poorest ones. In the richest counties, electoral participation diminished on average little more than 5% compared to a more drastic reduction of 17.5% for the poorest communities. These differences can also be found in the increasing gap in turnout between rich and poor such that in 1980, the difference in turnout between those two types of counties was 4.6%. Yet, by 2005, rich counties—those with the highest fifth of per capita income—voted on average 20% more than the counties in the lowest fifth of income. These differences are notorious also in terms of the whole distribution and the medians as figures 4.8 and 4.9 below show.



In 1980, the difference in electoral participation between counties in the richest fifth and counties in the lowest one was just over 6% while in 2004, this difference increased and attained 20%. These findings again confirm that income has always been an important determinant of turnout but its relevance is increasing with time. The effect of wealth has been dynamic since the

1980 presidential election and nowadays, counties that belong to the richest fifth are much more active in electoral terms than those who have the lowest fifth income per capita. Note also that the intersection area between the richer and the poorer counties was much smaller in 2004 than in 1980, which means that a much larger proportion of voters in richer counties were casting their votes compared to voters in poorer counties.



Education is the other main variable analyzed at the aggregate level in this section. It has been extensively proven in the literature that higher levels of educational attainment are positively related with higher levels of electoral participation. For the purpose of this chapter, the analysis concentrates on the percentage of the population within counties with college degrees (4 years or more) given that higher levels of education are expected to yield greater turnout.[20] The results for all seven presidential elections since 1980 are presented in the following figures.

[20] The analysis was also conducted taking other measurements of educational attainment such as the percentage of the population within counties with elementary education. Other measurements are also consistent with the conclusions reported in this chapter.

Figure 4.10- Turnout for president by education in the U.S., 1980

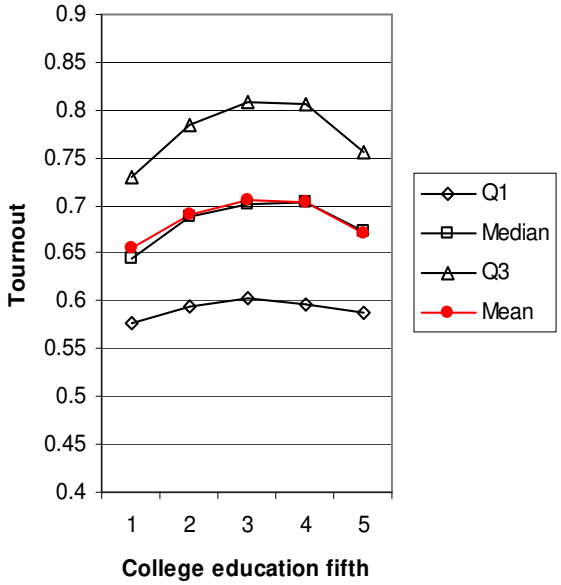


Figure 4.11- Turnout for president by education in the U.S., 1984

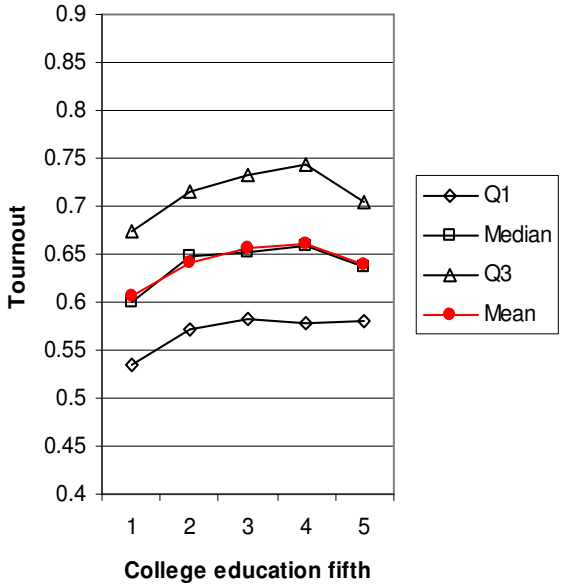


Figure 4.12- Turnout for president by education in the U.S., 1988

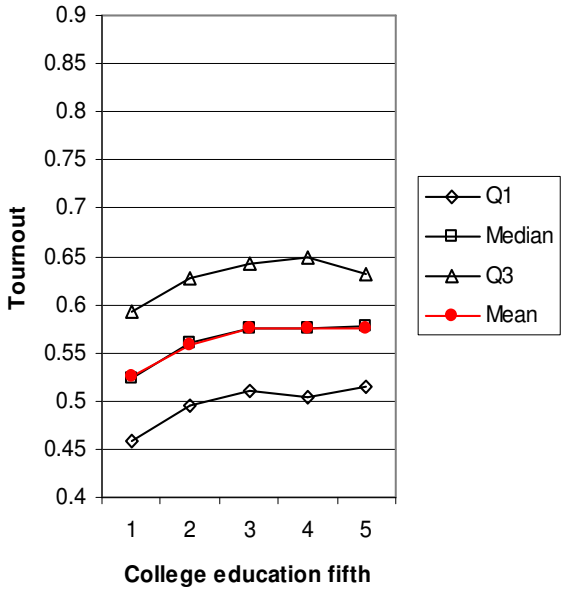


Figure 4.13- Turnout for president by education in the U.S., 1992

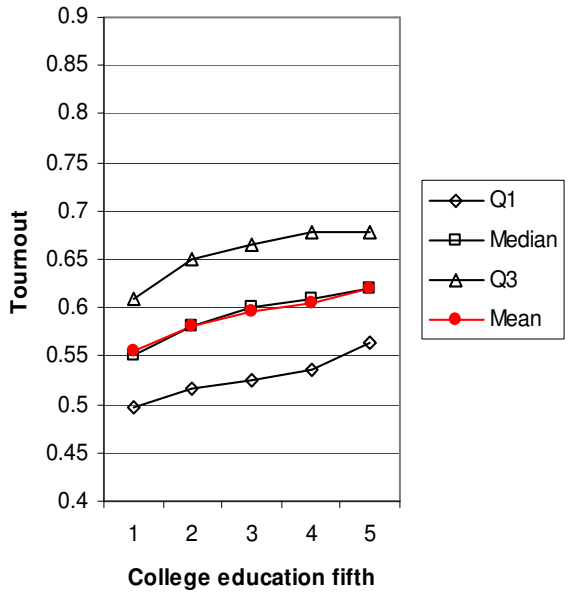


Figure 4.14- Turnout for president by education in the U.S., 1996

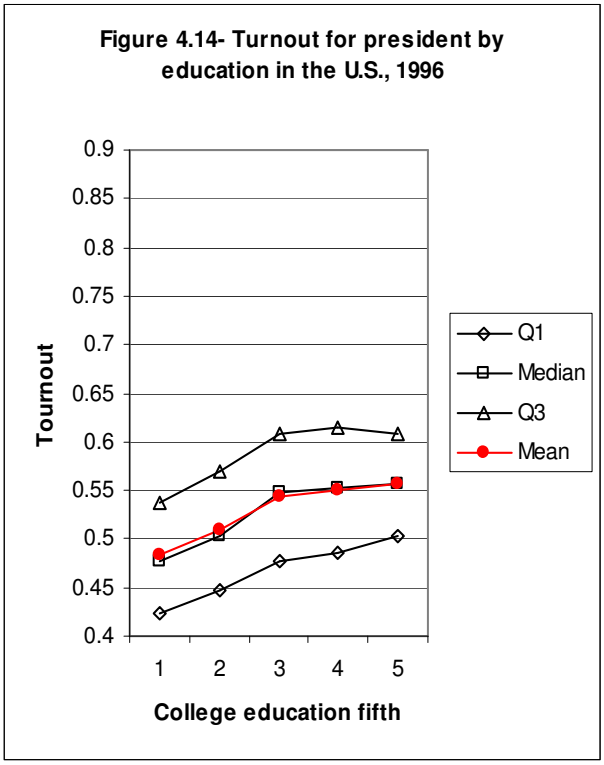


Figure 4.15- Turnout for president by education in the U.S., 2000

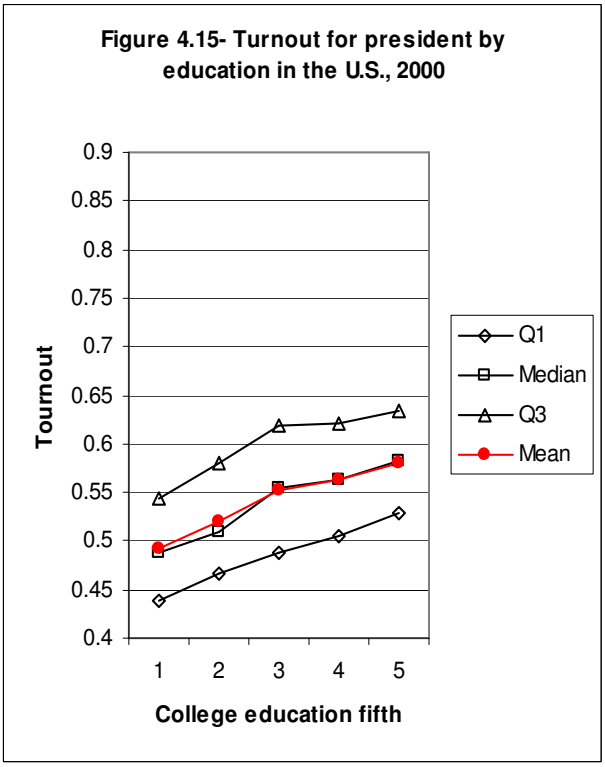
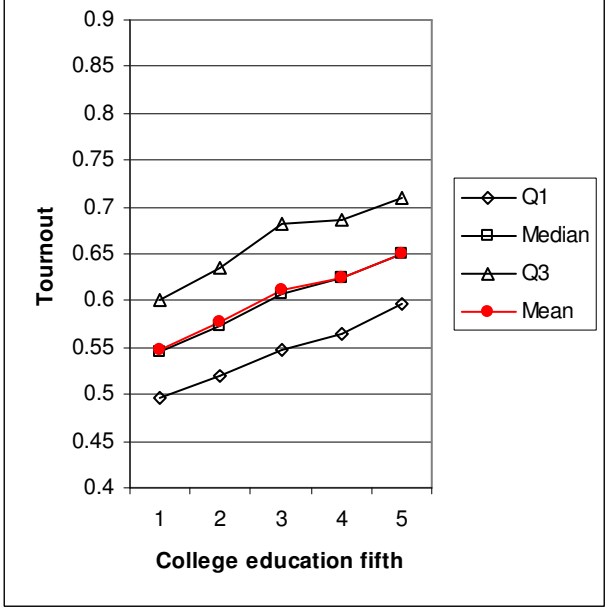


Figure 4.16- Turnout for president by education in the U.S., 2004



It is interesting to underline the fact that in the 1980 and 1984 presidential elections, the relationship between higher percentage of college educated individuals in a county and higher turnout is not obvious. In 1980, the least educated counties and the most educated ones reported a very similar turnout (the difference was only slightly greater than 2%). Counties with college educated populations closer to the average that belong to the third and fourth fifths registered the highest turnout of all. This pattern can also be observed in the 1984 presidential election. The inverse U shaped relationship between education and turnout challenges the idea that greater levels of education are automatically related to higher electoral participation.

The 1988 election exhibits a slightly positive relationship between counties with higher percentage of college educated voters and turnout, yet counties belonging to the third and fourth fifths of college educated voters had an almost identical electoral participation than the most educated counties in the United States. Once again, the distribution is relatively flat, as was the case for income in 1988. By 1992, the relationship becomes clearly positive and the difference between rates of participation between the first and last fifth is close to 12%. In the next three elections, from 1996 to 2004, education's effect on turnout gradually increases and in 2004, the gap in turnout between the counties with the lowest percentage of college educated voters and the counties with the largest percentage of college educated constituents almost reaches 19%. Table 4.2 helps summarize the changes described and clearly shows the increasing relevance of education in the past three and a half decades.

Table 4.2- Turnout by county according to college education (presidential elections)

Average Turnout			
	Least Educated Fifth	Most Educated Fifth	% Difference
1980	0.654375	0.6699	2.37%
2004*	0.548351	0.651066	18.73%
% Change	-16.20%	-2.81%	

Median Turnout			
	Least Educated Fifth	Most Educated Fifth	% Difference
1980	0.652764	0.673243	3.14%
2004*	0.546883	0.649554	18.77%
% Change	-16.22%	-3.52%	

*Although there is a high correlation between counties' percentages of college educated voters throughout the period analyzed, there was some dynamism such that some of the least educated counties in 1980 may not have been the least educated ones in 2004. For that reason, I calculated the percentage differences taking the 2004 turnout for the 1980 least educated counties. The results did not vary significantly from the results reported.

Turnout overall has diminished for all counties, yet the counties with the lower percentage of college-educated voters registered a much more drastic reduction (over 16%) compared to the most educated counties' diminution which was on average lower than 3%. The results presented can also be corroborated by looking at the differences in the distribution and medians in 1980 and 2004. Figures 5 and 6 depict these changes overtime and prove that the importance of education in explaining turnout has increased since the 1980 presidential election. As in the case of income, the intersection area between both distributions was much smaller in 2004 than in 1980.

Figure 4.17- Kernel density function of turnout by education level in 1980

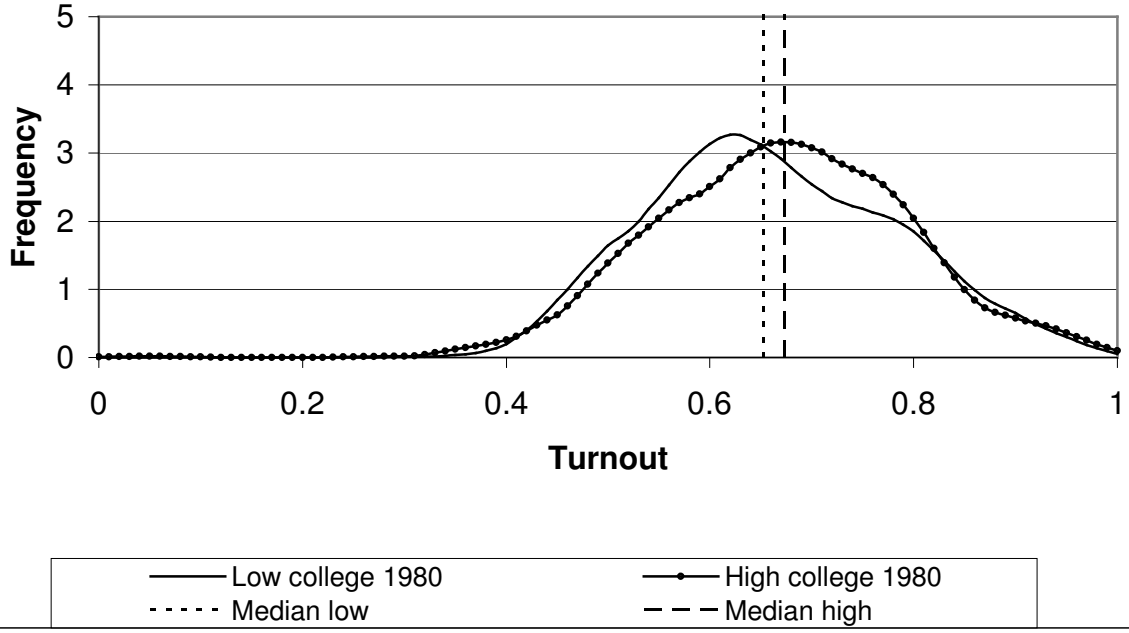
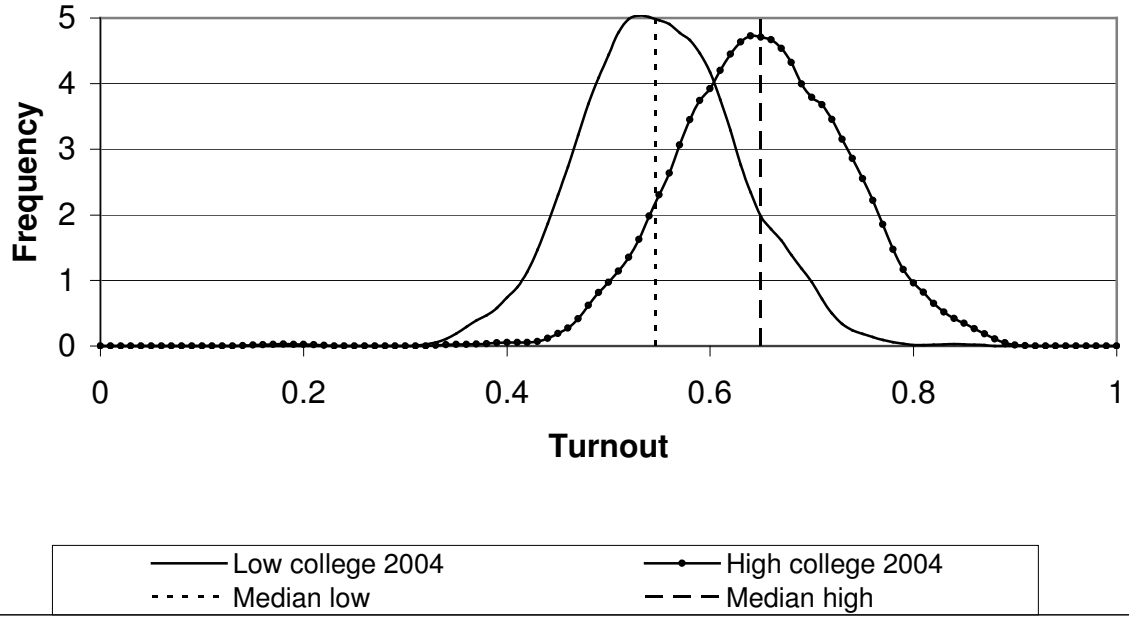


Figure 4.18- Kernel density function of turnout by education level in 2004



IV.1.3. Legislative Elections

For the purpose of this analysis, I used thirteen senate elections since 1980 including general and midterm elections (figures 4.19 through 4.31).[21] In the case of income, I observe that the effect of this variable on electoral participation has also been increasing throughout the years. In the 1980 presidential election, I identify a clearly positive relationship between income and turnout. Yet, in the next five elections until 1990, it is difficult to establish a pattern. In some cases, like the 1986 and especially the 1990 election, the richest counties clearly voted less than counties with lower per capita income. In 1982, the counties with close to average per capita income reported greater turnout than counties situated at the extremes but in 1988, these same middle income counties were less likely to vote. Interestingly since 1992, a clear positive connection can be established. Richer counties are more likely to vote. Income has had a positive effect on all presidential elections but when looking at Senate elections, 1992 seems to be an important turning point. Overall the changes during the period of analysis can be seen in the table 4.3.

The results are similar to those presented for the presidential elections and reveal that the effect of income per capita on turnout has increased throughout the past senate elections. It is very revealing to observe that in the 1980s, income explained very little of the differences in turnout in midterm elections, usually less than 2 percent. However, in the 2000s, the role of income on turnout dramatically increased such that by 2002, the richest counties voted on average 15.2% more than the poorest ones.

[21] Data for the House elections were not available at the county level and thus were not used for the purpose of this chapter.

Figure 4.19- Turnout for senate by income in the U.S., 1980

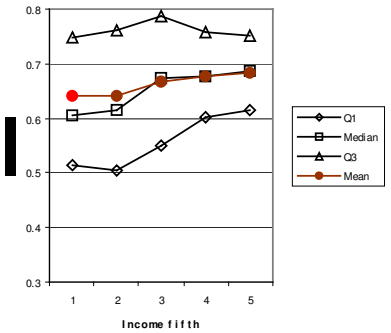


Figure 4.20- Turnout for senate by income in the U.S., 1982

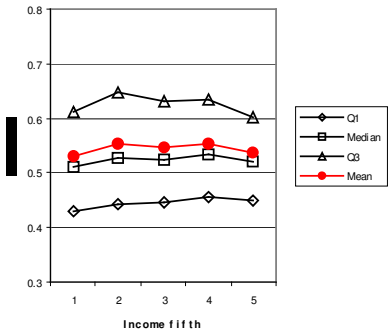


Figure 4.21- Turnout for senate by income in the U.S., 1984

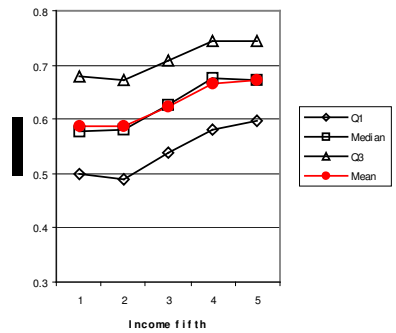


Figure 4.22- Turnout for senate by income in the U.S., 1986

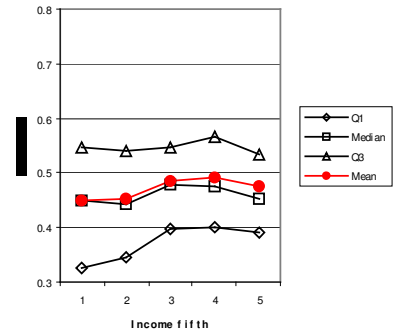


Figure 4.23- Turnout for senate by income in the U.S., 1988

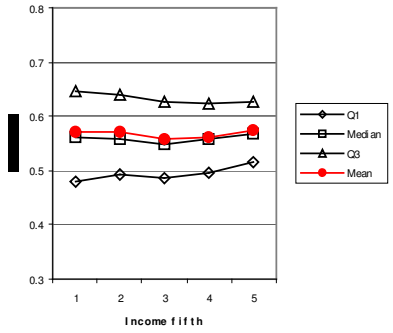


Figure 4.24- Turnout for senate by income in the U.S., 1990

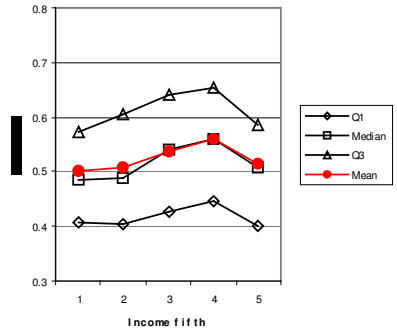


Figure 4.25- Turnout for senate by income in the U.S., 1992

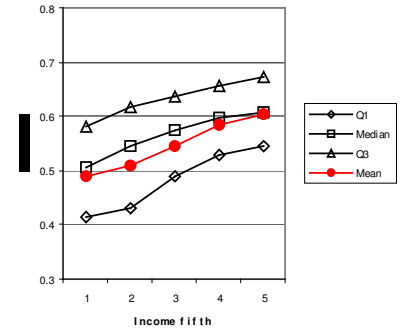


Figure 4.26- Turnout for senate by income in the U.S., 1994

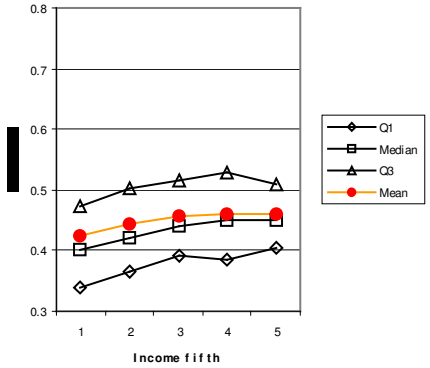


Figure 4.27- Turnout for senate by income in the U.S., 1996

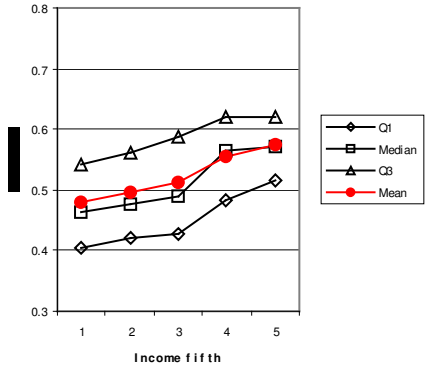


Figure 4.28- Turnout for senate by income in the U.S., 1998

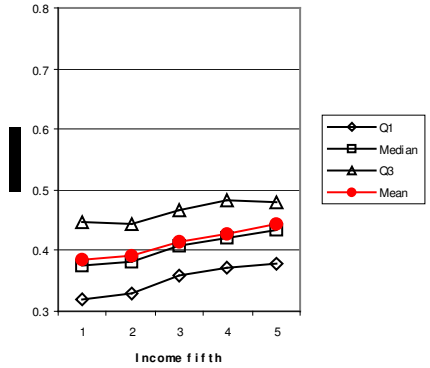


Figure 4.29- Turnout for senate by income in the U.S., 2000

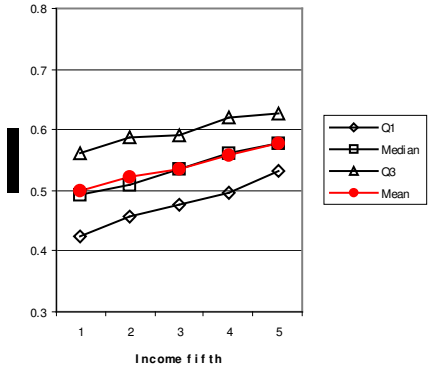


Figure 4.30- Turnout for senate by income in the U.S., 2002

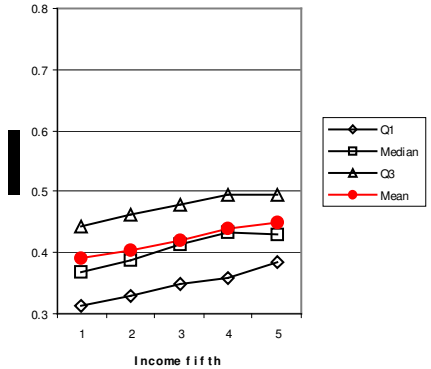


Figure 4.31- Turnout for senate by income in the U.S., 2004

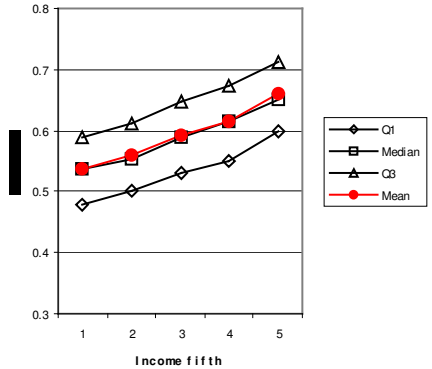


Table 4.3- Turnout by county according to per capita income (senate elections)

Average Turnout			
General Elections	Poorest Fifth	Richest Fifth	% Difference
1980	0.639495	0.682362	6.70%
2004	0.536118	0.660046	23.11%
% Change	-16.16%	-3.27%	
Midterm Elections	Poorest Fifth	Richest Fifth	% Difference
1982	0.530714	0.536855	1.15%
2002	0.389846	0.449418	15.28%
% Change	-26.54%	-16.28%	
Median Turnout			
General Elections	Poorest Fifth	Richest Fifth	% Difference
1980	0.604681	0.685787	13.41%
2004	0.535945	0.649197	21.13%
% Change	-11.36%	-5.33%	
Midterm Elections	Poorest Fifth	Richest Fifth	% Difference
1982	0.511612	0.519949	1.62%
2002	0.367987	0.431147	17.16%
% Change	-28.07%	-17.07%	

Senate elections also reveal interesting changes in the effect of education on turnout. As figures 4.32 through 4.44 reveal, the relationship between higher levels of education and voting has not always been positive. In several elections such as 1980, 1982, 1986 and 1990, counties with college educated populations close to the average reported a higher turnout than counties with the largest percentage of college educated populations. In some other cases like in the 1984 senate election, the most educated counties (those classified in the highest fifth) registered much less electoral participation than counties with smaller percentages of college educated voters. By 1992, a positive correlation between higher levels of education and turnout begins to consolidate

even if in 1994, the most educated counties still reported a drop in turnout compared to other counties. In the next senate elections up to 2004, education seems to play an important and consistent effect on turnout. The results of this analysis are shown on table 4.4.

Table 4.4- Turnout by county according to college education (senate elections)

Average Turnout			
General Elections	Least Educated Fifth	Most Educated Fifth	% Difference
1980	0.62154	0.657114	5.72%
2004	0.534769	0.641249	19.91%
% Change	-13.96%	-2.41%	
Midterm Elections	Least Educated Fifth	Most Educated Fifth	% Difference
1982	0.520557	0.523873	0.63%
2002	0.361615	0.445307	23.14%
% Change	-30.53%	-14.99%	
Median Turnout			
General Elections	Least Educated Fifth	Most Educated Fifth	% Difference
1980	0.611316	0.657427	7.54%
2004	0.535435	0.633094	18.23%
% Change	-12.41%	-3.70%	
Midterm Elections	Least Educated Fifth	Most Educated Fifth	% Difference
1982	0.510726	0.517864	1.39%
2002	0.358261	0.43037	20.12%
% Change	-29.85%	-16.89%	

Turnout diminished for all counties but the drop was more than proportional for the least educated counties. The decrease in turnout in the least educated counties was drastic when looking at midterm elections (close to 30%). I also observe that education became a much more powerful predictor of turnout when compared to the senate elections in the 1980s, especially midterm contests.

Figure 4.32- Turnout for senate by education in the U.S., 1980

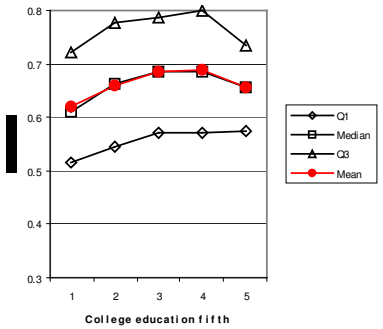


Figure 4.33- Turnout for senate by education in the U.S., 1982

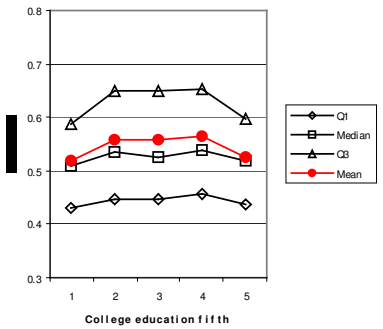


Figure 4.34- Turnout for senate education in the U.S., 1984

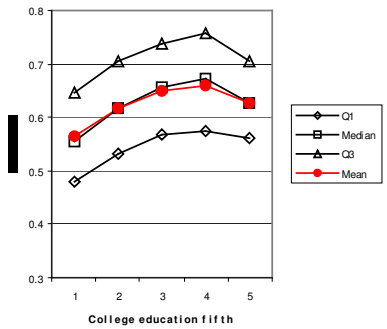


Figure 4.35- Turnout for senate by education in the U.S., 1986

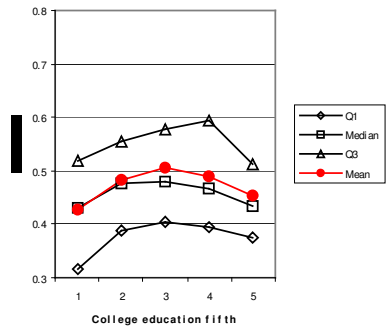


Figure 4.36- Turnout for senate by education in the U.S., 1988

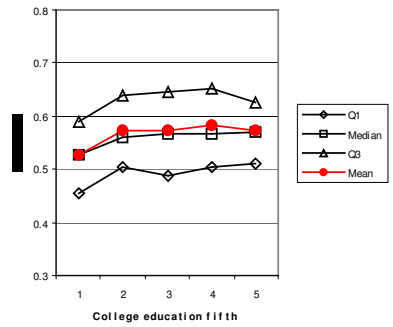


Figure 4.37- Turnout for senate by education in the U.S., 1990

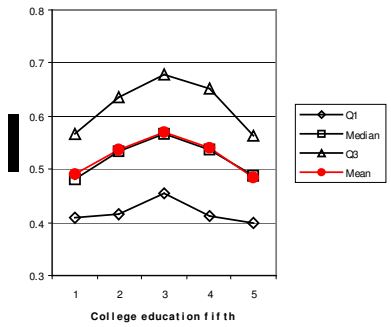


Figure 4.38- Turnout for senate by education in the U.S., 1992

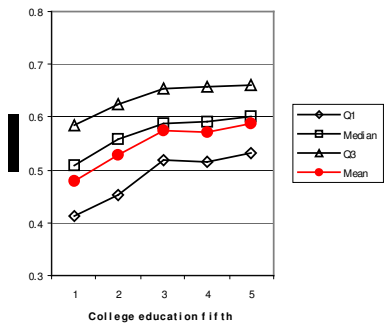


Figure 4.39- Turnout for senate by education in the U.S., 1994

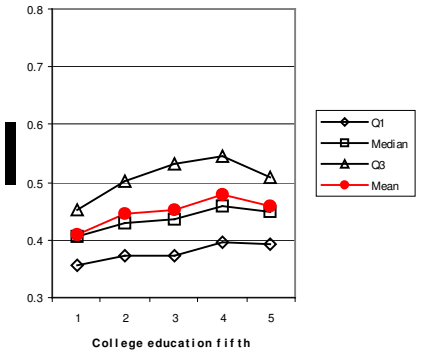


Figure 4.40- Turnout for senate by education in the U.S., 1996

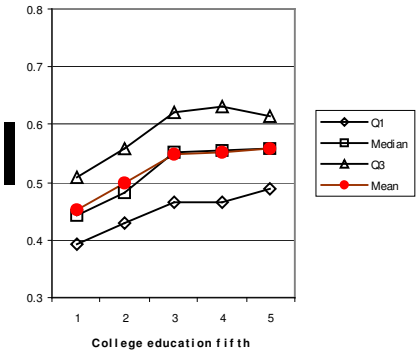


Figure 4.41- Turnout for senate by education in the U.S., 1998

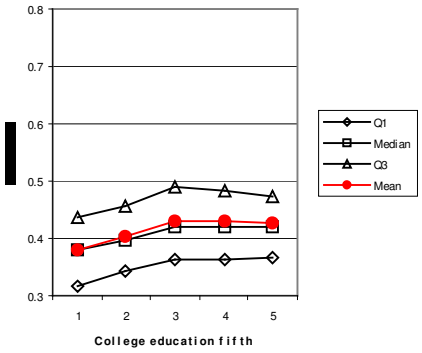


Figure 4.42- Turnout for senate by education in the U.S., 2000

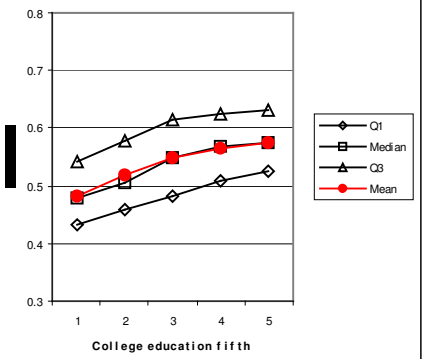


Figure 4.43- Turnout for senate by education in the U.S., 2002

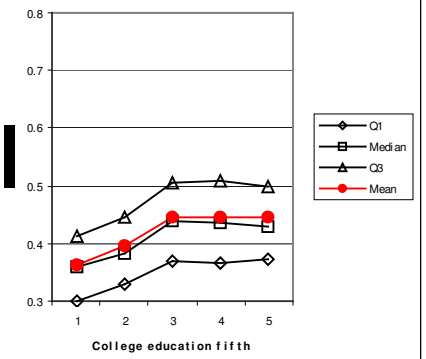
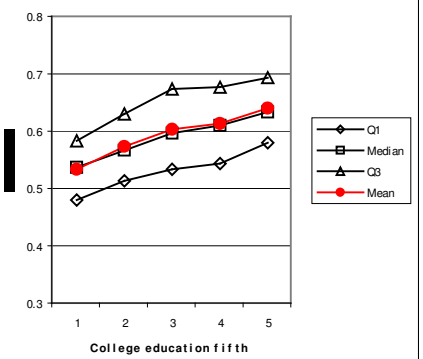


Figure 4.44- Turnout for senate by education in the U.S., 2004



IV.2. Income, Education and Partisanship in the United States

Much has been said lately about state division in the US between the blue states that tend to be richer and support democrats and the red states that in their majority vote republican. In this section, I analyze two of the most essential variables related to socioeconomic status—income and education—and their impact of partisanship in general and midterm elections since 1980. As in the rest of the analysis, I use counties as the main unit of analysis. When looking at income, I find that in the 1980 Reagan election, republicans obtained their vote mostly from affluent wealthy counties. In that election, higher levels of income were clearly related to greater support for the Republican Party.

In the 1984 and 1988 elections, turnout for the republicans increased significantly—especially for Reagan's re-election—and although wealthier counties were still more likely to support this party, less affluent counties started voting increasingly for the Republican Party. During Clinton's first election, it appears that income became less relevant to define partisanship. Income differences between counties were no longer significant to understand party preferences. The 1996 election followed a similar pattern than the 1992 one but for the first time since 1980, the richest counties decreased their support for the Republican Party. Interestingly, by 2000, the relationship between income and support for the Republican Party adopted an inverse U-shape. The poorest counties and the richest ones were the less likely to support Bush, while counties with close to average income overwhelmingly voted republican. The same pattern can be observed in 2004.

Overall I observe that the Republican's constituency changed overtime significantly. From 1980 to 1992, richer counties were more likely to support the Republican candidates. Nonetheless, when looking at the past two presidential elections, it would be safe to conclude that republicans obtained their votes mostly from average income counties while loosing votes from the richest ones. When looking at the results for the Democratic Party, it is also interesting to note that income was consistently negatively related to support for this party in the 1980, 1984 and 1988 presidential elections. In those three cases, a marginal increase in the per capita income of the counties immediately implied a reduction in support for democrats. Nonetheless, since 1992 this pattern started to change such that the richest counties started casting more votes for the Democratic Party. In the next three elections, 1996, 2000 and 2004, the relationship between income and support for the democrats became decisively u-shaped such that the poorest counties as well as the richest ones were the ones voting for democrats in the elections while middle income counties were much less prone to support this party. Not surprisingly, the examination of democratic support is almost a perfect inverse reflection of patterns of support for the republicans throughout the years except for the fact that it helps us identify more clearly the shifts that started taking place in 1992 and that made richer counties more favorable to Democrats.

When analyzing senate elections, from 1980 to 1990, a very high positive correlation between income and republican partisanship can be observed. As average per capita income increases in the county, support for the conservative party increases almost proportionally. In

subsequent elections, such as 1992, 1998, 2002 and 2004, I find that the richest counties no longer support the Republican Party. This phenomenon could also be observed to a lesser degree in the 1994 and 2000 elections. In the 1990s, the only legislative election in which income was positively related to a higher level of support for the Republican Party was 1996. These results are very similar to what was found for the presidential elections. Counties with close to average income per capita appear to be stronger supporters of the Republican Party since the 1992 election.

Education was usually negatively related to support for the Democratic Party. From 1980 to 1992, a marginal increase in the percentage of college educated voters in a county lead to a decrease in support for the democrats although the percentage of votes obtained for this party in the most educated counties tended to increase slightly. In 1996, the tendency started to change and became more U-shaped such that most democratic supporters came from the least educated counties and the most educated ones, while counties with close to average education were less likely to support the Democratic Party. This tendency became more and more acute in the 2000 and 2004 elections. For instance, the difference in democratic support in 2004 between counties with average education and the most educated ones was close to 25%. This relationship can also be seen when looking at the correlation between republican votes and education. The most educated counties have become increasingly less prone to cast votes in favor of republican candidates since 2000.

IV.3. Regression Analysis

In order to analyze the interaction of different socioeconomic variables, I introduced in this chapter the results of regression models ran for each presidential election. For each year, two OLS models are presented. In the first model, age, occupation, education and income were included as a function of turnout. The second model also includes a measurement of poverty (see table 4.5).

As expected, the higher the median age of the county, the higher the turnout registered. Yet, the effect of age has diminished overtime. The percent of the labor force in agricultural activities is positively correlated with turnout. Depending on the year of the election, the magnitude of the effect of this variable varies, however, there is no clear identifiable time pattern. From 1980 to 1992, when poverty is introduced, the effect of agricultural occupational status increases. It remained practically unchanged in subsequent elections.

Education, measured as the percent of individuals with at least four years of college education, increases the likelihood of higher turnout. When poverty is accounted for in the counties, the effect of education increases. The county's per capita income is positively associated with turnout. Richer counties tend to vote more and the magnitude of the effect has been growing overtime. When poverty is introduced, however, the effect of income turns negative from 1980 to 1992 although with very low statistical significance from 1984 to 1992. From 1996 to 2004, income and turnout are positively associated even when poverty is contemplated.

Table 4.5- OLS models by year of election, output variable: Turnout for president

	1980				1984				1988				1992			
Covariate	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Intercept	-0.1972	0.0380	0.6503	0.0000	-0.2217	0.0160	0.3792	0.0020	0.2434	0.0050	0.8791	0.0000	-0.3485	0.0010	0.5214	0.0000
Median age	0.0124	0.0000	0.0114	0.0000	0.0087	0.0000	0.0083	0.0000	0.0053	0.0000	0.0048	0.0000	0.0043	0.0000	0.0036	0.0000
Percent in agricultural industries	0.5650	0.0000	0.6014	0.0000	0.5076	0.0000	0.5434	0.0000	0.6168	0.0000	0.6246	0.0000	0.4879	0.0000	0.5060	0.0000
Percent of people with college (4+)	0.3754	0.0000	0.4086	0.0000	0.4000	0.0000	0.4326	0.0000	0.4163	0.0000	0.4601	0.0000	0.3379	0.0000	0.3957	0.0000
Per capita income	0.0429	0.0000	-0.0428	0.0040	0.0519	0.0000	-0.0082	0.5280	0.0048	0.6160	-0.0576	0.0000	0.0742	0.0000	-0.0098	0.5030
Percent of people living in poverty			-0.5267	0.0000			-0.3516	0.0000			-0.2928	0.0000			-0.3635	0.0000
N	2965		2965		2965		2965		2975		2975		2975		2975	
R-squared	0.3575		0.3786		0.3643		0.3785		0.3451		0.3599		0.3164		0.3440	
Prob > F	0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	

	1996				2000				2004			
Covariate	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Intercept	-0.4667	0.0000	0.1563	0.2220	-0.9890	0.0000	-0.3640	0.0040	-0.9888	0.0000	-0.4227	0.0020
Median age	0.0039	0.0000	0.0031	0.0000	0.0031	0.0000	0.0024	0.0000	0.0020	0.0000	0.0012	0.0030
Percent in agricultural industries	0.5323	0.0000	0.5383	0.0000	0.4876	0.0000	0.4811	0.0000	0.4460	0.0000	0.4522	0.0000
Percent of people with college (4+)	0.2931	0.0000	0.3079	0.0000	0.2189	0.0000	0.2493	0.0000	0.2705	0.0000	0.2908	0.0000
Per capita income	0.0794	0.0000	0.0216	0.0940	0.1354	0.0000	0.0779	0.0000	0.1435	0.0000	0.0923	0.0000
Percent of people living in poverty			-0.2893	0.0000			-0.2787	0.0000			-0.2577	0.0000
N	2975		2975		2975		2975		2975		2975	
R-squared	0.3749		0.3947		0.3889		0.4077		0.3598		0.3761	
Prob > F	0.0000		0.0000		0.0000		0.0000		0.0000		0.0000	

Poverty, measured as the proportion of people living under 0.75 of the poverty line, always decreases the likelihood of turnout. Nevertheless, its effect has diminished overtime. Wolfinger et Rosenstone (1980) found that income was an important determinant factor to explain turnout for those below the poverty line but that education became important once above the poverty line. Their story is congruent with the results from the eighties all the way to 1992, when income is important until poverty is introduced. Nonetheless, since 1996, income is still positively associated with turnout whether poverty is introduced or not. Poverty only decreases the magnitude of the effect of income. Education on the other hand, is always important but it becomes more important when poverty is contemplated.

IV.4. Discussion of the Results

Analysts studying American elections have shown concern that modern turnout is quite low in comparison to other democratic nations. In the past few elections, results show that less than 50% of the eligible population voted for president and the percentage is even lower when looking at the electoral results for other races. Overall, modern Americans vote less often. Additionally, the results in this chapter show that counties with lower per capita income and smaller college-educated populations are increasingly less active in the electoral arena. Turnout has diminished for every single county in the US since 1980 but it has diminished more than proportionally in counties with lower income and lower levels of education. These empirical findings indicate that the American democracy may be increasingly biased in favor of the better-off communities.

Quaile Hill et al. (1992) found that "class bias in states electorates is systematically related to the degree of redistribution in contemporary state policies. (p. 364)" The authors provided compelling evidence to show that electoral participation is critical in the formulation of social policies and that the socioeconomic composition of the electorate shapes the nature of those policies. In that respect, communities already affluent have more influence over policy decision making by been more active in electoral terms while counties that would benefit more from social or educational programs are less influential in political terms, just because their lower levels of turnout make them less pivotal in the electoral arena.

Much has been said recently about the cultural war in America and its impact on politics. Journalists, anchors, pundits and the media in general have told us that this country is increasingly divided by cultural and moral issues. The 2004 election was an important showcase of this phenomenon. According to various exit polls, a vast majority of Americans considered what they describe as moral values their priority when deciding who to vote for. Questions such as women' rights to have an abortion, gay marriage among others bitterly divided the country. Interestingly, when looking at the results of this chapter, it is difficult to discard socioeconomic variables as important variables influencing turnout. Variables such as income and education have gained importance when explaining differences in turnout.

In this study, I divided counties in America according to fifths, ranging from counties with the lower average per capita personal income to the highest. Similarly, given that the literature has reached a consensus that higher levels of education lead to a greater likelihood of

voting, I divided counties in fifths according to the percentage of their college educated population. The results show that the differences in turnout between rich counties and poor ones have increased in the past decades. For instance, in 1980 the difference in turnout between the poorest and the richest counties was 4.61% while in 2004 it had reached more 20%. On the other hand, educational differences among counties seem to explain nowadays gaps in turnout better than they did in the past. The difference in mean turnout between the least educated counties in 1980 and the most educated ones was 2.37% compared to 18.73% in 2004 according to the findings for the presidential elections. Similar patterns can be observed in legislative elections. Despite the popular idea that culture seems to define participation and that for example turnout in Ohio in 2004 was highly influenced by a cultural issue—the ban on gay marriage—we should not diminish the role of education and income as powerful influential variables on turnout in America.

When analyzing partisanship, we observe that republican's constituencies have changed since 1980 such that in 2000 and 2004, the counties most likely to support this party were those with close to average per capita income and college educated populations. Popular authors such as Thomas Frank in his book *What is the Matter with Kansas? How Conservatives Won the Heart of America*, argue that low income Americans are increasingly voting in favor of conservatives even if this negatively impacts their economic interests but because they share the moral and cultural values of the Republican Party. The results presented in this study when looking at presidential and legislative elections, show that although lower income counties have increasingly turned republican, the middle class appears to be the bastion of the Republican Party

rather than low income constituencies. Nonetheless, it is clear that richer counties with the highest percentage of college educated populations tend to support the Democratic Party substantially more nowadays than they did in the 1980s. The electoral behavior as well as the partisanship in America according to socioeconomic status have changed substantially since the 1980, however, socioeconomic status has still a powerful effect on electoral participation.

CHAPTER FIVE

A. COMPARATIVE LOOK AT MEXICO AND THE UNITED STATES: ECONOMIC CONDITIONS, SOCIOECONOMIC STATUS AND INSTITUTIONS

The United States has been a consolidated democracy for a very long time and turnout has changed considerably overtime. During the second half of the XIX century, turnout in the US, measured as the proportion of votes cast by the eligible voting population, was rather high by historical and geographical standards. For several years, electoral turnout reached 80% and up until 1900, it never fell below 70%. Since 1900, turnout has been much lower in the US. In 1920, it reached a low of 50% but then recovered although it never attained the levels observed during the previous century (Mc.Iver, 2006).

Fluctuations in turnout have responded partially to legal changes to the franchise. The evolution of "universal suffrage" in the United States has been complex and difficult and started with a quite limited conception of government by property owners that slowly evolved toward a more inclusive legal enfranchisement. Several amendments gradually gave the right to vote to all males notwithstanding ethnicity. Later on, gender barriers were eliminated and age restrictions were lowered, giving suffrage to the eighteen to twenty years old with the adoption of the 26th amendment.

In the case of Mexico, although elections have taken place since the early XIX century, the political turbulence of that century makes it difficult to talk about a consolidated democratic

regime. The most stable years ran from 1876 to 1911 under Porfirio Díaz. Aside from a brief interregnum from 1880 to 1884 in which Díaz chose Manuel González to govern, the dictator ruled ruthlessly and effectively. After the Mexican Revolution, elections became the established way to elect government. Nonetheless, fraud was pretty widespread and the ruling party always benefited from disproportionate access to media and other resources. Given that scenario, it is difficult to label the elections that took place during most of the XX century as free and fair.

The 1988 presidential election was the first in the history of modern Mexico where an opposition candidate, Cuauhtémoc Cárdenas from the left leaning PRD, became a strong contender to the official party. Much debate surrounds this election and to this date there is strong consensus that electoral fraud took place, thus tarnishing the outcome. Carlos Salinas de Gortari came to power as a weak, illegitimate president but he grew stronger while in power. Since 1994, elections have become more transparent in Mexico, and in spite of the recent political discontent after the July 2006 election, the system has become more trustworthy and transparent.

Despite the political differences observed throughout history in both countries, nowadays there are free and fair elections taking place in both political systems that make a comparative analysis a viable option. Given that the focus of this dissertation is to compare and contrast the electoral behavior of the American and the Mexican electorate, in this chapter, I will combine data from American and Mexican elections and analyze the relevance of socioeconomic variables as well as institutional ones to disentangle similarities and differences.

The next section in this chapter provides a brief overview of the differences in economic development and quality of life in both countries in order to establish a more tangible picture of what poverty, marginalization, inequality and other economic variables mean in each of the countries of the study. I will then compare the effect of education and poverty specifically on turnout in the US and Mexico using statistical tools that allow for data pooling rather than looking at elections separately in each country. This method provides a long-term picture of electoral behavior in each country. Institutional variables such as competition and multipartyism will be analyzed in the third section of the chapter to explain the impact of these factors on electoral participation. Finally the results will be discussed and general conclusions that contribute to our understanding of the determinants of turnout will be provided.

V.1. Economic Indicators and Quality of Life in Mexico and the United States

Mexico and the United States have very different levels of economic development. In this section of the chapter, I will describe and discuss some representative indicators in order to establish an analytical framework that will prove useful for the comparative analysis to be elaborated.

Table 5.1- Income Inequality in Mexico and the U.S.

	Survey Year	Gini Index	Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Mexico	2000	54.6	1%	3.10%	7.20%	11.70%	19%	59.10%	43.10%
US	2000	40.8	1.90%	5.40%	10.70%	15.70%	22.40%	45.80%	29.90%

Source: World Bank, Development Indicators, http://devdata.worldbank.org/wdi2005/section2.htm

The information on table 5.1 clearly shows that income distribution in Mexico is worse than in the United States. On the one hand, the richest percentile in Mexico controls 43.1% of the

total income while in the United the same group holds less than 30%. On the other hand, poor Mexicans possess a smaller share of national income than poor individuals in the United States. The middle class also appears to be significantly larger in the United States than in Mexico.

The Gini coefficient, which measures inequality reveals that in Mexico, a smaller group among the wealthiest people controls a larger percentage of income than in the United States. This coefficient fluctuates between zero and one, where one means that a single individual controls all income in an economy, thus the closest the index approaches to one, the worse income disparities in a society. In 2000, the Gini coefficient was closer to one in Mexico that in its northern neighbor, a consistent difference for the past years.

The data on table 5.2 should be analyzed with some skepticism. Data on unemployment in Mexico tend to understate the real level of unemployment in the economy. Nevertheless, it is important to mention that unemployment in general has diminished through time and that women are less likely to be unemployed in 2000-2002 compared to 1990-1992. Clearly less educated individuals are more prone to unemployment. More than half of those unemployed in 1999-2001 only had primary education while individuals with tertiary educational attainment represented less than one third of the unemployed.

Table 5.2 reveals that unemployment has also diminished in the US from 1990 to 2002. Women are less likely than men to suffer from regular unemployment or long-term

unemployment. A striking difference between the US and Mexico is the role of educational attainment. More than 44% of the unemployed in the US have a tertiary educational attainment while those with primary education only represent slightly more than 20% of the total unemployment registered between 1999 and 2001 in the United States. Less educated workers in Mexico are more vulnerable than in the US and thus may rely more heavily on public policies adopted by the state to ensure that they do not fall under the poverty threshold easily.

Table 5.2- Unemployment in Mexico and the United States

Mexico

Unemployment				Long Term Unemployment			Unemployment by Level of Educational Attainment		
% of Male Labor Force		*% of Female Labor Force*		% of Total Unemployment			% of Total Unemployment		
1990-1992	2000-2002	1990-1992	2000-2002	*Male*	*Female*	*Total*	Primary	Secondary	Tertiary
2.7%	2.4%	4%	2.4%	2000-2002	2000-2002	2000-2002	1999-2001	1999-2001	1999-2001
% Total Labor Force				1%	0.3%	0.7%	51.5%	23.9%	22.2%
1990-1992		2000-2002							
3.1%		2.4%							

US

Unemployment				Long Term Unemployment			Unemployment by Level of Educational Attainment		
% of Male Labor Force		*% of Female Labor Force*		% of Total Unemployment			% of Total Unemployment		
1990-1992	2000-2002	1990-1992	2000-2002	*Male*	*Female*	*Total*	Primary	Secondary	Tertiary
7.9%	5.9%	7%	5.6%	2000-2002	2000-2002	2000-2002	1999-2001	1999-2001	1999-2001
% Total Labor Force				8.9%	8.1%	8.5%	20.3%	35.3%	44.4%
1990-1992		2000-2002							
7.5%		5.8%							

Source: World Bank, Development Indicators, http://devdata.worldbank.org/wdi2005/section2.htm

Less educated workers in the US are less vulnerable. The dynamism of the economy is strong enough to provide jobs—although sometimes underpaid—to those with only primary education in the United States. Interestingly, in Mexico, individuals with tertiary education register the lowest level of unemployment while in the US, this group reports levels of unemployment greater than 40%. For the purpose of this analysis, this information suggests that workers with lower levels of educational attainment in Mexico depend more upon the policies that a particular administration adopt while in the US, unskilled workers have a stronger safety net that protect them, to a larger extent, from unemployment. Individuals with secondary level of educational attainment are also more vulnerable in the US than they are in Mexico.

Table 5.3- Employment by Economic Activity

Mexico

Agriculture				Industry				Services			
% Male Employment		*% Female Employment*		*% Male Employment*		*% Female Employment*		*% Male Employment*		*% Female Employment*	
1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002
33%	24%	10%	6%	25%	28%	18%	22%	43%	48%	72%	72%

US

Agriculture				Industry				Services			
% Male Employment		*% Female Employment*		*% Male Employment*		*% Female Employment*		*% Male Employment*		*% Female Employment*	
1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002	1990-1992	2000-2002
4%	3%	1%	1%	33%	32%	14%	12%	62%	65%	85%	87%

Source: World Bank, Development Indicators, http://devdata.worldbank.org/wdi2005/section2.htm
Note: Data may not add up to 100% because of the workers that are not classified by sectors.

Data on employment by economic activity in table 5.3 show that a large percentage of the Mexican population, males and females, rely on agriculture. The share of American male workers in industry greatly outnumbers Mexican male workers in the same sector. Nonetheless,

the percentage of Mexican female workers in this activity is larger than the percentage of American females, probably because the "maquila" with its large majority of female workers has become so prevalent in Mexico. In the United States, almost two thirds of the American male workers and more than 80% of female workers work in the services industry. These numbers are significantly larger than the numbers encountered for Mexican workers. This disparity is significant when it comes to evaluate the vulnerability to which workers in different countries are exposed. Agriculture is much more cyclic than industry and services especially in a developing country like Mexico that still does not benefit from an extensive agro-industry and still has a non-negligible proportion of peasants. For the workers and peasants alike, state policies may have a huge impact in their everyday subsistence and economic well-being.

Table 5.4- Assessing Vulnerability

Mexico

Urban Informal Sector Employment		Youth Unemployment		Children in the Labor Force		Pension Contributors		Private Health Expenditure
% of Urban Employment		% Labor Force Ages 14-24		% of Age Group		% Labor Force	% Working Age Pop	% of Total
Male	Female	Male	Female					
1995-2002	1995-2002	1995-2003	1995-2003	1990	2003	1997		2003
18%	22%	5%	6%	9%	6%	30%	31%	55.1%

United States

Urban Informal Sector Employment		Youth Unemployment		Children in the Labor Force		Pension Contributors		Private Health Expenditure
% of Urban Employment		% Labor Force Ages 14-24		% of Age Group		% Labor Force	% Working Age Pop	% of Total
Male	Female	Male	Female					
1995-2002	1995-2002	1995-2003	1995-2003	1990	2003	1993		2003
na	na	13%	11%	0%	0%	94%	91.9%	55.1%

Source: World Bank, Development Indicators, http://devdata.worldbank.org/wdi2005/section2.htm

Table 5.4 shows information that helps assess the vulnerability of households. As defined by the World Bank, "[V]vulnerability reflects a household's resilience in the face of shocks and the likelihood that a shock will lead to a decline in well-being. Thus it depends primarily on the household's asset endowment and insurance mechanisms. Because poor people have fewer assets and less diversified sources of income than the better-off, fluctuations in income affect them more (World Bank, 2005)."

Data on informal employment is not available for the US but in the case of Mexico, we observe that in 1995-2002, the percentage of workers employed in the informal sector was quite large, especially for women. The presence of the informal sectors in Mexico can partially explain the low levels of unemployment reported in the previous section. It is difficult to assess the extent of this sector in the Mexican economy but it is important to underline that the Statistics Institute reveals that only in Mexico City, informal employment now represents 40% of all employment (INEGI, 1990). Given the lack of reliable information for this kind of employment, it is difficult to evaluate the quality of life, salaries and working conditions of those in this sector. Nonetheless, its presence and expansion reflects government's failure to integrate the active population into the formal sector and the resilience of Mexicans to find alternative means to support themselves and their families.

Surprisingly, youth unemployment is larger in the US than in Mexico, even if workers with lower levels of educational attainment are better able to find jobs in the US than in Mexico.

This information contrasts with the previous findings that showed that education does not significantly diminish the possibility of employment in the US. In this case, other variables such as the lack of work experience may explain the higher level of youth unemployment in the US. Children labor in Mexico attained almost 10% in 1990 and then diminished to 6% in the year 2003. In contrast, the percentage of children in the labor force was null in the US. This is no doubt due to the US legislation restricting children's work in the economy and the baseline well-being of the poorest groups that can meet their basic material needs without having their children working. In the case of Mexico, laws may be more lax or not well enforced. This information reveals the precarious conditions of the most vulnerable in the Mexican society.

The percentage of Mexican workers that contribute to the pension fund is much lower in Mexico that in the US. This phenomenon is probably the result of two factors. Mexico introduced a pension reform in the 1990s and in the process, only a fraction of the workers have been registered. On the other hand, the large percentage of workers in the informal sector does not contribute to this fund. Contrastingly, in the US, the percentage of pension contributors is larger than 90%. Finally, the two countries had the same percentage of private health expenditure in 2003. However, the data for Mexico may not be reliable given that a significant percentage of workers employed in the informal sector pay privately for their medical expenses.

World Bank statistics provide a section called "Enhancing security" that describes services provided by the state in terms of expenditures on pensions, health and education as percentages of GDP and as a percentage of GDP per capita (see table 5.5).

Table 5.5- Enhancing Security

Mexico

Public Expenditure on Pensions				Public Expenditure on Health	Public Expenditure on Education	
Year	% of GDP	Year	Average Pension % Per Capita Income	% of GDP 2002	% of GDP 2002/2003	Per Student % GDP Per Capita 2002/2003
2000	0.3[a]			2.7	5.2	17.2

US

Public Expenditure on Pensions				Public Expenditure on Health	Public Expenditure on Education	
Year	% of GDP	Year	Average Pension % Per Capita Income	% of GDP 2002	% of GDP 2002/2003	Per Student % GDP Per Capita 2002/2003
1997	7.5	1989	33	6.6	5.7	24.7

Source: World Bank, Development Indicators, http://devdata.worldbank.org/wdi2005/section2.htm
a. Refers only to the scheme of civil servants.

Although the information on expenditure on pensions in Mexico only includes civil servants, it is clear that only a very small fraction of GDP (0.3%) is destined to this purpose. In contrast, in 1997, 7.5% of the American GDP was channeled to this fund. The expenditure on pensions represented on average 33% of US per capita income in 1989. The percentage of GDP expenditure on health in the US in 2002 more than doubled the percentage of GDP expenditure on this category in Mexico for the same year. Finally, public expenditure on education is not substantially different in both countries when measured as a percentage of GDP. Nonetheless, the per student figure reveals a sharp contrast. In Mexico, public expenditure per capita is close to 17% while in the US it almost reaches 25% for the same period.

Data presented under this section indicate several differences in welfare provisions in both countries. Despite the fact that public assistance in the US tends to be smaller than in other developed countries, it is still significantly higher than in Mexico. The figures presented above reveal than in this developing country, workers and citizens at large are more vulnerable than their counterparts in the US. This is especially true for those at the bottom of the socioeconomic strata who have to deal with very high levels of unemployment or underemployment but cannot rely on a safety net provided by public agencies. For this group of individuals, public policies can greatly affect their quality of life.

As previously shown, educational attainment considerably impacts unemployment in Mexico. A striking 51.5% of unemployed workers in this country, have only primary education and more than two-thirds of unemployed individuals lack high school education. Public expenditure in this category has increased in the past years as a percentage of GDP according to OECD figures but nonetheless; spending per student remains low in absolute terms. The OECD reports that:

> Spending per primary student in Mexico, at $1656 (adjusted for differences in Purchasing Power Parities), is still very low and is approximately one third of the OECD average (US $5450). Spending per student in lower secondary education (US$1495) is approximately one quarter of the OECD average of US $6560. At the upper secondary level, spending per student is, at US $2790 significantly higher, but represents only one third of the OECD average level (US $7582). Furthermore, at the tertiary level, spending per student is, at US $5774, slightly more than half of spending per student at the OECD average level (US $11254). Although tertiary students are far better than primary or lower secondary students, spending per tertiary student over the average duration of studies in Mexico (…) is equal or less than what the United States and Switzerland spend per student in a single year, namely US $24074 and US $25900 respectively (OECD, p.1).

The OECD study is particularly worrying given that it proves that primary education expenditure is not appropriately funded and that individuals without this minimal level of

educational attainment are particularly at risk in the Mexican economy. Tertiary students receive higher levels of funding than their younger counterparts in primary and secondary but unless serious resources are destined to the initial phases of the educational process in Mexico, it is unlikely that the economic future of a large segment of the population will improve. It is this group who is still at the mercy of politicians' willingness to improve education in Mexico.

In terms of health expenditure, its services and use, the US clearly spends more than double as a percent of GDP than Mexico in this category (table 5.6). Public expenditure in the US represents 6.6% of GDP while it only reaches 2.7% in Mexico (OCDE). Health expenditure per capita in Mexico in 2002 was US $379 compared to US $5274 in the US for the same year, that is the expenditure in America was fourteen times higher than the expenditure in the developing neighbor. The data on the number of physicians per 1000 people and the number of hospital beds per 1000 people is as striking as the information presented above. During the period from 1990 to 2004, the number of physicians per 1000 people went from 2.4 to 5.5 in the US while the increase in Mexico was modest, from 1.1 to 1.7 physicians per thousand people.

In sum, by 2004, the US had three times more physicians per capita than Mexico. Similarly, in the period from 1995 to 2002, the number of hospital beds per 1000 people in the US was slightly higher than three times the number of beds in Mexico despite the substantial decrease in this category in the US. Recent reports confirm that in 2004, total health spending as a percentage of GDP in Mexico was more than two percentage points lower that the average expenditure in OECD countries (OECD 2, p.1).

Table 5.6- Health Expenditure, Services and Use

Mexico

Health Expenditure					Health Expenditure Per Capita ($)	Physicians Per 1000 People		Hospital Beds Per 1000 People	
Total	Public		Out of Pocket	External Resources					
% GDP 2002	% GDP 2002	% Total 2002	% Private 2002	% Total 2002	2002	1990	2004	1990	1995-2002
6.1	2.7	44.9	94.6	0.8	379	1.1	1.7	0.8	1.1

US

Health Expenditure					Health Expenditure Per Capita ($)	Physicians Per 1000 People		Hospital Beds Per 1000 People	
Total	Public		Out of Pocket	External Resources					
% GDP 2002	% GDP 2002	% Total 2002	% Private 2002	% Total 2002	2002	1990	2004	1990	1995-2002
14.6	6.6	44.9	25.4	0	5274	2.4	5.5	4.9	3.6

Source: World Bank, Development Indicators, http://devdata.worldbank.org/wdi2005/section2.htm

V.2. Comparing the Effect of Education and Poverty in the United States and Mexico

Studies done for the United States and other consolidated democracies in the developed world show that socioeconomic status is closely related to turnout and people with lower levels of education and income tend to vote less and to be less active in other forms of political participation such as party events, political rallies, etc... So far, in this dissertation, the use of aggregate data for the United States proves that lower socioeconomic status is indeed related to a depressed turnout. It also shows that this tendency has increased in the past decades and that although turnout has diminished for all counties, it has fallen more than proportionally in those counties that report lower levels of education and income. In sum, in the United States, if we look at each election separately, it appears that socioeconomic status is a powerful determinant of turnout and its effect has increased in recent years.

In this chapter, the use of a cross-section time series analysis for American elections since 1980 allows pooling of the data for all the elections instead of analyzing each election separately. This analysis shows that education and poverty are indeed significant determinants of turnout in the United States.

Overall, a higher percentage of college-educated voters in a county increased significantly the electoral participation. Poverty on the other hand, reduced turnout substantially[22]. These findings using pooled data are coherent with previous results. However, a very interesting result obtained using these statistical techniques is that income becomes negatively related to turnout once we consider all presidential elections together. The estimators for income using different models are negative and statistically significant. The inclusion of poverty in the model accentuates the negative impact of income on turnout. The use of aggregate data in cross-section time series analysis proves that greater levels of income in a county significantly diminishes electoral participation. On the other hand, when combining socioeconomic variables with institutional ones, the traditionally expected positive impact of income remains negative and statistically significant.[23]

To the best of my knowledge, all studies on the relationship between socioeconomic status and turnout have found a positive relationship between higher levels of individual income and turnout. Much debate surrounds the preponderance of income vs. education and this

[22] See table with regression results presented in the next section of this chapter.
[23] The regressions results for the model using cross-section time series without institutional variables are available upon request.

aggregate study shows that income does not appear to positively affect turnout. Unfortunately, legislative elections could not be analyzed given that house results can only be obtained at the district level and Senate results for each election only reflect the votes for the counties in the states where elections were conducted and counties where races did not take place would have to be treated as missing values, which presents a technical problem.

In the Mexican case, the cross sectional model ran for legislative elections shows that education is negatively related to turnout. In the chapter on Mexico, I analyzed the relationship between an index of socioeconomic status and turnout in Mexico and found a negative link between both. The specific finding that education is negatively related to turnout is thus consistent with previous conclusions and proves that an important factor of socioeconomic status, such as education, when isolated yields the same insight. Poverty on the other hand is negatively related to turnout[24]. This is in harmony with the discussion elaborated in the chapter on Mexico where I found that the most marginalized and impoverished municipalities were less active in elections than their close counterparts that were catalogued as municipalities type 2. Poverty depresses turnout in Mexican legislative elections when considering all the races from 1991 to 2003.

In the Mexican presidential elections, we find that education is positive, and that turnout increases when the percentage of voters with primary education increases. However the effect is very limited and it is not statistically significant. Poverty again has a similar effect of reducing

[24] In this case poverty in a municipality is defined as the percentage of inhabitants with income below the minimum wage.

turnout. Interestingly poverty depresses participation even more in the case of presidential elections than in legislative races.

V.3. Institutions and Turnout in Mexico and the United States

Most of the American literature focuses on the role of socioeconomic variables on turnout. Empirical studies of political participation have relied almost exclusively on the socioeconomic model as the theoretical framework guiding the expectations of who participates in the electoral arena. On the other hand, the comparative literature has concentrated on institutional variables to explain the important differences observed among industrial democracies. The principal aim of this chapter is to combine both socioeconomic and institutional variables obtained from aggregate data and to analyze their effect through the use of cross-sectional time series models.

V.3.1. The Variables

In this study, multipartyism was included to analyze the effective number of political parties running in legislative as well as presidential election. The Laakso and Taagepera measurement traditionally considers the number of seats obtained in the legislature, but for the aim of this study we based the measurement on the vote share that each party obtained instead of the seat share (Laakso and Taagepera, 1979). This alternative way to look at multipartyism allows capturing for differences among municipalities in Mexico and counties in the US to a fuller extent. Multipartyism was measured as $N=1/\Sigma v_i^2$ where v_i is the proportion of votes of the i-th party. As previously discussed in chapter 1 of this dissertation, the literature on institutional

analysis reveals that multipartyism discourages political participation mostly because voters do not elect governments but rather parties that then need to create coalitions in the legislature. Individual votes become less decisive in government formation, which in turn reduces voters' incentive to participate.

The second institutional variable considered in this analysis was competition which was measured simply as *C=Total votes obtained by the largest party/Total votes obtained by the second largest party*. Other scholars have used measurements of competition that simply consider winner's electoral margin (Settle and Abrams, 1976; Patterson and Caldeira, 1983; Lutz, 1991; Cox, 1988; Cox and Munger, 1989). These estimations of political competition based on electoral margins present several difficulties when comparing different political systems with different number of political parties. Margins of victory vary significantly with the number of political parties but in the case of this analysis, given the inclusion of a multipartyism variable, an estimation of closeness fulfills the purpose pursued.

One important factor to consider when including competition is the endogeneity problem. Candidates and parties no doubt strategically deploy resources in locations that tend to have higher levels of turnout. It becomes then difficult to define if competition stimulates turnout or if turnout is partially responsible for a higher degree of competition. In order to test for possible endogeneity, a series of models for each electoral year were ran using an instrumental variable, that is a variable correlated with competition but exogenous to turnout. The instrumental variable chosen in this case was lagged competition or competition from the previous electoral race. The

instrumental variable estimates looked similar to the estimates obtained on the non-lagged competition variable, which allows for considering competition as an exogenous variable in this application. In general terms, it assumed that competition gives parties further incentives to mobilize voters and thus fosters turnout.

Disproportionality as usually measured in the literature on institutional variables was not included in this analysis mostly because the formula for this variable requires that we evaluate the difference between vote percentages and seats percentages but when considering municipalities and counties as in this case, there is no variance in seats percentages and thus the measurement will not help explain differences in turnout at this level of analysis. Unicameralism was not included given that both countries have a bicameral system and finally compulsory voting was not considered because the lack of variance in this measure does not help explain differences among municipalities and counties.

V.3.2. The Model: The Use Of Cross-Section Time Series

In chapters 2 and 3, I have examined the effect of socioeconomic factors on electoral turnout using regression analysis for different elections in Mexico and the U.S. The results in chapters 2 and 3 are based on cross-sections for each electoral period at the presidential and legislative levels. The information we can obtain from the data can be further enhanced given the number of elections over time for each country. A cross-section time series approach can be employed to make full use of the available information. The statistical problem relies now on the independence across observations. In cross-sections statistical methods, we often assume that

observations are independent of each other. Yet, when we pool the data for different years it is very likely that the independence assumption is broken. That is, the electoral turnout of Cook County (Illinois) for the 2004 presidential election may not be independent from the turnout in Cook County in 2000.

There are two sources of variation for the estimated coefficients or two types of information we can obtain from cross-section time series. On the one hand, the cross-sectional information reflected in the changes in turnout across counties, and on the other, the time-series effect on change in turnout within counties. The functional form of the model can be defined as:

$$y_{it} = x_{it}\beta + \varepsilon_{it};\ i = 1,...,N; t = 1,...,T$$

Where the output y_{it} is the electoral turnout in county i at year t, x_{it} represents the socioeconomic and institutional covariates for each county at a given time, β is a vector of K coefficients, and ε_{it} is a disturbance term. The model can be estimated through some variant of OLS (Greene, 1997; Beck and Katz, 2004). There are two main approaches to generalize this model. The fixed effects model assumes that differences in the constant term can capture the differences across units, while the random effects approach assumes that the differences in the constant term represent a specific disturbance, similar to ε_{it}. The Hausman tests performed on each of the cross-section time-series models revealed that the random effects approach provided more efficient coefficients than the fixed effects one. In order to estimate the coefficients and deal with the possible correlation across observations, I used a generalized estimating equations (GEE) approach, a procedure similar to a quasi-likelihood estimation, which represents a generalization of maximum likelihood estimation (Liang and Zeger, 1986).

Table 5.7- Presidential Elections United States 1980-2004, cross-sectional time series models: output variable-turnout in US Presidential Elections 1980-2004

Covariate	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Multipartyism	-0.0146	0.0000			-0.0087	0.0000	-0.0088	0.0000	-0.0068	0.0000
Competition			0.0149	0.0000	0.0115	0.0000	0.0118	0.0000	0.0124	0.0000
Income							-0.2078	0.0000	-0.2356	0.0000
Education							0.1613	0.0000	0.1670	0.0000
Poverty									-0.4847	0.0000
Intercept	0.6249	0.0000	0.5668	0.0000	0.5917	0.0000	2.6262	0.0000	2.9437	0.0000
N	20825		20825		20825		20825		20825	
Number of groups	2975		2975		2975		2975		2975	
Prob > chi2	0.0000		0.0000		0.0000		0.0000		0.0000	

Note: P-values were calculated using robust standard errors

Table 5.8- Legislative Elections Mexico 1991-2003, cross-sectional time series models: output variable- turnout Mexican Legislative Elections 1991-2003

Covariate	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Multipartyism	-0.0009	0.3840			-0.0008	0.3940			-0.0007	0.4610
Competition			0.0002	0.0000	0.0002	0.0000			0.0002	0.0000
Education							-0.1553	0.0000	-0.1296	0.0000
Under MW							-0.1581	0.0000	-0.1532	0.0000
Intercept	0.5714	0.0000	0.5671	0.0000	0.5692	0.0000	0.7069	0.0000	0.6939	0.0000
N	11362		11362		11362		11362		11362	
Number of groups	2399		2399		2399		2399		2399	
Prob > chi2	0.3841		0.0000		0.0000		0.0000		0.0000	

Note: P-values were calculated using robust standard errors

Table 5.9- Presidential Elections Mexico 1994-2000, cross-sectional time series models: output variable- turnout Mexican Presidential Elections 1994-2000

Covariate	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|	Coef.	P>|t|
Multipartyism	-0.0124	0.0000			-0.0111	0.0010			-0.0189	0.0000
Competition			0.0005	0.0000	0.0003	0.0720			0.0008	0.0000
Education							0.0051	0.8240	0.0423	0.0750
Under MW							-0.1679	0.0000	-0.1634	0.0000
Intercept	0.6807	0.0000	0.6483	0.0000	0.6764	0.0000	0.7260	0.0000	0.7535	0.0000
N	4765		4748		4748		4767		4748	
Number of groups	2396		2396		2396		2396		2396	
Prob > chi2	0.0002		0.0003		0.0001		0.0000		0.0000	

Note: P-values were calculated using robust standard errors

The regressions results presented in this section show that turnout in US presidential elections is negatively related to multipartyism. This variable has less meaning in the context of American politics given that the electoral rules, in particular the establishment of the first past the post system, has lead to bipartyism and most of the third parties are small and weak contenders in the electoral arena. Nonetheless, it appears than whenever more political parties are present, turnout diminishes. This result is similar to what has been observed in other consolidated democracies throughout the developed world. Competition on the other hand, has a positive effect on turnout such that greater competition promotes more political participation. Again, this finding is consistent with the electoral behavior of other consolidated democracies of the industrialized world.

In the case of the Mexican legislative elections, multipartyism has a negative impact on turnout although the estimator is not statistically significant. This finding is similar to the results from the Jackman study (Jackman, 1987) which shows that an increased number of parties and a greater need for coalition building in the legislative tended to reduce the importance of the electoral outcome and therefore depressed participation. On the other hand, competition among political parties slightly increased turnout. This result is coherent with the existing literature and suggests that acute competition gives incentives to candidates and parties to mobilize the electorate, which in turn translates into a higher level of participation.

Once we include socioeconomic variables into the model, we find that education has a negative effect on turnout such that an increase in the percentage of voters that have primary education in the municipality decreases participation. However, an increase in the percentage of

voters that earn less than the minimum wage depresses turnout. In other words, income tends to have the predicted effect specified in the general socioeconomic model and very low income communities report lower levels of turnout than their richer counterparts. This phenomenon is similar to what occurs in the United States as previously shown.

In the case of Mexican presidential elections, multipatyism is statistically significant and slightly decreases electoral participation as expected. Competition on the other hand does not affect turnout. This is once again surprising especially if we consider that this variable tends to have a considerable impact on participation in other consolidated democracies. Once we include socioeconomic variables combined with institutional ones, we observe that similarly to the phenomenon described in the chapter on Mexico, the most impoverished communities, those with the larger percentage of voters with minimum wage are less prone to register high levels of turnout. Interestingly, when combining socioeconomic and institutional variables, education becomes a positive determinant of turnout which may suggest that more educated voters are to some extent more interested in participating in presidential elections than in midterm ones. The effect still remains small.

V.4. Discussion of the Results

Competition was not the mechanism that generated greater turnout in Mexico before the democratization process, given that *de facto* there was no competition and the results of the election were already known to everyone, that is, the hegemonic PRI would win. Nonetheless, the PRI structure promoted high levels of electoral participation as a way to legitimize its

candidate and in general its power. As Barry Ames discusses, "[S]ince the winner of a Mexican election (was) seldom in doubt, and because elections in Mexico indicate(d) political skill and regime legitimacy, the number of people turning out on election day may be as interesting as the direction of the vote. […] Feverish registration activity (which in the highly competitive Federal District could well have increased the party's percentage as well as total vote) seem(ed) to have been a result of the elite's belief that non-participation in the election (was) equivalent to apathy and non-support, and that apathy threaten(ed) the viability of the revolutionary Ideology (Ames, 1970, p.64)." The privileged mechanism to achieve this purpose was the use of the corporatist structure that allowed the PRI to bring voters to the booths and obtain extremely high levels of support. The case that best represents this strategy is the López Portillo election in which despite been the unique candidate to the presidency, turnout reached its highest level in modern Mexican political history.

Interestingly, competition nowadays does not affect turnout either. Despite intense electoral rivalry in the past general elections as well as midterm ones, the estimators obtained for this variable do not support the idea that contested races give extra incentive to voters to participate. Rational choice theory does not apply empirically in the case of Mexico although this institutional factor has some impact over the American case as shown in this chapter. Political parties have not fully capitalized the potential of mobilization techniques, and despite intense efforts to get out the vote in the 2000 election, the results are not encouraging.

Another important finding is that increased registration in the Mexican case did not result in increased electoral participation. Conclusions from the literature on Latin America have

shown that low turnout in this region is usually the product of ineffective registration systems (Pérez-Liñan, 2001). Similarly, authors such as Rosenstone and Hansen have argued that "voter turnout in the United States trails that in Europe because the United States has some of the world's most onerous registration requirements and one of the world's weakest party systems. Where institutional arrangements discourage citizens from taking part and political parties fail to mobilize citizens to act, participation in elections is low" (Rosenstone and Hansen, 1993, p. 203). Yet, the Mexican Electoral Institute was able to increase registration in the past years by making the electoral card, the main identification card in the country but this phenomenon did not translate into greater participation. In 1991, 81.8% of the voting age population was registered and this percentage increased to 84.2% by 2000. Nonetheless, turnout has decreased substantially during that same period of time and in the general 2006 elections it further diminished.

Despite predictions, greater institutional trust did not translate into higher electoral participation. The expectations of fraud in the past, reduced voters' incentive to participate, particularly for those with higher levels of socioeconomic status. As mentioned by McCann and Domínguez, [T]here was a negative relationship between levels of education, urbanization, and political interest, on the one hand, and belief in the decisiveness of elections for governance in the country, on the other. The achievement of Mexico's democratization was difficult precisely because so many of society's elites were alienated from those who governed them, making it more difficult to achieve a broad consensus to enact necessary changes. (By contrast, in the United States there is typically a positive correlation between socio-economic status and trust in the electoral process. (McCann and Domínguez, 1998, p. 487)"

According to the opinion polls used by these authors, the proportion of suspicious voters has fallen throughout the years for all demographic categories but the lack of trust remained much higher for those with educational attainment equivalent to a university degree. Indeed, in 1994, 59% of respondents with a university degree thought that the upcoming elections would be less than "clean" compared to 43% of those with secondary education or less. This phenomenon partially explains the differences in voting behavior observed across municipalities with divergences in socioeconomic status. As shown throughout the dissertation, municipalities with higher socioeconomic status tend to participate less than their counterparts who registered lower levels of quality of life. Between 1997 and 2000, citizens' evaluations of the political and electoral systems improved.

The Mexican version of the Comparative Study of Electoral Systems for 2000 (Estudio Comparativo de Sistemas Electorales del 2000), which polled 1766 respondents after the 2000 presidential election, reveals that overall Mexicans were more confident about the institutions than they were in 1997. In particular, when asked if they were satisfied with the functioning of the democracy in 2000, 57% of respondents said they were satisfied or relatively satisfied compared to 40.1% in 1997. Similarly, in 1997, when asked to evaluate on a scale from 1 to 5 where 5 was the highest possible grade and 1 was the lowest possible one, how free and "clean" elections were, respondents gave an overall grade of 3.6. However, by 2000, citizens' perception had improved and the overall grade for this same category increased to 3.8.

Surprisingly, even when voters appeared to be less suspicious about the transparency and fairness of elections, turnout diminished from 1994 to 2000 by 14.5 percentage points (turnout in

the 1994 presidential election considering voting age population was 78.5% and diminished to 64% in 2000). Despite a significant improvement in voters' confidence in the democratic system and its implications in this period of time, turnout does not seem to respond proportionally to citizens' perceptions. On the contrary, we observe a 17 % increase in respondents' satisfaction with democracy accompanied by a dramatic decrease in turnout.

According to a well-recognized pollster, "Consulta Mitofsky", in May 2006, the Federal Electoral Institute (IFE), in charge of coordinating elections, had a good reputation among citizens at large. The IFE who is now an independent institution and has worked hard in proving its neutrality and commitment to free and fair elections was considered the third most trustable institution in Mexico a few weeks before the 2006 election (Consulta Mitofsky, 2006). However, turnout did not respond to this improved perception of the electoral institutions. The IFE reports that electoral participation was 58.55% of registered voters (IFE, 2006). In 2006, according to Mitofsky, those with a university degree and graduate education trusted the IFE the least while secondary and high school graduates considered such institution more reliable than their counterparts.

Mexico's electoral behavior is increasingly similar to the electoral behavior found in other consolidated democracies of the developed world, especially the United States, in terms of turnout. Nonetheless, the socioeconomic determinants of turnout seem to be still quite different. While in the United States, education appears to be an important determinant of turnout, in Mexico this variable does not affect turnout for presidential elections and in the case of legislative elections it even depresses electoral participation. As discussed in this chapter, the

role of income in the United States is more complex than the literature had shown. Once we consider all US presidential elections and use cross-sectional time series models with aggregate data at the county level, then income negatively impacts turnout. In general terms, the socioeconomic status model for the US appears less convincing in light of the results of this chapter and in the case of Mexico, this model fails to explain turnout overall.

Institutional variables, in particular competition, do not help elucidate electoral turnout in Mexico either. Despite general predictions that increased competition leads to higher turnout, electoral behavior in Mexico does not respond adequately to this theoretical explanation. Higher levels of registration did not result in higher levels of turnout in the Mexican case. Finally, regardless of the improvement in individuals' perception of the political and electoral institutions, electoral participation did not respond to this higher level of trust. Understanding Mexican electoral behavior in the midst of the democratization process may well require a sub-national level analysis that considers the historical changes in the corporatist structure that the country has experienced. The readjustment process that the political structure has undergone and the significant changes experienced by the political parties have left some major actors deprived of a clear strategy to get out the vote.

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