

Structure, Party, Representation and Race:

The Puzzles of Black Education Policy

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Abstract

The 1982 amendments in Section 2 of the Voting Rights Act determined that electoral structural features were significant determinants of minority representation. The research regarding electoral system structure and representation, however, has produced conflicting results. This paper seeks to address two puzzles that remain in understanding black representation. The first puzzle examines the impact of at-large elections on African American representation. The second puzzle examines the quality of representation in different electoral structures; at-large and single member districts. Quality in this sense is defined as African-American representatives= ability to generate higher levels of benefits for the African-American community (more administrative and teaching positions for African Americans). This paper first provides a formal argument that explains the connection between electoral structures and representation for African Americans. It then moves to an empirical study using the 1800 largest school districts in the United States (based on an original survey conducted in 2001). In addition to explaining these puzzles, this paper includes how region (North and South) affects representation for African Americans in different electoral structures. It also shows how Democratic competitive states and Republican dominant states are the underlying explanation of these regional differences.

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The dramatic struggle of African Americans to mobilize and establish a political identity has evolved into a much larger struggle for participation and inclusion. The last 50 years have been characterized by a growing interest in African American politics especially with regard to representation. The research that examines electoral structures, policy influence, and the overall effectiveness of these representatives are heavily studied. Of these three areas, electoral structures appear to attract the most amount of attention. A majority of the literature on this topic concludes that the electoral success of African Americans can be attributed to the type of electoral system in which they are elected (Lublin 1997; Cannon 1999; Sass and Mehay 2003). Two puzzles remain in the literature. The first is the decline of relevance of some electoral structures, particularly the detrimental impact of at-large elections. The second concerns how the quality of African American representation among school board members is affected by various electoral systems. The quality of representation is determined by the ability of African American representatives to generate higher levels of benefits for the black community. Specifically, we are concerned with black school board member=s ability to hire black school administrators and teachers and whether this is affected by whether representatives are elected at-large or via single member districts. What is interesting is that scholars of representation rarely discuss the policy impact that African Americans have in different electoral systems. In other words, representational quantity is misconceived as sufficient while representational quality is disregarded. This paper begins by setting the two puzzles of African American representation in context. After formalizing the argument about how various structures should

affect the quality of representation, we then investigate how electoral structure affects the quantity and quality of representation in a national sample of the 1800 largest school districts in the United States.

Legal scholar, Lani Guinier (1991, 1111), suggests Aconstituents within isolated single-member districts have little influence over the behavior of representatives from other single-member districts. She argues that the system of at-large elections is the most beneficial electoral system because African American officeholders are able to build coalitions while in office, thus augmenting their effectiveness. An at-large electoral system, often referred to as a multimember district, is identical at the local level to a citywide election. In order for candidates to win, they must attract a majority of the votes cast throughout the entire jurisdiction.

Guinier=s idea of coalition building between African American representatives and non-black officials, however, may have an Achilles heel. In at-large systems black representatives may be more likely to downplay issues relative to the minority community in an attempt to fit into mainstream politics and win elections. This can be problematic because it implies that the representative will sacrifice responsiveness to the black community in order to appeal to Anglo constituents and retain his or her political base.

Contrary to Guinier=s theory about the effectiveness of black representatives in at-large systems, others argue that the system of ward elections is the most beneficial system for African American representatives (see Meier, et al. 2005; Leal et al. 2004). A ward electoral system, often referred to as a single-member district, permits candidates to win by securing a majority of the votes cast within a much smaller area with more homogeneity than that of an at-large system. This system is more advantageous for black representatives, the argument goes, because it is

easier for them to acquire seats and then advocate bills that represent the interest of the black community.

Electoral Systems and African American Representation

At-large versus ward elections have generated a lively debate on the quality of representation for African Americans. Those in favor of ward systems confirm that blacks are more likely to be elected in single-member districts than in at-large districts (Davidson and Korbel 1981; Engstrom and McDonald 1981; Stewart et.al 1989; Moncrief and Thompson 1992; Lublin 1999). Meier et al. (1989) in a study of school board representation found that ward elections along with economic and demographic factors provide greater representation for African Americans. Similarly, Davidson and Korbel (1981) analyzed 13 studies that allow 16 comparisons and concluded that changes from at-large to single member districts tend to increase the representation of minorities (see also Engstrom and McDonald 1981; Robinson and England 1981; Karnig and Welch 1982). When comparing at-large systems to ward systems, studies have found major differences in black representation. For instance, Engstrom and McDonald (1981) found that blacks are represented in higher proportions in ward elections than in those jurisdictions with at-large systems. They assert that in at-large systems where the black population constitutes roughly 10% of the city=s population, under representation is easily detectable. As the black population increases in these cities, under representation becomes even more apparent. Karnig and Welch (1982) find similar results.

Two sets of studies support the cause of at-large elections, one disputing the impact in general and one suggest that the impact has disappeared over time. The revisionist argument even goes as far to suggest that electoral structures have little, if any, causal effect on the election

of blacks (MacManus 1978). MacManus (1978) analyzes 243 central cities of Standard Metropolitan Statistical Areas (SMSAs) and concludes that electoral arrangements do not directly impose any significant impact on the election of blacks. An earlier study conducted by Leonard Cole (1974) also supports the revisionist argument. Cole's (1974) examination of 16 New Jersey cities led him to conclude that the role of structure in the representative process is not as important as socioeconomic factors in determining the electoral success of blacks.

Arrington and Watts' (1991) study of North Carolina school boards also found evidence that contradicted the belief that ward elections help in the electoral success of black school board members. Their results show that blacks are ostensibly under represented on North Carolina school boards, despite the number of single-member districts within the state.

The formal logic supporting these studies assumes that electorates are polarized along racial lines (that is, that race is a significant electoral cleavage) and that the single member districts are drawn in such a way that they are not microcosms of the overall jurisdiction (perhaps even gerrymandered to facilitate racial representation). In such circumstances, blacks and other minorities are likely to achieve greater quantity of representation in single member district systems than in at-large systems.

More recent work has suggested the ill-effects of at-large elections have declined either because most of the at-large systems in jurisdictions with large minority populations have been changed (see Welch 1990; Sass and Mehay 2000) or because black candidates have adapted their candidacies to realities of at-large elections.¹ The formal logic tying electoral structure to racial representation concludes that if the electorate is racially polarized and blacks are in the minority,

¹There are 154 school districts in the study with at least 15% black population and an at-large election system.

that the median voter will not be black and therefore, black candidates who stress racial issues will lose. A black candidate, however, can overcome this disadvantage by submerging racial issues and positioning himself or herself at the median voter.

Quality Versus Quantity Representation

Most of the debate about at-large elections and ward elections concerns the quantity of black representatives elected into office. The visibility of black officials in office, however, says nothing about how well they represent the interest of the black community. This visibility is often a form of descriptive representation. Pitkin (1967) defines descriptive representation as representatives that mirror the physical traits of their constituents. Jane Mansbridge (1999, 629) simplifies this definition and states that descriptive representation is when Black legislators represent Black constituents, women legislators represent women constituents, and so on. Using visibility as a measure of representation typically leads to racial head counting, which is only one aspect of representation (Davidson and Korbel 1981, 1004). When we quantify representation by the method of head counting, we are neglecting what really matters, responsiveness. For the purpose of this study responsiveness will be defined as quality representation. Eulau and Karps (1977) identify four components of responsiveness that constitute the nature of representation--policy, service, allocation, and symbolic responsiveness. Policy responsiveness is when the representative aligns policies with the interest of the represented. Service responsiveness involves the ability of the representative to obtain particular individual or group benefits for the represented. Allocation responsiveness refers to the representatives ability to secure policy benefits for the represented through pork barrel exchanges. Finally, symbolic responsiveness refers to public gestures that develop a sense of

trust and support between the representative and the represented.

All of these components can be associated with quality representation. Recall that the definition of quality representation is the ability of the African American representative to secure benefits for the black community. This study will focus on allocation responsiveness, the ability to hire additional black employees.

In analyzing how many African American representatives use pork barrel politics to secure benefits for the black community, we notice that some are more likely to make a trade-off between quality and quantity. Instead of these representatives making an effort to obtain benefits for this community, they only represent their constituents visibly. A representative characterized by mere visibility represents passively. It is often argued that African American representatives that are less likely to make a trade-off between quality and quantity are often found in ward systems. Lublin (1999) in his critique of the 1996 article published by Cameron, Epstein and O'Halloran finds that single member districts are vital to blacks being elected into office and that these districts bolster the quality of candidates elected. Some of the current literature that analyzes black representation concludes that both electoral systems, at-large and ward, could account for the visibility of black officeholders (Welch 1990). To fully grasp the nature of black representation, however, more research should deemphasize racial head counting as an adequate measure of African American representation and extend these studies to examine their quality.

Representation Outcomes

In the most direct study linking descriptive representation with responsiveness, Sass and Mehay (2003) analyze the relationship between electoral structures and political influence. The basis of their study examines whether or not black city council members have greater policy

influence in districts that use the system of at-large elections rather than the ward systems. They empirically test this proposition by estimating hiring for municipal police officers. The results of the study show that cities with an at-large electoral system hire a substantially greater proportion of black police officers (Sass and Mehay 2003, 334). These findings suggest one of two possibilities. The first possibility is that black representatives elected in an at-large system will have a significant amount of influence over policy decisions. The other possibility suggests that perhaps white representatives are responsive to the interests of the black community when elected at-large.

In contrast other studies have found that representatives elected via single member districts generate more benefits for minority constituents. A series of studies of urban school districts have also linked minority hiring to representation systems (Meier, Stewart, and England 1989; Meier and Stewart 1991; Meier et al. 2005; Robinson et al. 1985). Most of these studies, however, simply relate the quantity of representation to policy benefits rather than distinguish among the effectiveness of representatives elected in various systems. In the most directly relevant study, Meier et al. (2005) examine 1000+ Texas school districts to find that minority school board members elected in an at-large system are less effective in securing benefits. This finding suggests that the type of electoral systems does affect the responsiveness of minority school board members, which in turn determines the level in which minority administrators and teachers are hired.

Political Structure and the Logic of Representation

The literature on substantive minority representation is at times conflicting. By looking at black substantive outcomes in the educational sphere, we contribute empirical evidence that

clarifies a portion of the debate. The two systems we study, at-large and single member districts, provide an opportunity to consult the logic of formal theory to show that how electoral structure is linked to representational effectiveness. This section gives a formal overview pertinent to our analysis and concludes with a specific set of testable hypotheses.

Why might one expect that the quality of representation varies with political structure? That is, why might a black elected in an at-large system be less (or more) effective at pressing black interests than one elected from a single member district?² We begin by making three assumptions (albeit assumptions with a great deal of empirical support):

Assumption 1. Voters are rational and will vote for candidates most likely to represent their interests.

Assumption 2. Candidates are rational and, therefore, will seek to satisfy constituency interests (either because they seek reelection for its own sake or seek reelection to pursue policy goals).

Assumption 3. Ethnicity is an important political issue (that is, political preferences differ based on ethnicity), but blacks do not compose a majority of the electorate.

Assume a jurisdiction that is 80% Anglo and 20% black (the logic works for other percentages; the illustrations are just more obvious in this case). If the electorate is polarized (assumption 3), then for a black candidate to get elected, he or she must position the campaign at the median voter in an at-large system. This means that an elect-able black candidate must modify issue positions, and therefore post-election policy actions, to succeed in this system. The difficulty in moving to the median voter position in an at-large system means that minority candidates should

²This is a different question than the primary focus of the national districts literature, which asks how does drawing the districts affect the distribution of black and white representatives? That literature concerns the type of whites elected in such systems (that is, how open they are to black interests); our concern is the type of minorities elected to seats.

fare better quantitatively in single member district systems. In terms of quality of representation, however, Swain (1993) and Guinier argue that having minority candidates run and win in at-large elections improves eventual policy outcomes by increasing the likelihood that black elected officials will find coalition partners with white elected officials because they represent similar constituencies.

To illustrate precisely the differences in electoral systems and why conflicting hypotheses are generated, let us assume that the utility gained via representation (U) is the sum of the values sought by the representative (V) times the probability of attaining the values (P).

$$U = \sum PV$$

The advocates of ward elections are essentially arguing that the values (V) of at-large based representatives are different (e.g., they are less relevant to the minority community) from those in single member districts owing to the necessity of getting elected. The advocates of at-large elections counter that the probability (P) of achieving any values after election increase in at-large systems owing to the common constituencies and the potential for coalition partners. In short, whether ward or at-large elections generate better quality representation depends on whether the change in values (V) is greater or lesser than the change in the probability (P) of attaining the values.

By defining the match between black constituents and black representatives as the quality of representation, the argument suggests two contradictory hypotheses that the quality of minority representation will be greater (or lesser) in ward-based single member district systems than will the quality of representation in at-large systems. This hypothesis could be tested in a variety of ways, but we will focus simply on the distribution of employment opportunities, thus, generating the following testable hypotheses:

H₁ Minority representatives in ward-based single member district systems will be more (less) effective in hiring more minority administrators than will minority representatives in at-large systems, all other things being equal.

H₂ Minority representatives in ward-based single member district systems will be more (less) effective in hiring more minority teachers than will minority representatives in at-large systems, all other things being equal.

Given the wealth of studies at the national level that generate null results on this question and the large null findings at the state level (but see Preuhs 2006; Owens 2005; and Huxleian and Meier 2008), why might one expect different findings at the local level, that is, why might a minority representative who is not likely to be part of the majority on the school board still influence school board decisions? The different sizes of these legislative institutions is likely to make a great deal of difference. A single minority elected to a five person school board has a much greater chance of becoming the pivotal member on a vote than does a minority (or even 20 minorities) elected to a 435 person legislature. Large legislatures also have extensive rules and structures that limit what individual members can do. In a school board, small group dynamics will likely create different types of relationships and more opportunities for log rolling. Most school boards are also nonpartisan which allows for more fluid coalitional patterns than when pre-existing party organizations structure legislative interactions.

Data

The data for this analysis are drawn from multiple educational and governmental sources. Basic demographic and socioeconomic information was collected from the 2000 U.S. census. The data pertaining to school board representation, administrators, and teachers for 2001 came from an original survey of all districts with student populations over 5000, as of 1999. Of the

1831 districts, 1751 (95.6%) provided data on school board composition and 1532 (83.7%) provided data on administrators and teachers. Because we eliminate all school districts that have an African American majority and because some census data are coded as missing,³ the actual number of cases in the analysis is a bit less.

Puzzle 1. At-Large Elections and Black Representation

Although our concern is with the quality of representation rather than the quantity of representation, an initial assessment of the quantity of representation is in order and presents us with a puzzle that will serve as a key to addressing the representation quality issue. Table 1 relates African American population to African American representation on the school boards in three regressions. Column one uses a single independent variable, black population. Since the intercept of this equation is essentially zero, the slope coefficient can be interpreted as a representation ratio. An increase in one percentage point in black population is associated with a .985 percentage point increase in black representation. Because this figure is not significantly different from 1.0, or perfectly equitable representation, the results suggest that at least for school boards, blacks receive approximately the level of representation one would expect based on population alone. School boards are the anomalous institutions in American politics in this regard; black representation ratios are consistently less than one in other legislative bodies. Although one might speculate as to why this anomaly exists (e.g., the importance of education to the African American community, the abandonment of public schools by many white parents, etc.), at the present time no definitive explanation is available.

[Table 1 About Here]

³In a system with a small minority population, for example, there may not be sufficient black families to get an estimate of black home ownership.

The classic way to examine electoral structure is to create a set of interaction terms as recommended by Engstrom and MacDonald (1981). They proposed an equation that included black population, a dummy variable for ward electoral systems, and the interaction between the dummy variable and black population. We follow that recommendation with two slight adjustments. First, some school boards are appointed rather than elected, so we include another set of coefficients for appointive systems. Second, many school board selection processes are mixed with some members elected at-large and some by ward (and in some cases some are appointed). Rather than omitting the mixed systems, we substitute the proportion of members elected by ward (or appointed for that variable) in the interaction. This substitution means that our interpretation will compare pure ward with pure at-large systems but use the full range of cases for more efficient estimates.

The second column of Table 1 contains this interactive regression, and the third column then adds four control variables that the literature suggests can affect black electoral success: black education levels (% with college degrees), black median family income, black home ownership, and percent whites living in poverty. Only the white poverty measure is statistically significant implying that black representation on school boards is almost exclusively a function of black population and electoral structure.

Using the results in column 3, in a pure at-large system, both the ward elections variable, the appointive variable, and their interactions will be equal to zero. The relationship between black population and black representation reduces to the following:

$$\text{Representation} = -.899 + 1.030 \text{ Population}$$

Because the intercept is not significant, this equation indicates that blacks in at-large systems are

over-represented by approximately 3 percent. For a pure ward system, the appointive variables are equal to zero and the second set of coefficients (the ward set) can be added to the initial at-large coefficients as follows:

$$\text{Representation} = -.586 + .211 + (1.030 - .137) \text{Population}$$

$$\text{Representation} = -.375 + .893 \text{Population}$$

Because the ward intercept term is not significant, one concludes there is no difference in intercepts in the two equations. The slope interaction, however, is statistically significant; blacks receive less representation in ward based systems, a one percentage point increase in black population is associated with only a .893 percentage point increase in black representation. While the effective difference in these two systems is not large (with 40 percent of the population, black representation is predicted to be 40.3% in an at-large system and 35.3% in a ward system), the differences are statistically significant and show the opposite effect of electoral systems on representation compared to Latinos (Leal et al. 2004).

For appointive systems, neither the slope difference nor the intercept difference is statistically significant. The appropriate conclusion is that appointive systems provide approximately the same level of school board representation to blacks as do at-large systems.

Table 1 presents the first puzzle of African American representation in stark terms. African American politicians have somehow over come the logical limitations of at-large elections to the extent that they have not just neutralized the impact but to the point where black electoral fortunes are better in at-large elections. This finding is clearly a puzzle in the literature given that there are no formal or even anecdotal discussions of why at-large elections could benefit African Americans when they are a minority of the population.

We considered four explanations for this phenomena and found each of them wanting.

First, because school board elections are characterized by low voter turnout, we considered whether African Americans might have higher incentives to vote in school board elections. To assess this hypothesis, we substitute the racial distribution of the population with school aged children for that of population and reran the models. The results were similar to those found in table 1.

Second, we probed whether the differences might be a function of the different age distributions of African Americans and others. Younger populations are disadvantaged because those under the age of 18 cannot vote. When we substituted the racial percentages of voting age population in the models in Table 1, the results were identical.

Third, African American politicians have several decades of experience in running for and winning urban elections. This experience could translate into great levels of skill that might provide an advantage in running in at-large elections. Although we have no measure of candidate skill, we do have a prior measure from 1992 of successful black candidates. When we control for prior successful black candidates, however, the impact of at-large elections remains undiminished.

Fourth, one might think these results might be an anomaly generated by demographic trends. Many whites left urban school systems as the result of desegregation or other migration reasons and created many school districts with de facto black majorities. More recently large numbers of Latinos have moved into these urban districts. Might the results reflect black majorities or black pluralities exploiting the electoral system in regard to Latino citizens. We assessed the possibility even though the analysis deleted all school districts with an African American population majority. Controlling for Latino population, however, had no impact on the basic findings.

Having eliminated what we thought were the four obvious explanations for our findings, we then reran the analysis by region of the country. Education politics and education policy has differed dramatically across the United States as the result of the de jure segregation of schools in the South and the imposition of the *Voting Rights Act* on southern jurisdictions (owing to their low registration and turnout figures). We classified as Southern any district that was located in a state that operated a de jure segregated school system in 1954 when the Supreme Court declared such systems unconstitutional for the first time.⁴

Most empirical studies support the theoretical expectations about region. The scholarship in this area yields inconsistent findings and does not examine the quality of representation. Sass and Mehay (1995) examine the consequence of the Voting Rights Act in moving from at-large to district elections for cities. In a study of 2,500 U.S. cities with varying populations, they found that district elections had a positive influence on black representation in city councils in 1981. By examining this relationship by region, the analysis found that African Americans fared worse in terms of representation in Southern cities with at-large elections in 1981 than any other region. District elections however had a substantial positive effect on electoral success of African Americans in the South. Although district elections had a positive impact on African American representation ratios for both large and small Southern cities, the increase was greater in cities with populations of 10,000 or more.

Bullock and MacManus (1993) examine the relationship between race, electoral structure and representation by region arguing that the South=s larger concentration of African Americans

⁴This creates a larger number of Southern states than does the 11 states of the old Confederacy rule. It includes border states such as Kansas, Missouri, and Oklahoma, as well as states such as Maryland and Delaware. If region is to represent the unique political and educational history of the South, the classification needs to include states that had policies consistent with that political history.

and deep racial history could affect this relationship. This study examines electoral systems in detail by distinguishing different types of at-large electoral structures. The analysis finds that in 1980, Southern cities (populations 25,000+) that used at-large election by post or that had pure at-large systems decreased representation for African American city council members. At-large elections with residency requirements, or those that combine pure at-large elections with staggered terms, however represented African Americans at nearly the same level as single member districts.

Sass and Pitman (2000) examine African-American representation on city councils in Southern U.S. cities from 1970-1996. The findings indicate that a transition from at-large elections to district elections had a large impact on black representation, but that effect nearly diminished in 1991. They also found that the representation of African Americans in at-large elections increased steadily from 1970 to 1991. From 1991 to 1996 the representation for African Americans in at-large elections seemed to level off. The study explains that district elections seem to be the primary vehicle for African American representation in the South.

Welch (1990) also finds that in cities with at least 5 percent African American population, black representation in at-large and district elections were lower in the South than in the North. In Southern cities with at least 10 percent black population, however, at-large systems were more equitable than those in the North. She also finds that district systems slightly over represent blacks in the North compared to the South.

The regional regressions in Table 2 are striking and show a dramatic pattern. Transforming the equations, reveals the following relationships for Southern districts:

$$\begin{array}{ll} \text{At-large} & \text{Seats} = .42 + .76 \text{ Population} \\ \text{Wards} & \text{Seats} = -.01 + .88 \text{ Population} \end{array}$$

In the South, at-large elections significantly under represent African Americans; they receive only 76% of the representation that their population would suggest. While African Americans remain under represented in ward systems, they achieve a statistically significant increase in representation compared to at-large systems. In contrast, the northern districts show a dramatically different result:

$$\text{At-large Seats} = -2.40 + 1.20 \text{ Population}$$

$$\text{Wards Seats} = -2.07 + 1.04 \text{ Population}$$

In both systems there is a modest threshold effect (as demonstrated by the significant intercept), but in at-large systems in the North African Americans gain 20% more representation than their population numbers merit while in ward systems their representation yield is not statistically different from their population numbers.

[Table 2 About Here]

So our tale of two regions indicates that the South produces what are expected results. At-large systems operate to the detriment of African Americans in terms of representation. In the North, however, at-large systems create a large positive bias in favor of African American representation.

Region, however, is not an adequate political explanation since it is likely a surrogate for a variety of factors that are spatially correlated. In investigating the regional differences, it is important to focus on the North since the pattern in the South fits both theoretical expectations and the overall pattern found recently by Leal et al. for Latino representation in school boards. How might African Americans overcome the biases of at-large elections in the North and who might have the incentive to create a system that would overcome these biases? The logical way to overcome the biases, is to put together a slate of candidates to run as a block in an at-large

election. If this slate fairly or over represented blacks and the coalition supporting the slate was a majority, one could generate at-large election results very much like those for the Northern districts. Who might have an incentive to put together such a slate? The obvious answer is some a group that needs African American votes which points directly to the Democratic Party. When might the Democratic Party have an incentive to put together coalitions and slates of candidates for school board elections (particularly given that many of these elections are on their face nonpartisan)? Again, the obvious answer is that Democrats would have this incentive if they are a majority in the school district and if they need African American votes to win elections other than school board elections. Based of this logic, the implication is that if the Democratic Party can field competitive candidates for other races such as state-wide contests, they would also have the incentive to put together a coalitional slate at the school district level to build stronger ties between the party and African American voters.

Might it be possible to test this logic? We selected the last nine statewide elections in each state for Governor or Senate (prior to 2001 the time of this sample). We then divided the sample into those states where Democrats were generally competitive (winning four or more of the nine contests) and those states where Democrats were generally not competitive (winning three or fewer contest). ⁵ The results of regressions based on this split are shown in Table 3.

[Table 3 About Here]

Again we combined the regressions to generate a single regression for ward and at-large districts in states with potential Democratic victories and those without as follows:

Democratic competitive states

⁵This appears to be the optimal point to split the sample as other splits do not present results as clear as those presented here. The split still contains error since some of these victories might well be the result of a talented candidate running independently of the party.

$$\text{At-large} \quad \text{Representation} = -1.89 + 1.19 \text{ Population}$$

$$\text{Ward} \quad \text{Representation} = -1.01 + .86 \text{ Population}$$

Republican Dominant states

$$\text{At-large} \quad \text{Representation} = -1.50 + .84 \text{ Population}$$

$$\text{Ward} \quad \text{Representation} = -2.09 + 1.00 \text{ Population}$$

These results show a pattern that is consistent with the Democratic party acting to create coalitions for the school board in states where the party is competitive for state-wide races. In the Democratic competitive states, African Americans gain 120% of the representation that their population merits (minus a small threshold effect) in at-large elections but only 86% of the representation in ward systems. In Republican dominant states, African Americans are significantly under represented in at-large systems, and they approach representational parity in ward systems. Partisanship and party incentives, therefore, appear to be produced results that are consistent with the existing empirical patterns.

Puzzle 2: The Quality of Black Representation

Our initial concern was the quality of representation that was generated under different electoral structures. Because region and party had such a dramatic impact on the quantity of representation, this portion of the analysis will include these variables to determine if the impact on quantity is translated into an impact on quality.

The first test of the quality of black representation does not consider region and is shown in Table 4 where the dependent variable is the percentage of black administrators. This equation controls for the same set of demographics as table 1 (black education, black income, black home ownership, white poverty) which in this case are characteristics of the labor pool. The equation also includes the percentage of black population and a set of variables for black representation.

Our test of quality is the association between black representation and black administrators when controlling for black population and other labor pool factors. The first regression, in columns 1 and 2, estimates the impact of electoral structure on black employment in the same way as Sass and Mehay (2003) with a dummy variable for ward systems (and another for appointive systems). These results show that ward systems generate .658 percentage points more black administrators all other things being equal, and appointive systems generate 1.807 percentage points more black administrators. Neither coefficient is significant at the .05 level (but they are at the .10 level).

[Table 4 About Here]

The Sass and Mehay specification, however, essentially tests for an intercept change effect. It is quite possible that if ward elections (or another system) produce more effective representation that it will change the value of the slope coefficient linking representation to black administrators. To account for this possibility, we include an interaction term by multiplying the ward systems variable by school board representation (and including a similar variable for appointive systems). These estimates in columns 3 and 4 illustrate a somewhat different story. The appointive coefficients are insignificant, thus, the conclusion is that appointive systems produce the same representation quality that at-large systems do. For ward systems both the intercept and the slope are significantly different from at-large systems. The intercept is significantly more positive while the slope is significant and negative. Calculating the two partial regression lines shows the following:

$$\text{At-large Administrators} = 1.019 + .259 (\text{Representation})$$

$$\text{Wards Administrators} = 2.316 + .192 (\text{Representation})$$

demonstrates that ward systems provide a superior translation of representation into

administrative positions when black representation is below 19.4% (or in 78 percent of the cases) and at-large systems provide a superior level of representation above 19.4%, all other things being equal. In terms of control variables, black population matters a great deal, in fact is the single largest influence on black administrative positions; and white poverty is negatively associated with more black administrators.

Because we suspect that the results in table 4 would be clarified by a focus on region or the ability of the Democratic party to win elections, we first reanalyze the equations by region in Table 5. The regional effect is immediately apparent. We take the respective coefficients to calculate the regressions for the Southern states, we find the following:

$$\text{At-large Administrators} = 2.76 + .167 \text{ Representation}$$

$$\text{Wards Administrators} = 4.28 + .223 \text{ Representation}$$

Although the wards equation indicates that black representatives are more effective at all levels of representation in the South (compared to at-large elected representatives), the ward times representation coefficient is not statistically significant. However, this likely reflects the significant intercept term for wards. When the models are reestimated without the ward intercept term, the at-large coefficient drops to .139 and the ward coefficient becomes .250 and is statistically different from the at-large regression slope. The conclusion is that wards provide better quality representation for blacks in the South.

[Table 5 About Here]

Turning to the North, we find the opposite pattern but one very similar to the quantity of representation results:

$$\text{At-large Administrators} = .329 + .298 \text{ Representation}$$

$$\text{Ward Administrators} = 1.20 + .096 \text{ Representation}$$

Except for districts with fewer than five percent black population, black school board members in at-large systems are more substantively effective at gaining administrative positions in the North.

Turning now to the administrators equations but separating the districts by whether or not the Democratic party can successfully challenge for a state wide office, we see a relatively similar pattern. For those districts that are in states where Democrats are competitive (analogous to the Northern districts), we get the following representational impacts (Table 6):

$$\text{At-large Administrators} = 1.36 + .287 \text{ Representation}$$

$$\text{Ward Administrators} = 2.39 + .201 \text{ Representation}$$

Although these results are not as dramatic as the regional ones for the North, the differences are statistically significant and consistent with the hypothesis. For districts that are dominated by the Republican party, the following equations can be derived:

$$\text{At-large Administrators} = .99 + .166 \text{ Representation}$$

$$\text{Ward Administrators} = 2.30 + .170 \text{ Representation}$$

In this case the representation coefficients are not statistically different from each other (although they are from zero) but that is partly being disguised by the much larger intercept for the ward elections. When one considers the statistically significant ward intercept, ward elections are always better for African Americans in Republican dominant states in terms of the quality of representation.

[Table 6 About Here]

Sass and Mehay based their analysis on street level hiring, police officers, so that a better comparison is likely to be the hiring of teachers rather than the hiring of administrators. Table 7 provides estimates both using the Sass and Mehay specification and using the more elaborate

interaction specification of Meier et al. (2005). To the set of variables included in Table 4, we now include the percentage of black administrators since administrators are the ones doing the actual hiring of teachers. The difference in the specifications is substantively important. The first two columns (the Sass and Mehay specification) indicate that black representation has a modest but significant impact on black teachers (the largest influences are black administrators and black population) and that both ward and appointive systems are significantly more effective. This conclusion, however, needs to be qualified given the significant large intercept term (substantively the slope term only generates positive numbers given the intercept term at extremely high levels of representation, 77%+).

[Table 7 About Here]

The interactive specification in columns 3 and 4 gives a much different interpretation of representational quality. The at-large slope coefficient is negative although not statistically significant, meaning that black representation on school boards in at-large systems has no influence at all on the hiring of black teachers. In contrast, both the ward and the appointive slopes indicate that greater representation translates into more black teachers in the class room. For ward systems, it takes approximately 10 percent greater representation to increase teacher representation by one percentage point; for appointive systems it takes about a six percent increase.

Table 7, of course, contains all districts and the previous analysis on administrators clearly showed an interaction with the region/partisan variable suggesting that further analysis in that direction is a worthwhile undertaking. Table 8 replicates Table 7 but dividing the sample via region. Let us first look at the Northern districts where the prediction is that at-large electoral systems will be more beneficial. The equations for the two electoral forms are as follows:

$$\text{At-large Teachers} = -.729 + .065 \text{ Representation}$$

$$\text{Ward Teachers} = -.528 + .038 \text{ Representation}$$

Although the impacts are not large, as expected given the dominance of administrators in the equation, the results demonstrate that black administrators are more effective at increasing the number of black teachers (in Northern districts) when they are elected at-large rather than by ward. The slope coefficients are statistically different from each other. Turning to Southern districts, we get the following:

$$\text{At-large Teachers} = -2.47 - .025 \text{ Representation}$$

$$\text{Ward Teachers} = -2.78 + .102 \text{ Representation}$$

In this case, representation no longer has a direct impact on teacher hiring in at-large systems in the South. Only in ward systems does school board representation continue to matter for the employment of black teachers.

[Table 8 About Here]

Our final table replicates the teacher impacts but for partisan electoral success. For the districts that are in states likely to produce competitive races for Democrats, we get the following results:

$$\text{At-large Teachers} = -1.54 - .026 \text{ Representation}$$

$$\text{Ward Teachers} = -1.66 + .088 \text{ Representation}$$

Here for the first time we get results for the partisan thesis that are inconsistent with the regional findings and not as predicted. Ward representation, in this case, is more effective than at-large election in the Democratic-competitive states. These are direct impacts, however, and do not include the large indirect impact that school board representatives have via their influence on the hiring of black administrators. Those impacts are much larger and overcome the results of the

direct impacts. Finally, for the Republican dominant states, we get results are more supportive of the partisan hypothesis:

$$\text{At-large Teachers} = -1.61 + .026 \text{ Representation}$$

$$\text{Ward Teachers} = -1.44 + .104 \text{ Representation}$$

In this case ward representation is superior to at-large representation at all levels of representation.

[Table 9 About Here]

Conclusions

This analysis explored two puzzles regarding black representation in education policy. The first puzzle concerned the quality of representation in different electoral systems. The second puzzle involved how African Americans have overcome the biases of at-large elections. We find that African American school board members have overcome the limitations of at-large elections. In assessing exactly *how* African Americans have done this, a new theoretical idea was postulated. The findings indicate that one possible way to overcome such bias is through putting together a slate of candidates to run as a block in at-large electoral systems. In competitive Democratic states, African-American representation in at-large elections is nearly 34 percent higher than it is in ward elections. Our findings thus, indicate that partisanship is a salient factor in securing adequate representation for African Americans in systems where they were traditionally under represented. When this relationship is examined taking into consideration the other puzzle of quality representation, we find that partisanship and party incentives are important in predicting benefits for the African American community in at-large electoral systems. Specifically, in Democratic competitive states, representatives elected at-large are able to generate more African American administrators than representatives elected in wards; in

Republican dominated states, representatives elected in single member districts produced higher quality representation than those elected at-large. In considering the quality of representation measured as the percentage of black teachers or street-level bureaucrats, we find that in both Democratic and Republican dominant states that ward elections are more effective than at-large systems.

Our findings suggest that African American school board members cannot only overcome the biases of at-large election systems, but they can also generate benefits for the African American community in those systems in certain circumstances. This study provides interesting explanations for the various inconsistent findings regarding race, electoral structure and representation in the extant literature. This study suggests that regional variation is important in explaining the quality of representation, but that this regional variation reflects state politics and its role in generating the quantity and quality of representation for African Americans.

The findings here are provocative when set into the existing literature. Work on Latino representation shows that ward systems consistently produce higher quality representation than at-large systems and that appointive systems generate no benefits at all to the minority community (Leal et al. 2004). A second study comparing both Latino and black representation on Texas school districts found that ward based elections generated higher quality representation for both groups (Meier et al. 2005). These findings then pose new puzzles: Why is black representation different from Latino representation in the two national studies, and why is black representation different in the national sample from an assessment in all Texas school districts? Does regional variation impact the quality of representation for Latino politicians? Additionally, does the partisanship and party incentive hypothesis produce similar results for Latino representation?

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Table 1. The Impact of Electoral Structure on the Quantity of Black Representation: School Board Seats

Independent Variable	Dependent Variable		
	% Blacks on School Board		
	Slope	Slope	Slope
Intercept	-.150 (0.55)	-.586 (1.77)	-.899 (1.09)
Black Population Percentage	.985 (51.16)	1.074 (35.07)	1.030 (32.15)
Ward Elections	-	.832 (1.32)	.211 (0.32)
Ward x Population Percentage	-	-.178 (4.09)	-.137 (3.07)
Appointed System	-	5.237 (2.26)	4.326 (1.82)
Appointed x Black Population	-	-.091 (0.90)	-.039 (0.38)
Black Education (College %)	-	-	-.017 (0.90)
Black Family Income (000s)	-	-	.011 (0.41)
Black Home Ownership	-	-	-.007 (0.70)
White Poverty Percentage	-	-	.200 (3.12)
R Squared	.61	.62	.61
F	1616.96	537.57	285.37
Standard Error	8.64	8.57	8.57
N	1692	1689	1625

Districts where Blacks are less than 50% of the total population.

t-scores in parentheses

Table 2. The Impact of Electoral Structure on the Quantity of Black Representation: Regional Variation

Independent Variable	Dependent Variable	% Blacks on School Board	
		South Slope	North Slope
Intercept		.414 (0.44)	-2.398 (4.87)
Black Population Percentage		.755 (14.15)	1.196 (31.45)
Ward Elections	-	-.430 (0.39)	.338 (0.43)
Ward x Population Percentage	-	.115 (1.71)	-.162 (2.45)
Appointed System	-	13.412 (3.49)	-1.330 (0.46)
Appointed x Black Population	-	-.167 (1.07)	.117 (0.88)
White Poverty Percentage	-	.041 (0.46)	.310 (4.23)
R Squared		.63	.62
F		165.88	284.37
Standard Error		8.38	8.22
N		598	1052

Districts where Blacks are less than 50% of the total population.

t-scores in parentheses

Table 3. Partisan Fortunes and the Impact of Structure on Representation:

School Boards

Independent Variable	Dependent Variable	% Blacks on School Board	
		Republican Slope	Democratic Slope
Intercept		-1.495 (1.97)	-1.831 (3.46)
Black Population Percentage		.842 (18.23)	1.187 (28.95)
Ward Elections		-.599 (0.60)	.822 (0.99)
Ward x Population Percentage		.153 (2.17)	-.331 (5.92)
Appointed System		-1.012 (0.14)	5.021 (1.99)
Appointed x Black Population		.176 (0.77)	-.155 (1.32)
White Poverty Percentage		.282 (2.98)	.188 (2.70)
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R Squared		.61	.64
F		148.28	307.94
Standard Error		8.28	8.47
N		582	1068

Districts where Blacks are less than 50% of the total population.

t-scores in parentheses

Table 3. Partisan Fortunes and the Impact of Structure on Representation:

School Boards

Independent Variable	Dependent Variable	% Blacks on School Board	
		Republican Slope	Democratic Slope
Intercept		-.885 (1.52)	-1.090 (2.56)
Black Population Percentage		.827 (18.08)	1.197 (29.24)
Ward Elections		-.577 (0.59)	1.164 (1.42)
Ward x Population Percentage		.140 (2.02)	-.339 (6.06)
Appointed System		2.606 (0.37)	5.046 (2.00)
Appointed x Black Population		-.004 (0.02)	-.177 (1.49)
White Poverty Percentage		.001 (4.64)	.000 (1.57)
R Squared		.62	.63
F		153.58	305.76
Standard Error		8.19	8.49
N		582	1068

Districts where Blacks are less than 50% of the total population.

t-scores in parentheses

**Table 4. The Effectiveness of Representatives Elected
By Different Systems - Hiring Black Administrators**

Dependent = Percent Black Administrators

<u>Independent Variable</u>		<u>Slope</u>	<u>t-score</u>	
Intercept	1.184	1.91	1.019	1.63
Black Population Percentage	.737	30.96	.749	30.72
Board Representation Percentage	.241	12.86	.259	12.63
Ward Elections	.658	1.68	1.297	2.77
Ward x Representation	C		-.067	2.44
Appointed System	1.807	1.71	.952	0.53
Appointed x Representation	C		.015	0.24
Black Education (College)	.008	0.57	.010	0.65
Black Income (000s)	-.005	0.27	-.005	0.30
Black Home Ownership	-.005	0.71	-.006	0.80
White Poverty Percentage	-.201	4.15	-.206	4.26

R Squared	.76		.76	
F	549.73		441.04	
Standard Error	6.06		6.05	
N	1377		1377	

Districts where Blacks are less than 50% of the total population.

**Table 5. Regional Effects and The Effectiveness of Representatives Elected
By Different Systems - Hiring Black Administrators**

Independent Variable	Dependent = Percent Black Administrators			
	South		North	
	Slope	t-score	Slope	t-score
Intercept	2.762	1.99	.329	0.41
Black Population Percentage	.745	19.25	.710	21.06
Board Representation Percentage	.167	3.64	.298	13.24
Ward Elections	1.526	1.75	.868	2.77
Ward x Representation	.056	1.08	-.202	5.63
Appointed System	2.743	0.65	.647	0.61
Appointed x Representation	.008	0.05	.038	0.61
Black Education (College)	-.005	0.13	.012	0.78
Black Income (000s)	.000	0.02	.000	0.09
Black Home Ownership	-.007	0.46	-.004	0.53
White Poverty Percentage	-.381	4.44	-.100	1.61
R Squared	.76		.74	
F	170.27		232.04	
Standard Error	6.92		5.26	
N	552		824	

Districts where Blacks are less than 50% of the total population.

**Table 6. Partisanship and The Effectiveness of Representatives Elected
By Different Systems - Hiring Black Administrators**

<u>Independent Variable</u>	Dependent = Percent Black Administrators			
	Republican		Democratic	
	<u>Slope</u>	<u>t-score</u>	<u>Slope</u>	<u>t-score</u>
Intercept	.995	0.90	1.357	1.47
Black Population Percentage	.742	19.05	.756	23.75
Board Representation Percentage	.166	4.06	.287	12.04
Ward Elections	1.320	1.70	1.043	1.76
Ward x Representation	.004	0.09	-.086	2.49
Appointed System	15.046	1.97	.213	0.12
Appointed x Representation	-.203	0.94	-.019	0.28
Black Education (College)	-.008	0.34	.024	1.12
Black Income (000s)	.000	0.03	-.001	0.72
Black Home Ownership	.002	0.14	-.007	0.76
White Poverty Percentage	-.188	2.13	-.236	3.83
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R Squared	.75		.78	
F	141.87		305.11	
Standard Error	6.19		5.94	
N	490		887	
Districts where Blacks are less than 50% of the total population.				

Table 7. The Effectiveness of Representatives Elected

By Different Systems - Teachers

Dependent = Percent Black Teachers

<u>Independent Variable</u>		<u>Slope</u>	<u>t-score</u>	
Intercept	-1.930	5.35	-1.557	4.36
Black Population Percentage	.329	18.20	.303	16.67
Board Representation Percentage	.025	2.19	-.011	0.86
Ward Elections	.870	3.80	-.033	0.12
Ward x Representation	C		.101	6.42
Appointed System	1.874	3.06	-1.457	1.41
Appointed x Representation	C		.172	4.76
Black Education (College)	.013	1.55	.011	1.32
Black Income (000s)	.000	0.01	.001	0.08
Black Home Ownership	.009	2.12	.009	2.10
White Poverty Percentage	.058	2.04	.068	2.43
Percent Black Administrators	.353	22.37	.358	23.12

R Squared	.84		.85	
F	813.00		695.91	
Standard Error	3.52		3.45	
N	1371		1371	

Districts where Blacks are less than 50% of the total population.

Table 8. Regions and The Effectiveness of Representatives Elected

By Different Systems - Teachers

Independent Variable	Dependent = Percent Black Teachers			
	South		North	
	Slope	t-score	Slope	t-score
Intercept	-2.465	2.92	-.729	1.87
Black Population Percentage	.315	10.33	.235	11.62
Board Representation Percentage	-.025	1.91	.065	5.41
Ward Elections	-.319	0.60	.147	0.57
Ward x Representation	.128	4.05	-.037	2.13
Appointed System	-4.918	1.91	-.094	0.10
Appointed x Representation	.273	2.87	.165	5.48
Black Education (College)	.030	1.36	-.002	0.30
Black Income (000s)	.000	0.35	.001	1.26
Black Home Ownership	.009	0.93	.003	0.79
White Poverty Percentage	.152	2.86	.009	0.31
Percent Black Administrators	.395	15.14	.284	16.79
R Squared	.85		.83	
F	282.80		361.81	
Standard Error	4.19		2.52	
N	551		820	

Districts where Blacks are less than 50% of the total population.

Table 9. Partisanship and the Effectiveness of Representatives Elected

By Different Systems - Teachers

Independent Variable	Dependent = Percent Black Teachers			
	Republican		Democratic	
	Slope	t-score	Slope	t-score
Intercept	-1.611	2.63	-1.544	2.90
Black Population Percentage	.310	10.71	.295	12.54
Board Representation Percentage	.026	1.13	-.026	1.78
Ward Elections	.173	0.40	-.119	0.35
Ward x Representation	.078	2.95	.114	5.76
Appointed System	1.566	0.37	-1.430	1.35
Appointed x Representation	.288	2.43	.110	2.82
Black Education (College)	.018	1.37	.002	0.17
Black Income (000s)	.000	0.21	.001	0.49
Black Home Ownership	.007	1.00	.011	1.96
White Poverty Percentage	.050	1.03	.069	1.94
Percent Black Administrators	.304	12.08	.386	19.80
R Squared	.85		.86	
F	248.19		469.29	
Standard Error	3.40		3.41	
N	488		883	

Districts where Blacks are less than 50% of the total population.