Playing Favorites: How Parties Distribute School Finance by Income and Race

Christopher Adolph
Department of Government
Harvard University

This Draft: June 21, 2001 Comments by email are welcome at cadolph@fas.harvard.edu

Keywords: School finance, parties, inequality

A partisan legislative logic influences the distribution of school funding in the American states. Regression analysis and simulation using data on state aid to American school districts from 1992-1997 reveals three aspects of partisan education policy. First, partisan state governments allocate resources towards their core constituents—as grouped by income and race—while matching each other in funding the median voter. Second, students in low income or densely black districts benefit substantially from Democratic control of the state government, but receive a smaller share of the state education budget under Republican regimes. Finally, the party-mediated effect of race on educational resource distribution is even greater than the party-mediated income bias.

Free public education is the foundation of equal opportunity in America, and state aid to poor school districts is the key to leveling the playing field. Yet most school finance equalization schemes promote a peculiar sort of equal opportunity: an arbitrary 'equal minimum' for the disadvantaged that is seldom combined with meaningful limits on education spending by the affluent (Kozol, 1991). Even this tenuous compromise conceals enduring political conflict over the distribution of opportunity. Once in control of state government, the major parties manage to tilt the distribution of state education aid toward the racial and economic coalitions they represent.

I develop a theory of the politics of educational aid in decentralized school systems which holds that parties structure the distribution of state aid to resolve multiple, conflicting pressures on legislators. I test this theory using data from all American school districts over the years 1994-1997, and illustrate the results by simulating the effects of partisan government on the relative state aid to students of different ethnicities and income levels. A discussion of implications for social policy and segregation follows.

The Partisan Politics of School Finance

Goals and Constraints

Relatively little research directs explicit attention to the political determinants of the level or distribution of school funding. Some exceptions are Poterba (1997), who found that states with older populations favor lower per pupil spending, and de Bartolome (1997), who argues that greater inequality produces more redistributive patterns of state aid. Boix (1998) provides a recent examination of the effect of partisan politics on education budgets, but in the European context of centralized school finance. Where education spending is centralized, the size of the state education budget becomes a question of redistributive policy and the scene of party-organized class conflict. Low-skilled, low-income families want more public spending, since it raises their children's expected earnings (largely at the expense of higher taxes on the middle-class). In Europe, left wing

governments favor this approach. But high-skilled, high-income families prefer a combination of private school for their children and less public spending (and lower taxes) to preserve their labor-market advantages. Boix found this was the strategy of right-wing governments in Europe.

A parallel literature on redistributive policy in the American states finds conditional partisan effects on welfare and (sometimes) education spending.¹ Yet this literature misses a crucial point. In the U.S., nearly half of school revenues are locally raised, while the rest are largely allocated by the state, which in theory is more or less at liberty to target the districts it wishes to reward. This potential for targeting introduces distributive politics into education finance, and implies that partisanship may work through the *distribution* of aid across school districts as well as (or in place of) aggregate spending. Indeed, since changing the level of school spending for everyone is a fairly inefficient way to reward constituents at a particular income level, parties may prefer to shift existing funding to their districts. But if school finance is not pure redistributive politics, neither is it distributive-politics-as-usual. Partisan distributions of aid are unlikely to conform to the standard model of distributive politics, the universal log-roll (Weingast, Shepsle, and Johnsen, 1981). Although legislators can all agree they want more spending for their own districts, their preferences are not identical, and excessive spending on all districts is unlikely—Democrats can agree on redistribution to low income districts, with Republicans united in opposition.

Neither the universal logroll nor the clash of class interests fully captures the nature of political conflict over state aid to school districts. Instead, the combination of distributive and

¹ Proposed conditions including a highly competitive party system (Dye, 1984) and distinct socioeconomic divisions between the parties (Brown, 1995). Smith (1997) finds unconditional partisan effects with a continuous measure of party control.

redistributive politics may produce a *partisan logroll*, in which parties use their powers within the legislature to produce majorities favoring partisan distributions of education finance.²

To characterize these partisan distributions, I consider the tradeoffs facing legislators themselves. Following Cox and McCubbins (1993), I assume members of legislatures are concerned with winning re-election, gaining a majority, and advancing to leadership positions. Therefore, a legislator must balance the policy demands of four groups:

- 1. his own constituents, who determine re-election;
- 2. the state's median district, which controls party majority status;
- 3. the legislative party's median member, who controls election to the leadership; and
- 4. the affluent (in all districts), whose campaign contributions are needed for re-election.

This configuration of interests suggests legislators are torn by tradeoffs. To maintain a majority, Democrats, for example, must do their best to keep a lid on total spending while giving as much as possible to the median voter in the state. Republican counteroffers to the middle enforce this constraint. At the same time, internal party politics favor the party's core constituents around, say, the second and third deciles of the income distribution.³ Members with leadership aspirations must cater to the core's demands, and members in the core are likely to survive through more elections and accumulate more power within the chamber. To find funds for core constituents and swing

_

² My classification of education spending differs from other work, including Peterson (1995), who classifies education spending as neither distribution or redistribution but economic development policy. As an investment in human capital, educational policy no doubt furthers development, but Peterson's contention that development policy will remain above politics due to cities' and states' need to attract firms and citizens does not apply to school spending, which retains the potential to develop human capital differently for different districts and classes.

³ It is hard to know exactly where the pivotal party member lies. One might suppose that the pivotal Democrat would represent a district around the 25th percentile of income, with the pivotal Republican around the 75th percentile. But to the extent that longevity brings legislative perquisites (a higher probability of committee chairmanship, party leadership, or simply accumulated favors from other members) members from 'safe' seats—for example, those districts farthest from the median income—may gain disproportionate power in the party, pulling the effective party median further from the median voter.

districts, Democrats will rationally spend less on school districts with incomes above the median. Likewise, the party as a whole may be tempted to shortchange the very bottom of the income distribution, for Democrats only need offer these voters more than Republicans do. But legislators from poor districts fight this impulse: they need to bring home benefits to stay in office and are loathe to trade their own jobs for majority status. Because their seats are the safest in the party, they fear only challengers in the primaries, not Republican candidates in November. The funding of the lowest districts thus depends on the leverage of their legislators. Only the jostling of interests within the institutions of party and legislature will resolve the Democrats' allocation of funds—whether it is concentrated on the electoral median, on the party's pivotal voter, or evenly spread across the party.

The tradeoffs facing the right are largely similar. Republicans skimp on poor districts in favor of affluent districts, targeting especially the party median and swing voters. Nor can Republicans afford to neglect the richest voters, whose financial resources are crucial for electoral victory. The Republicans may face less tension between allocation for their extreme members and middle income districts than do Democratic regimes, but overall their dilemmas mirror the Democrats'.

So far, I have only considered economic coalitions. But in the US, race predicts political allegiance as strongly as income. Blacks are far more likely to cast their ballots for Democrats, holding income constant. If Black voters are truly at the core of the Democratic constituency, one should see higher spending on black districts when Democrats are in office, even controlling for income. But it is also conceivable that Democrats will skimp on spending for predominantly black school districts in the same way one expects them to marginalize the very poorest districts, if they can afford to risk lower black turnout. *A priori*, the first hypothesis seems more likely. A white

district in the second decile will still vote Democratic if spending on the first decile is curtailed.⁴ But spending by race cannot be fine-tuned—if Democrats gain a reputation for shortchanging black districts, they run the risk that blacks in all deciles will stay home on election day. Republicans, on the other hand, have little incentive to spend scarce education resources on black districts. Such a strategy is unlikely to convert black voters to the Republican cause, while spending extra educational resources on the median district instead may deliver a Republican majority. Finally, partisan differences on spending for Latinos should be smaller, since the Democrats' hold on Latino voters is less secure.

I have argued that state legislatures have wide discretion over state aid distribution. While in theory, aid allocations are constrained by majority rule alone; in practice, most states have adopted complex financing schemes, often with the goal of equalizing school expenditures (NCES, 1993). One expects these laws make it harder for individual legislators to craft aid levels to suit their whims. If the rules established by school finance legislation are truly binding, they might suppress the partisan logic proposed here. On the other hand, the complexity of school finance laws may only conceal legislators' efforts to win exemptions, small formula changes, or more favorable application of existing formulae to their own districts. If so, the partisan logic might still hold by determining which legislators' tinkering survives on the floor or gets taken seriously by education bureaucrats. In any event, if partisan patterns appear in state aid to schools, explicit school finance plans have failed to squeeze the politics out of education funding. Thus, while further research should consider how various institutions mediate partisan demands, I address the more basic question of whether a partisan logic of school funding operates at all.

⁴ The Democrats might even gain votes overall, since turnout and income are strongly correlated, so that spending in the second decile offers more bang-per-education-buck.

Policy Outcomes

My argument focuses on the politics of *relative* education spending. Though parties might differ on the best aggregate education expenditure, comparing total education dollars across states and years raises seemingly intractable measurement problems. For example, in 1993 every school district in New York spent more than every school district in Mississippi per pupil. It is implausible that the educational resources of the best-endowed district in Mississippi really lag behind New York's most neglected district; rather, the costs of providing the same education are likely lower in Mississippi. From 1965 to 1990, consumer price index-adjusted per pupil school spending in the US more than doubled (Hanushek, 1996). Yet the best available estimates are that the actual provision of school resources increased only 30 percent per child, reflecting the slower rate of productivity growth in educational services (one teacher can educate no more children today than in 1965) (Rothstein and Miles, 1995). Unfortunately, neither an appropriate inflation index for educational services for the period studied (the mid-1990s) nor an appropriate set of inter-district cost-of-living adjustments is available. Without adjustment, any comparison of absolute education spending is likely to drown in measurement error.

These are precisely the sorts of difficulties that have made research on the effects of education spending so contentious. Not long ago, the surprising proposition that school spending mattered little was conventional wisdom. In an influential series of papers, Hanushek (1989, 1996) compiled the results of hundreds of studies to reveal inconsistent effects of educational resources on student performance. Yet recent work suggests that more money does help children learn, or that it is at least a necessary condition for successful reform. Many studies of educational resources in Hanushek's review found positive effects but failed to reject the null hypothesis because of low statistical power. As Greenwald, Hedges, and Laine (1996a,b) point out, Hanushek's method of counting studies as significant or non-significant is therefore biased against finding effects of

spending; according to their meta-analysis, most independent studies found positive (and, in combination, significant) effects of school resources on outcomes. Overall, Greenwald *et al* found strong and consistent effects of increased per pupil expenditure: the median effect of an extra 500 dollars per pupil was a one-sixth of a standard deviation increase in student performance.

There is also persuasive evidence that *relative* spending matters. In a study of Texas schools, Ferguson (1991) found that having better teachers significantly raised school performance, but that the best teachers tended to leave for neighboring districts when offered higher pay. Since for any state or metropolitan area, the districts with the most money per student should be able to lure the best teachers in the area, we should be concerned about partisan patterns in relative educational spending regardless of the effects of partisanship on absolute spending, or of absolute spending on educational success.

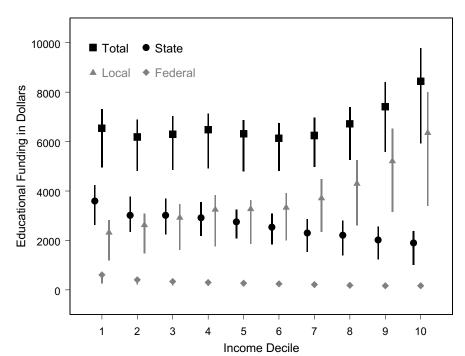


Figure 1: The sources of educational revenue

Per pupil means and inter-quartile ranges for all school districts, 1992-1997, in unadjusted dollars.

Data

On average, states and localities split the burden of school finance evenly, each paying 47 percent. Federal funds make up but six percent of school revenues, and differences in federal aid do not figure significantly in determining total revenue for any income level. In most cases, districts with low-income residents depend on state aid for the bulk of their resources, while affluent districts pay most of their own way (Figure 1). Among high income school districts, most of the variation in total revenue owes to differences in local revenue. Low income districts have fewer choices: their property tax rates tend to be the highest, but they can only squeeze so much from smaller tax bases. (Kozol, 1991). Whether a low income district can afford the same quality of education middle class children receive depends largely on how much state aid the district gets.

I analyze time-series cross-section data on state educational aid for all school districts in the United States from 1992 to 1997. Although data are available for all 50 states, only states where political parties have control over the distribution of educational funds are relevant. Three categories of states are thus excluded: those with non-partisan politics (Nebraska), centralized school finance (Hawaii), or court-ordered school finance equalization (ten states). To explain the politics of school finance in the remaining 38 states, I employ the following variables:

Dependent Variable

State Spending Ratio: I use Census of Governments revenue and enrollment figures for each school district over the years 1992-1997 to calculate a measure of relative education spending, which I call the 'state spending ratio' (SSR). This is the ratio of a given district's per pupil state funding to the mean per pupil state funding for the state. Formally, for the *i*th district in state s and year t, the state spending ratio is:

$$SSR_{it} = \frac{Aid_{it}/Enroll_{it}}{\sum_{\forall i \in S} Aid_{it} / \sum_{\forall i \in S} Enroll_{it}}$$
(1)

where Aid_{it} is the total state aid to district i and $Enroll_{it}$ is the district's enrollment, both in year t. Measuring spending relative to the mean student facilitates comparison of state aid distributions across states and time periods even though dollars spent on education are not directly comparable.⁵

Explanatory Variables

Income measures: Using racial and economic data on all school districts from the 1990 Census School District Databook, I grouped districts by state, weighted them by population, and sorted them into deciles by residents' mean income to create ten binary variables, D_1 , D_2 ,... D_{10} . I interact these income variables with dummies for *Republican* or *Divided* political control of state government to measure the partisan allocation of aid to different parts of the income distribution. Because the southern branch of the Democratic Party has historically drawn on a different constituency from the national party (more inclusive of high earners and less inclusive of blacks), I also interact the party/income variables with a dummy for the *Southern* states.

Racial and ethnic variables: To detect party preferences for spending on racial and ethnic groups, I include the percentage of *Black* and *Latino* students in each school district in the regression along

_

⁵ Because districts vary in size, the average state spending ratio of all districts in a state need not be 1; for example, it was 1.07 in 1997. While the average student received \$3,255 in state aid that year, the average school district received \$3,469 per student from the state.

⁶ This interactive specification allows the varied impact of partisanship across the income distribution to emerge from the data, rather than imposing an arbitrary functional form on this relationship.

⁷ I coded states as Republican, Democratic, or Divided for each year using the *Book of the States* (various years). For a party to be considered in control of the state, it must hold the governorship and a majority in at least one chamber of the legislature; otherwise, the government is considered divided. I tested models incorporating further distinctions between full and partial control of the legislature, but the effects of partial and full control were essentially the same.

with interactions of each with the partisan variables.⁸ I expect blacks to be rewarded and encouraged to vote as core constituents of the Democratic constituency, except in the South. The absence of blacks from the historic Southern Democrat coalition suggests that regardless of the party in office, blacks may be marginalized in the South, thus interactions with a dummy for Southern states were added to the model.

Methods

I estimate an interactive model of the state spending ratio of the *i*th district in the *t*th year and *j*th income decile by weighted least squares. Weighting by enrollment is appropriate (and standard practice) because per pupil aid figures are averaged over districts, so the variance in per pupil spending across districts is negatively correlated with district size. Put another way, larger districts offer more information on the underlying spending patterns, while small district figures contain more noise. As funding for most government programs undergoes only incremental change, I include two lags of the dependent variable in the model:

$$\begin{split} &SSR_{it} = \\ &\sum_{j=1}^{10} \left(\alpha_{j} + \beta_{j} Repub_{i,t-1} + \gamma_{j} Divided_{i,t-1} + \chi_{j} South_{i} + \eta_{j} South_{i} \times Repub_{i,t-1} + \lambda_{j} South_{i} \times Divided_{i,t-1}\right) D_{ji} \\ &+ \phi_{1} SSR_{i,t-1} + \phi_{2} SSR_{i,t-2} + \phi_{3} Black_{i} + \phi_{4} Latino_{i} + \phi_{5} Black_{i} \times Repub_{i,t-1} \\ &+ \phi_{6} Black_{i} \times Divided_{i,t-1} + \phi_{7} Latino_{i} \times Repub_{i,t-1} + \phi_{8} Latino_{i} \times Divided_{i,t-1} \\ &+ \phi_{9} Black_{i} \times South_{i} + \phi_{10} Black_{i} \times South_{i} \times Repub_{i,t-1} + \phi_{11} Black_{i} \times South_{i} \times Divided_{i,t-1} + \varepsilon_{it} \end{split}$$

⁸ Enrollment and racial data cover all students in the school district, rather than just those enrolled in public schools. Politicians cannot ignore families using private schools, since they might choose to send their children to public schools if state aid rose. We might control for private school enrollment for several reasons (attendance may be slow to respond to funding incentives, or it may reflect local private school quality). However, the percentage of students in private schools was not significant when included in the model, nor were its interactions with other characteristics.

Even after excluding the ten states with court-ordered school finance equalization, 39,733 observations covering 11,073 unique school districts remain, allowing estimation of this highly interactive model with great precision (half of the estimated parameters are significant at the .01 level). The estimates (presented in an appendix) conform closely to expectations, with Republicans favoring the rich, and Democrats spending relatively more on the poor and blacks.⁹

Yet visual inspection of regression results leave most substantive questions unanswered, especially for complex interactive models. For any hypothetical school district of interest, a half dozen interactions mediate the impact of income, race, and party. To discern the net effect of these interactions for meaningful examples, a reader would require detailed knowledge of the distributions of the explanatory variables and a hand-calculator. Moreover, it is hard to tell at a glance when interactive effects are 'significant' because many standard errors are involved. Fortunately, simulation techniques reveal the effects of partisan government for any hypothetical school district without requiring any further estimation (King, Tomz, and Wittenberg 2000). For example, I determine the net effect of partisanship on the average student at different points in the income distribution, and establish a confidence interval for that effect. I repeat the exercise for the average student of each racial and ethnic group within each income decile, bringing the presentation of results as close as possible to the experience of actual students.

⁹ Another approach considers only the relative changes in spending caused by parties, rather than relative levels of spending. For example, one could calculate the growth rate of each districts' per pupil state aid, and subtract the average growth rate of per pupil state aid statewide. This can then be regressed on the explanatory variables in equation 2. The results are qualitatively the same (especially with respect to racial effects, but also the contours of partisan income bias), though the coefficients are not always as precisely estimated. However, this approach suffers several disadvantages. First, measuring percent changes gives excessive leverage to rich districts with low aid *ex ante*, while substantial changes in poor districts with high per pupil are given too little weight. It is also impossible to make inferences about the distribution of the state aid budget using relative growth rates. Overall, then, this model discards much useful information in the levels of state aid, and I prefer the specification reported in the text.

¹⁰ As with any linear normal model, one could directly calculate fitted values and standard errors without simulation; however, simulation tends to be easier to implement where iterations of the model are required, and can easily produce any desired confidence interval.

Since the data are quarterly time series, the estimated coefficients convey per year effects. But the cumulative effects of institutional change over longer periods of time are of greater interest, since parties tend to hold power—and implement their preferred policies—over a period of years. Fortunately, we can directly simulate first differences for any period we like. To calculate the effect of a change in the governing party in period 1 that persists through period T, we draw m sets of estimated coefficients from the multivariate normal distribution and calculate fitted values for the first period using appropriate values of the independent variables. Then, using the same set of simulated coefficients, we repeat the process by calculating the state spending ratio for each period up to T, using the previous two periods' simulated SSR as lags, until we reach the period of interest. To obtain the first difference, we subtract the simulated state spending ratios for period 0, when the old institutions held sway.

Thus, we need to make some assumption about the lagged values of the dependent variable before period 0 (lags of later periods are simulated from the model). One reasonable approach is to set these initial lags at the level to which the state spending ratio would converge if the institutions of period 0 remained in place indefinitely.¹¹ Since the present model is a second-order difference equation with lag coefficients $\phi_1 + \phi_2 < 1$, the following defines the convergent state spending ratio under fixed values of the independent variables, \mathbf{X}_i ,

For parties that cycle in and out of office over the years, this assumption is less than ideal. However, it does provide a useful baseline from which to consider alternative scenarios of partisan history. Readers interested in the effect of a change in partisanship where recent history includes both Democratic and Republican governments might suppose that the state spending ratio for a district in period 0 reflects some linear combination of the tendencies of each party, given the institutional setting: $SSR_0 = \theta SSR_{Dem} + (1-\theta)SSR_{Rep}$, given $0 \le \theta \le 1$. In calculating the simulated first difference for the tth period after Republican victory, I assume that $\theta = 1$, so call these results $\Delta_t SSR_t | \theta = \theta \Delta_t SSR_t | \theta = \theta \Delta_t SSR_t | \theta = 1$ for all θ . Thus if the initial allocation of state aid lies halfway between the Republican and Democratic tendencies at the start of a Republican administration, the appropriate first difference estimates are exactly half those shown in the figures.

$$S\hat{S}R_{it} \to \frac{\mathbf{X}_i \mathbf{\beta}}{1 - \phi_1 - \phi_2} \text{ as } t \to \infty.$$
 (3)

Beside being useful for first difference calculations, the expected value of the convergent SSR offers a convenient portrayal of the ultimate tendency of a particular party in government.

In the simulations that follow, I often calculate the change in the state spending ratio after four and twelve years of partisan government. To assess how much trust to place in these estimates, I rely on an appropriate goodness-of-fit test, which holds that about 90 percent of the actual data should fall within the simulated 90 percent confidence interval. To test the reliability of the four year first-difference, I use the estimated model to predict the state spending ratio for each district in 1997, using only the lagged spending from 1992-1993, district demographics, and the states' partisan history over 1993-1996 (i.e., the same iterative simulation technique I use to illustrate hypothetical scenarios). 89 percent of the (enrollment-weighted) data falls into the model's confidence interval. This suggests substantial confidence in the results, at least for predictions over four years. Longer predictions, like the twelve year first differences I report, should be treated with more caution, since the model is estimated with only four years of data. Still, these long-range forecasts pass a tough test—the prediction of each district's SSR for 1993 (which lie outside the sample used for estimation, since these data are initial lags) using only demographic data and the preceding twelve years of political history. 12 85 percent of the actual (out-of-sample, enrollment-weighted) data lies inside the model's confidence interval, suggesting that the model may apply fairly well to the 1980s as well as the 1990s.

 $^{^{12}}$ For each period but the first two, I use the model's own estimates of $SSR_{i,t-1}$ and $SSR_{i,t-2}$ as lagged values. However, I must specify the values of $SSR_{i,1980}$ and $SSR_{i,1979}$. To mirror the procedure for calculating first differences used in the simulations below, I have used the average tendencies of the parties then in power as calculated by (3) to substitute for the actual values of spending in 1979 and 1980. Thus the fit between actual and predicted spending is solely the result of the model, and not an artifact of policy inertia.

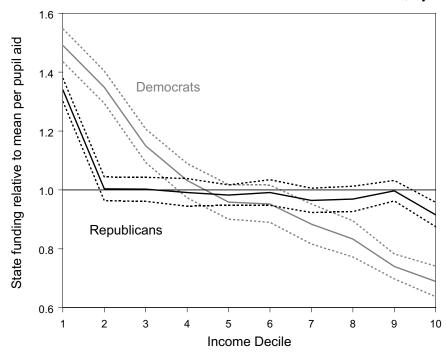


Figure 2: Partisan Tendencies in the Distribution of State Educational Aid, by Income

Solid lines graph the expected state funding to the average student in each income decile of a non-Southern state, and represent the distribution of funds to which a state would converge under unbroken partisan rule. Dashed lines are 90% confidence intervals, based on 10,000 simulations. Funding is measured relative to the mean per pupil allocation for the state (i.e., 1.2 on the vertical axis implies 1.2 times the average per pupil state aid for the state).

Results

Parties and Income

I begin by simulating the effect of partisanship on the state aid received by the average student in each decile for a non-Southern state.¹³ The results not only confirm broad expectations about redistribution by class-based parties, but also reveal finer details of within party-distribution. Although the parties give about the same support to the middle third of the income distribution, they seek very different levels of state aid elsewhere in the distribution (Figure 2). Democrats tend towards relatively high spending for their constituents in the bottom third of the distribution, with

¹³ Average here implies that the explanatory variables (in particular, percentage of black and Latino students) are held at their enrollment-weighted averages for each decile for states of the appropriate type (Southern/non-Southern).

the largest difference between the parties falling in the second decile. The Democrats also limit aid to the top third of districts, a combination that moves total funding per pupil closer to a level playing field. Republicans' tendencies in state aid allocation are largely regressive—middle class districts (which already benefit from large local tax bases) get as much aid as working class districts, with the sole exception of the very poorest. The biggest differences between the parties appear to correspond to the effective party medians, falling in the second and ninth deciles. Differences narrowed sharply at the very bottom, where voters lack an alternative to voting Democratic. This suggests Democrats did not show the same generosity to their poorest members as to their core members. Differences in the tenth decile were attenuated only slightly, as the financial resources of affluent voters gave them leverage their analogues in the first decile lack.

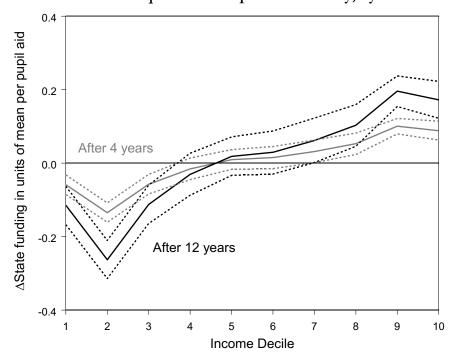


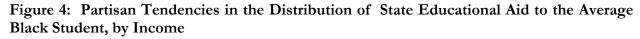
Figure 3: The Distributional Consequences of Republican Victory, by Income

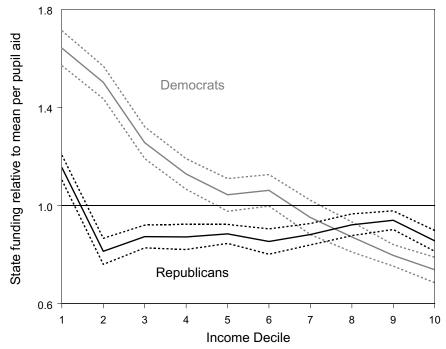
Solid lines show the change in expected state funding for the average student in each decile four years (in gray) and twelve years (in black) after Republicans take control of government in a non-Southern state with a Democratic pattern of state educational expenditure. The change is reported in units of the state aid given to the mean student in the state. Dashed lines are 90% confidence intervals, based on 10,000 simulations.

Notable differences between the parties appear even after a single four-year term (Figure 3). When a Republican government replaces a long-standing Democratic administration, the second poorest decile of school districts can expect to fall 14 percent relative to the mean per pupil aid within 4 years, and 26 percent after three terms. The ninth decile receives commensurate gains relative to the mean—9 percent after 4 years, and 20 percent after three terms. The case of Democratic takeover after long Republican control leads, of course, to the reverse of the expectations shown in Figure 3—in that case, the poor stand to gain as much as 14 percent after four years, while the rich stand to lose as much as 9 percent of the mean per pupil allocation in just four years. Overall, a Democratic administration would seem to give working class school districts a better chance to attract good teachers and lower class sizes, while a Republican administration would erode the ability of poorer districts to compete in the teaching market by augmenting the financial advantage of affluent neighborhoods.

Parties and Race

The best way to understand how parties allocate state aid by race is to ask what the model predicts will happen to the average student of a given race on each step of the economic ladder. In turn, the key to interpreting the regression results is recognizing that segregation intensifies racial effects for most black and Latino students. Outside the Southern states, the average student attended a school district where only one child in ten was black, and only one in fourteen was Latino. Yet two of every five students in the average black student's school were black, and more than one in four students in the average Latino's school was Latino. In the South, blacks and Latinos make up a larger proportion of the average student's peers, but the experience of the average black or Latino student is still segregated. Segregation also tends to be higher in poorer districts, implying that racial patterns in school funding are further magnified for the disadvantaged.



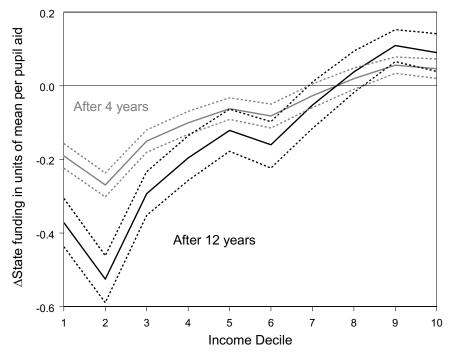


Solid lines graph the expected state funding to the district of the average black student in each income decile in a non-Southern state, and represent the distribution of funds to which a state would converge under unbroken partisan rule. Dashed lines are 90% confidence intervals, based on 10,000 simulations. Funding is measured relative to the mean per pupil allocation for the state.

Left to their own devices, Democrats and Republicans tend towards drastically different allocations of aid to the average black student (Figure 4). The gap between Democratic and Republican funding of the average black student is a yawning chasm reaching up to the 70th percentile. In the limit, the difference between the parties' spending on the second decile, containing 17 percent of all black students, is a whopping 69 percent of the mean per pupil state aid. As a result, blacks in the second decile can expect substantially less aid from Republicans than whites in the top ten percent of the income distribution. Even as high as the 60th percentile, the Democrats offer the average black student 16 percent more of the average per pupil aid allotment than Republicans. Although I have spoken so far of effects 'in the limit', the short-run effects of Republican victory are hardly better for black students (Figure 5). The average black student in the

bottom 30 percent of the income distribution stands to lose 22 percent of the mean state aid level in the four years after Republican takeover, and losses mount most quickly for the second decile, where black students lose 27 percent of the mean SSR. Given the magnitude of this change, one suspects black students' fortunes decline in real as well as relative terms.

Figure 5: The Distributional Consequences of Republican Victory for the Average Black Student, by Income

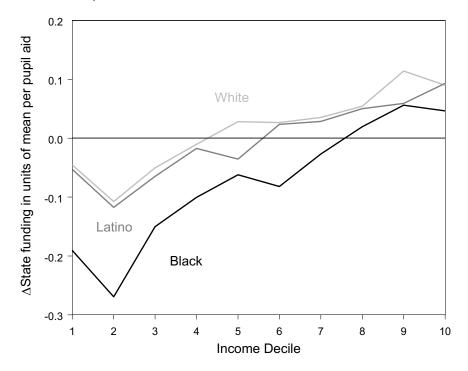


Solid lines show the change in expected state funding for the school district of the average black student in each decile four years (in gray) and twelve years (in black) after Republicans take control of government in a non-Southern state with a Democratic pattern of state educational expenditure. The change is reported in units of the state aid given to the mean student in the state. Dashed lines are 90% confidence intervals, based on 10,000 simulations.

Why do Republican governments spend so much less on the education of black children? Rather than attribute this to racism, consider the incentives facing the party. Blacks vote so solidly Democratic (according to exit polls, 86 percent voted for Clinton in 1996, compared to 45 percent of whites and 75 percent of Latinos [Voter New Service, 1997]) that few Republican officials can seriously hope to win a majority by attracting black voters. Even if Republicans made a genuine and

costly change in their policy proposals to favor black interests, few politicians could afford to wait for these promises to become credible. If Republicans target their spending to improve their chance of winning elections, spending on blacks is usually the least effective means of doing so: it is cheaper to win white or Latino votes with a bit more education spending for the poor (at least versus the black poor) and tax breaks or education aid for the rich. Thus a partisan bias against education spending for black districts could originate in the coolly rational calculations of partisans whose coalition lacks black members.

Figure 6: The Distributional Consequences of Republican Victory for the Average Student, by Income and Ethnicity, Four Years after the Election



The change in expected state funding for the school district of the average Black, Latino, or White student in each decile four years after Republicans took over in a non-Southern state with a Democratic pattern of state educational expenditure. Change is measured in units of the state aid given to the mean student in the state. Confidence intervals omitted for clarity.

I apply the same methodology to simulate the effect of partisanship on the average Latino student in each decile that I used for the average black student. At first glance, the regression results in the Appendix suggest that Latinos might benefit from Republican rule, all else equal. But

Republican governments' tendency to cut spending on black students hurts Latinos as well, as the average non-Southern Latino student attends school with 60 percent more blacks than the average student. Overall, the simulations show that Republican victory is slightly less salutary for Latinos than whites, but not as disastrous as for black students. Indeed, there is no difference between the parties in the eyes of a Latino student at the middle of the income spectrum. Latino students in the bottom half of the income distribution benefit from Democratic rule; those in the top half from Republican regimes. After four years of Republican rule, a Latino in the second decile stands to lose funding equal to 12 percent of the mean state aid, while Latinos in the top decile stand to gain nine percent (Figure 6). By the end of three four-year terms, these effects double in magnitude.

Comparing partisan treatment of racial and ethnic groups (Figure 6) reveals three things. First, across most of the income distribution, Republican governments instigate similar changes in state aid to the average white and average Latino student. But the gap between their treatment of black pupils and all other students is wide, especially for those most in need of state aid. Second, at the fifth and ninth deciles, Republican victory offers whites larger benefits than Latinos (in both cases the difference is statistically significant). Perhaps Republicans target extra benefits at whites in these positions to attract the most susceptible swing voters and reward the core members of their coalition. Finally, the income cut-point above which students benefit from Republican rule varies by race: for whites, it is around the 40th percentile; for Hispanics, the 50th, but for blacks, all the way up at the 70th percentile. Clearly, partisan coalitions on educational spending are shaped as much by race as income.

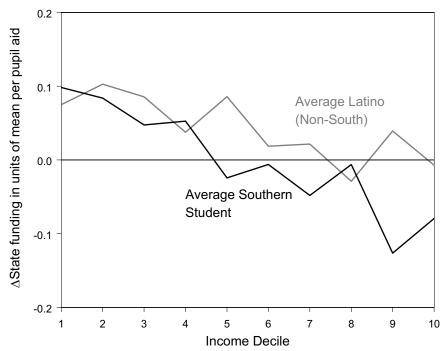
The South and Divided Government

Partisan differences over the allotment of state aid by income are muted in the South.

Compared to the national parties, Southern Democrats are significantly less generous to low income districts, while Southern Republicans are more redistributive. The small number of Republican

governments in the South makes it impossible to distinguish their spending across the income spectrum from that of Southern Democrats.

Figure 7: Divided Government helps all low-income students in the South, and low to middle income Latinos nation-wide



The change in expected state funding for the school district of the average Southern student and the average non-Southern Latino student in each decile four years after the start of divided government in a state with a Democratic pattern of state educational expenditure. Change is measured in units of the state aid given to the mean student in the state. Confidence intervals omitted for clarity. All differences for the first through fourth deciles are significant at the 0.1 level.

The most intriguing finding for the South regards divided government. In the South's long transition from Democratic stronghold to Republican-leaning territory, divided government indicates the political arena is contested at last. And as Key (1949, 307) first hypothesized, party competition may be better for 'have-nots' than a one-party system. In this case, as Southern Democrats lose their grip on middle class white voters, they must build support among blacks, Latinos, and low-income voters to survive. Republicans in divided regimes may resist efforts to shift aid to poor, black, or Latino districts, but not too forcefully, lest they mobilize a new Democratic coalition. Thus it is no surprise that these districts did much better in divided southern regimes than

under Southern Democrats or Republicans. Simulations reveal that the advent of divided government in the South adds as much as 10 percent of the mean SSR to the poorest school districts in just four years (Figure 7). The effects of divided government in the South were virtually identical for the average white, black, and Latino student in each decile.¹⁴

A similar logic helped Latinos benefit from divided government nationwide. Where a Republican regime loses unified control of the government, fully 80 percent of Latino students (including all Latino students below the 70th percentile of income) can expect their state aid to rise relative to the mean aid, and forty percent can expect at least an eight percent increase within the first four years of divided government (Figure 7). A reasonable explanation is that divided government indicates a highly contested political arena in which the parties identify Latinos as potential swing voters, and seek Latino votes clear across the income spectrum.

Discussion

Parties and Income

The evidence presented on parties' allocation of aid by income supports Cox and McCubbins' view that parties structure legislative decisions to resolve tradeoffs among the median voters of each district supporting the party, the overall party median, and the median state legislator. Yet there is an alternate interpretation of the evidence. Welfare state scholars contrast universal programs, which offer comprehensive public social services to all citizens, and means-tested programs, which target most benefits towards the poor (Esping-Anderson, 1990). Reconsidering Figure 2 in this light, it is striking that Democrats' offer of state aid declines smoothly in income, while Republicans' tendency is mostly flat over the top 90 percent of the income distribution, with a

¹⁴ Indirectly, this supports the notion that discrimination against black students in state aid is a rational choice rather than a racist tactic. When the parties need black votes to win close elections, black school districts are courted, not excluded.

spike at the bottom. In effect, the Democratic strategy offsets local revenues to produce schools of equal resources at all incomes (achieving 'targeting within universalism' [Skocpol, 1991]), while the Republican strategy appears to be a strict means test which is nevertheless stingier to the poor than Democratic universalism. I do not consider this view at odds with the legislative logic offered above. Rather, I find it notable that in the context of decentralized public education, Democrats have legislative incentives to pursue a universal system of state educational aid, while Republicans' incentives favor a severe means-test on state aid.¹⁵

Returning to the party-incentives view, it is clear that the party's own districts were well served, while the overall median in the state could expect competitive treatment from both parties, but special treatment from neither. Yet policy innovations could change the way parties compete for the median district. Rather than matching the left dollar for dollar in public school aid, the right may soon offer parents vouchers to whisk their children away from failing schools. The findings here point to two potential dangers: First, if black or poor students prove less able to escape to public schools, they may be subject to stronger partisan shifts in spending, since Republicans will have even less incentive to spend on public schools as their constituents go private. Second, programs that offer different subsidies to different children (based, for example, on race or poverty) may be even more vulnerable to partisan meddling given the precision with which a change in voucher amounts could be targeted to either party's constituents.

Parties and Race

Partisan targeting of school aid by race may influence the behavior of parents and schools in several ways, all of which deserve further research. If lower funding (during Republican governments) or less stable funding (over alternating governments) degrades the performance of

¹⁵ To the extent that universalist and means-tested spending patterns are reinforced by left and right parties, respectively, the findings here offer indirect evidence for a correspondence between parties and 'welfare state types', as Wren (1999) has argued for the European case.

predominantly black districts, this disadvantage would be capitalized into home prices (a la Vigdor [1998]). Moreover, lower school performance would discourage whites from living in the typical black school district, whether they understand the political logic of aid or not. They might add insult to injury by directly attributing school failure to black students. Either way, partisan spending patterns may reinforce the desire for racial segregation across school districts—a desire that has historically enjoyed a dominant role in the drawing of school district borders (Alesina, Baqir, and Hoxby, 2000). Likewise, discrimination between districts on the basis of race may invite further bias within districts and even schools, since school boards will be eager to retain white residents, even at the cost of preferential funding for mostly white schools or programs within the district.

Conclusion: Can the promise of equal opportunity be kept?

Few question the right of each child to an equal opportunity in society or an equal chance to learn; otherwise, it would be hard to justify the unequal outcomes society provides. But looking past the rhetoric of equality, we see that the competition for state educational aid is really a battle on two fronts: first between parties over which classes and ethnic groups will receive more aid, and then within parties over which members of those groups will receive the most. Rather than being ingrained in American political institutions, it would seem equal opportunity can only be achieved when a coalition of the less privileged already has control of the government.

On a cursory examination, it would be easy to say that partisan differences on education policy arise from philosophical differences between the parties, or from simple racial discrimination. However, the evidence suggests that partisan outcomes in school finance result from the composition of party coalitions. The structure of these coalitions filters through American political institutions, assigning advantages or disadvantages to different groups within parties. The parties may adopt beliefs about the appropriate structure of the welfare state (universalist or means-tested) to better justify the policies their coalitions produce. But even if the ideological distinctions between

the parties were blurred, state aid would still exhibit strong partisan biases on income and race so long as party *coalitions* remained distinct.

Accepting this, one might suppose that per pupil funding might become more stable (if not much more egalitarian) if the votes of blacks, Latinos, and the poor were contested by the parties. Perhaps, the arguments goes, it would be better for blacks overall if a significant number of blacks voted Republican. However, there are still real differences between the parties on redistributive issues where benefits are not targeted by district. So long as the parties represent different economic interests, blacks will lose more overall from the victory of the right than they can make up in school funding. In the end, I suspect that the unequal distribution of school resources is an inherent feature of decentralized school finance, which might be ameliorated only through centralized school finance, as it exists in most other affluent nations. So long as parties can treat school districts differently, children's educational opportunities will wax and wane with the cycles of party politics.

References

- Alesina, Alberto, Reza Baqir, and Caroline Hoxby. 2000. 'Political Jurisdictions in Heterogenous Communities.' Harvard University.
- American Education Finance Association. 1992. *Public School Finance Programs of the United States and Canada*. Blacksburg, VA.
- de Bartolome, Charles. 'What Determines State Aid to School Districts? A Positive Model of Foundation Aid as Redistribution.' *Journal of Policy Analysis and Management.* 16.1: 32-47.
- Benabou, Roland. 1996. 'Heterogeneity, Stratification, and Growth: Macroeconomic Implications of Community Structure and School Finance.' *American Economic Review* 86:3. June. 584-609.
- Boix, Carles. 1998. Political Parties, Growth and Equality. Cambridge: Cambridge University Press.
- Brown, Robert D. 1995. 'Party Cleavages and Welfare Effort in the American States.' *American Political Science Review* 89.1. March. 23-33.
- Census of Governments. 1992-1997. *Public Elementary-Secondary Education Finance Data*. Electronic resources from the United States Census Bureau website (www.census.gov/govs/www/school.html).
- Council of State Governments. 1980-1996. *Book of the States*. Lexington, KY: The Council of State Governments.
- Cox, Gary, and Mathew McCubbins. 1993. Legislative Leviathan: Party Government in the House. Berkeley: University of California Press.
- Downs, Thomas A., and David N. Figlio. 1999. 'Economic Inequality and the Provision of Schooling.' *Economic Policy Review—Federal Reserve Bank of New York* 5.3 (Sept.) 99-110.
- Dye, Thomas R. 1984. 'Party and Policy in the States.' Journal of Politics 46. 1097-1116.
- Esping-Anderson, Gøsta. 1990. The Three Worlds of Welfare Capitalism. Princeton: University Press.
- Ferguson, Ronald. 1991. 'Paying for Public Education: New Evidence on How and Why Money Matters.' *Harvard Journal on Legislation*. 28.1. Summer.
- Goldschmidt, Pete, and Therese S. Eyermann. 1999. 'International Educational Performance of the United States: Is There a Problem Money Can Fix?' *Comparative Education* 35.1: 27-43.
- Greenwald, Rob, Larry V. Hedges and Richard D. Laine. 1996a. 'The Effect of School Resources on Student Achievement.' Review of Educational Research. 66.3: 361-396.
- —. 1996b. 'Interpreting Research on School Resources and Student Achievement: A Rejoinder to Hanushek.' Review of Educational Research. 66.3: 411-416.

- Grissmer, David, Ann Flanagan, and Stephanie Williamson. 1998. 'Why Did the Black-White Score Gap Narrow in the 1970s and 1980s?' *The Black-White Test Score Gap*. Ed. Christopher Jencks and Meredith Phillips. Washington, D.C.: Brookings Institution. 182-226.
- Hanushek, E. 1989. 'The Impact of Differential Expenditures on School Performance.' Educational Researcher 18.4: 45-51.
- Hanushek, E. 1996. 'A More Complete Picture of School Resource Policies.' Review of Educational Research 66: 397-410.
- Hoxby, Caroline. 1998. 'All School Finance Equalization Are Not Created Equal.' NBER Working Paper 6792. November.
- —. 1995. 'Is There an Equity-Efficiency Trade-Off in School Finance? Tiebout and a Theory of the Local Public Goods Producer.' NBER Working Paper 5265. September.
- Key, V. O, Jr. 1949. Southern Politics in State and Nation. New York: Random House.
- Kozol, Jonathan. 1991. Savage Inequalities: Children in America's Schools. New York: Crown Publishers.
- National Center for Education Statistics. 1993. 1990 Census School District Special Tabulation: Summary File Set I. November. Washington, D.C.: U.S. Department of Education.
- Peterson, Paul E. 1995. The Price of Federalism. Washington, D.C.: Brookings Institution.
- Poterba, James M. 1997. 'Demographic Structure and the Political Economy of Public Education.' Journal of Policy Analysis and Management. 16.1: 48-66.
- Rothstein, Richard, and K. H. Miles. 1995. Where's the Money Gone? *Changes in the Level and Composition of Education Spending.* Washington, D.C.: Economic Policy Institute.
- Skocpol, Theda. 1991. 'Targeting within Universalism: Politically Viable Policies to Combat Poverty in the United States.' *The Urban Underclass*. Ed. Christopher Jencks and Paul Peterson. Washington, D.C.: Brookings Institution.
- Smith, Mark A. 1997. 'The Nature of Party Governance: Connecting Conceptualization and Measurement.' American Journal of Political Science 41.3. July. 1042-1056
- Vigdor, Jacob. 1998. 'The Economic Effects of Reducing Local Tax Burdens.' Unpublished. Harvard University.
- Voter News Service. 1997. Voter News Service General Election Exit Polls, 1996. [Computer file]. ICPSR version. New York, NY: Voter News Service [producer], 1996. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research [distributor], 1997.

- Weingast, Barry, Kenneth Shepsle, and Christopher Johnsen. 1981. 'The Political Economy of Benefits and Costs: A Neoclassical Approach to Distributive Politics.' *Journal of Political Economy* 89.4.
- Wren, Anne. 1999. 'The New Politics of Inequality: Distributional Decision-Making in Postindustrial Labor Markets' Presented at the European Political Economy Workshop, Cambridge, MA, November 5.

Append	ix: WLS estima	tion of relati	ve per pupil s	tate educatio	nal spending (S	SR), 1994-1997
		Interactions (Row Variable × Column Variable)				
	Uninteracted	Repub	Divided	South	South×Repub	South×Divideo
D1	0.201	-0.011	-0.019	-0.029	0.021	0.038
	(0.006)	(0.006)	(0.007)	(0.007)	(0.015)	(0.011)
D2	0.178	-0.030	-0.026	-0.024	0.046	0.047
	(0.006)	(0.006)	(0.007)	(0.006)	(0.015)	(0.010)
D3	0.155	-0.013	-0.008	-0.005	0.008	0.019
	(0.005)	(0.006)	(0.007)	(0.006)	(0.015)	(0.011)
D4	0.139	0.002	-0.007	0.007	0.000	0.019
	(0.006)	(0.006)	(0.008)	(0.007)	(0.014)	(0.011)
D5	0.123	0.022	-0.007	0.025	-0.025	-0.012
	(0.006)	(0.006)	(0.008)	(0.006)	(0.021)	(0.010)
D6	0.126	0.016	0.001	0.016	-0.008	-0.009
	(0.006)	(0.007)	(0.008)	(0.007)	(0.015)	(0.011)
D7	0.119	0.018	0.005	0.013	0.014	-0.028
	(0.006)	(0.007)	(0.008)	(0.007)	(0.017)	(0.011)
D8	0.113	0.023	0.001	0.007	-0.019	-0.011
	(0.006)	(0.006)	(0.008)	(0.007)	(0.016)	(0.011)
D9	0.095	0.051	0.009	0.046	-0.072	-0.060
	(0.004)	(0.005)	(0.007)	(0.006)	(0.019)	(0.010)
D10	0.093	0.035	0.017	0.023	-0.008	-0.050
	(0.005)	(0.006)	(0.006)	(0.006)	(0.012)	(0.009)
%Black	0.048	-0.108	0.039	-0.067	0.079	-0.030
	(0.008)	(0.010)	(0.020)	(0.011)	(0.022)	(0.023)
%Latino	-0.001	0.017	0.046			
	(0.006)	(0.012)	(0.010)			
SSR _{t-1}	0.650					
	(0.005)					
SSR _{t-2}	0.212					
	(0.004)					

Entries are weighted least squares coefficients with standard errors in parentheses. All columns are part of the same regression. The dependent variable is the state spending ratio, which measures per pupil spending in each school district relative to per pupil spending statewide (see text). School district enrollment used as weights. States with court ordered school finance equalization (10 states), nonpartisan legislatures (Nebraska), or centralized school finance (Hawaii) excluded. N = 39,733, s.e.r. = .12.