Electoral Institutions and Legislative Particularism

How do electoral institutions affect legislative behavior? Though a large body of theoretical scholarship posits a negative relationship between multimember districting and the provision of particularistic goods, empirical scholarship has found little evidence in support of this expectation. Using data on the provision of US post offices from 1876 to 1896, a period during which many states elected congressional representatives from at-large districts, and a differences-in-differences approach, I find that counties represented by at-large representatives received approximately 8% fewer post offices. The results have important implications for studying how electoral institutions affect incentives for legislative behavior.

How do elected officials represent their constituencies? In designing the American system of government, the Founders paid close attention to how institutional structures would provide incentives for legislative behavior. For instance, in Federalist 52, Madison wrote that “frequent elections are unquestionably the only policy” by which members of the House of Representatives would “have an immediate dependence on, and an intimate sympathy with, the people.” A wide range of electoral institutions, including term limits (e.g., Bernhardt, Dubey, and Hughson 2004; Carey 1998), ballot formats (e.g., Engstrom 2012; Katz and Sala 1996), and party primaries (e.g., Aranson and Ordeshook 1972), affect the behavior of election-seeking legislators.

A significant body of scholarship argues that single-member districts (SMD) and multimember districts (MMD) offer dramatically different incentives for legislative behavior (Cox 1990; Dow 1998; Magar, Rosenblum, and Samuels 1998). Though legislators from both systems draw upon their personal reputations and their party’s reputations when seeking re-election, the relative emphasis varies across electoral institutions. Legislators elected from SMD are generally posited to have greater incentives to cultivate a personal vote because they must distinguish themselves from their competitors. In contrast, legislators elected under MMD are less individually identifiable apart from their
party and are motivated primarily to support their party’s program and collective reputation. The different incentive structures provided by SMD and MMD thus have important implications for how legislators represent their constituents. Consistent with these expectations, previous research has shown that legislators elected under MMD report reduced incentives to engage in constituency service (Heitshusen, Young, and Wood 2005; Lancaster and Patterson 1990), initiate less parochial legislation (Crisp and Desposato 2004; Kerevel 2015), are held less accountable for their behavior in office (Lancaster 1986), and engage in higher levels of corruption (e.g., Chang and Golden 2007; Kunicova and Rose-Ackerman 2005).

In this article, I build upon these literatures and other recent research on nineteenth-century distributive politics in the United States (e.g., Finocchiaro 2015; Rogowski 2016) to study how districting institutions affect the provision of particularistic goods. Though prior theoretical work predicts that SMD increases the provision of distributive goods relative to MMD (e.g., Ashworth and Bueno de Mesquita 2006; Cain, Ferejohn, and Fiorina 1984, 1987; Dixit and Londregan 1995), empirical scholarship has produced limited evidence in support of this expectation (e.g., Hirano 2006; Snyder and Ueda 2007). I use data on county-level post office locations to study the distribution of particularistic goods in the United States between 1876 and 1896, a period in which many states elected at-large congressional representatives. The districting institutions used in these states resembled electoral systems currently used in countries including Hungary, Germany, and New Zealand. Using a differences-in-differences approach, the data reveal that at-large districting significantly reduced the provision of post offices. On average, counties included in at-large districting schemes received approximately 8% fewer post offices. These results are robust across a wide range of alternative model specifications, subsets of observations, and characterizations of key variables. I further show that the negative effects of at-large representation were especially large in counties with low levels of electoral competition, which suggests an important interaction in how electoral institutions changed legislators’ incentives to target electorally valuable constituencies. The findings have important implications for how electoral incentives affect legislative behavior and inform debates over the use of alternative districting plans.

**Districting Institutions and Legislative Behavior**

Electoral incentives structure patterns of political representation and legislative behavior (Cain, Ferejohn, and Fiorina 1987; Mayhew
Motivated by the desire to win re-election, legislators seek to build personal reputations with their constituents, though the level of effort legislators invest in doing so depends on the electoral system. Chiefly, legislators will invest greater effort in developing personal reputations as the electoral system enables voters to distinguish one legislator from her competitors.

Research in comparative politics has long recognized that districting institutions affect legislators’ incentives to cultivate personal reputations (e.g., Carey and Shugart 1995; Cox 1990). Under SMD, legislators have geographically defined constituencies and have incentives to engage in behavior to secure support among constituents residing in that district (Carey and Shugart 1995; Lancaster 1986). In this situation, legislators can be distinguished from their colleagues and electoral opponents and thus focus on developing personal reputations. The incentives to cultivate support among the full geographic constituency decrease, however, in MMD systems, where voters are less able to distinguish the behavior of one legislator from others elected to serve the same constituency. Consequently, as Lancaster summarizes the literature in comparative politics, “the electoral accountability linkage is strongest in countries with single-member districts and weakest in those with at-large districts” (1986, 67). Thus, MMD provides smaller returns to legislators’ personal reputations because a legislator’s re-election prospects depend more on the party’s collective reputation, reducing the incentives for legislators to distinguish themselves from their copartisans. The decreased importance of personal reputations may explain why cross-national research finds that MMD is associated with higher levels of corruption due to weaker incentives for voters and opposition parties to monitor individual legislators’ behavior (Kunicova and Rose-Ackerman 2005).

**Incentives for Legislative Particularism**

Districting institutions have important implications for legislators’ incentives to engage in particularistic behavior. Single-member districts provide greater incentives for legislators to engage in constituency service because the provision of service enhances those legislators’ personal reputations (Cain, Ferejohn, and Fiorina 1984). Ashworth and Bueno de Mesquita (2006) formalize the relationship between districting institutions and the provision of particularistic goods. In their model, incumbent legislators devote effort to providing particularistic and collective goods, and the legislature creates national policy. Voters observe the level of constituency service provided to their district but not the
amount of particularistic goods produced by their incumbent legislator. Because voters in MMD do not know which of their legislators was responsible for the particularistic benefits they received, they do not know how to apportion credit across their legislative delegation. The ambiguity in attributing responsibility for particularistic outcomes thus generates free-riding incentives. In contrast, SMD enables voters to learn about their legislator’s ability to provide particularistic benefits, who then place greater weight on legislators’ individual characteristics. As a consequence, SMD provides greater incentives for legislators to invest in constituency service and results in the increased provision of distributive goods.5 This expectation is consistent with related research on the effect of bicameralism on distributive politics, where legislators secure fewer pork barrel projects in bicameral (rather than unicameral) settings because electoral credit must be shared with larger numbers of legislators (Chen 2010).

But despite well-developed theory on the relationship between electoral institutions and legislative behavior, empirical scholarship has provided mixed results in support of the theoretical expectations. On the one hand, evidence from legislator surveys and studies of legislators’ attempts to secure parochial goods is generally consistent with the hypothesis that MMD reduces the provision of particularistic goods. For instance, Lancaster and Patterson (1990) showed that legislators elected to the West German Bundestag under MMD (rather than SMD) reported reduced incentives to engage in constituency service, while Heitshusen, Young, and Wood (2005) report results from cross-national surveys showing that members of parliament from MMD in Australia, Canada, Ireland, New Zealand, and the United Kingdom reported placing less priority on constituency service than MPs under SMD. Similarly, legislators appear to place decreased priority on attempting to secure particularized benefits under MMD. Kerevel (2015) shows that Mexican legislators elected under SMD filed more budgetary amendments on behalf of their constituents than legislators elected under MMD and Crisp et al. (2004) demonstrate that legislators elected under SMD in Latin America initiated more bills with parochial emphases.6 However, these studies do not measure legislators’ success in securing these provisions.

On the other hand, scholarship that focuses on distributive outputs provides little evidence that MMD reduces the provision of parochial goods. In fact, the most comprehensive empirical studies to date that focus on distributive outcomes find that MMD is associated with increased particularism. For instance, Snyder and Ueda (2007) study the provision of state transfers to local governments in the United States
from 1968 to 1984 and find that local governments represented by multi-
member districts in the state legislature received increased transfers. Hirano (2006) leverages electoral reforms undertaken in Japan in 1925
and 1994 and finds that legislators elected under MMD had stronger
incentives to cultivate a geographically specific personal vote due to par-
ty competition and the single nontransferable vote system.7 The results
from these studies are inconsistent with theoretical accounts that stress
the free-riding incentives provided by MMD and instead raise the possi-
bility that other factors could lead to increased particularism under
MMD.

I test the hypothesis that MMD reduces the provision of distribu-
tive goods using an empirical strategy well-suited to identifying the
causal effect of switching between SMD and MMD. First, similar to Hir-
ano (2006), I study the provision of particularistic goods within a single
institutional context. Previous research on the effects of districting
compared legislative behavior across multiple countries (e.g., Crisp et al.
2004) or chambers of the same state or country (Adams 1996;
Richardson, Russell, and Cooper 2004), or has studied cross-sectional
differences in behavior among legislators in the same chamber but
elected through different districting rules (Kerevel 2015). While cross-
country comparisons enable researchers to study the system-level effects
of districting procedures, this approach could generate misleading results
if other features of the institutional environment are also correlated with
the behavioral outcome in question. By holding fixed the institutional
context, I can largely isolate the effect of districting institutions from oth-
er potential confounders. Second, within this fixed context, I leverage
temporal changes in the use of SMD versus MMD, which helps ame-
liorate the possibility that any observed effects are due to confounding
variables.

Data and Empirical Strategy

I test the hypothesis outlined above by studying the distribution
of post offices in the United States from 1876 to 1896.8 During this
period, federal policymaking was “usually of a distributive nature”
(McCormick 1986, 206) and “the federal government turned out lit-
tle but land disposal programs, shipping subsidies, tariffs, internal
improvements, and the like” (Lowi 1972, 301). Federal resources
were valuable currency for members of Congress, and disagreement
over the provision of these benefits inspired much debate, both with-
in Congress and between Congress and executive branch agencies.
For instance, according to McCormick, “[d]istributive decisions may
have been roughly what the American people wanted, but the details of such policies perpetually fueled conflict” (1979, 286). The conflict over the distribution of federal resources implies that members of Congress perceived benefits to securing them, and the provision of federal projects, such as roads, bridges, and post offices, enabled members of Congress to claim credit for their work on behalf of their constituents. The nineteenth-century post office was the most visible indicator of the American state in local communities (John 1995) and plays a prominent role in accounts of American political development near the turn of the twentieth century (Carpenter 2001; Kernell 2001; Kernell and McDonald 1999; Skowronek 1982).

Though the electoral environment during the late nineteenth century differed considerably from the contemporary era, legislators serving in this time period were highly motivated to secure distributive resources. Many of the necessary conditions for the electoral connection were in place by the late nineteenth century (Carson and Jenkins 2011); for instance, House careerism increased following Reconstruction (Kernell 1977; Stewart 1989), and the emergence of quality congressional challengers during this time period responded to the same strategic incentives as in the contemporary era (Carson and Roberts 2013). Reflecting on the nature of the electoral connection in the late nineteenth century, Bryce observed that “[a]n ambitious congressman is therefore forced to think day and night of his renomination,” and attempts to secure it with “grants from the Federal treasury for local purposes” (1995, 197).9

Post offices enabled members of Congress to satisfy demands from both their constituents and state and local party organizations. Constituents expressed interest in post offices and postal routes from the country’s beginning. As John documents, “to demonstrate the existence of popular support for the establishment of a new [postal] route, congressmen encouraged their constituents to prepare an official request in the form of a petition,” with “thousands of these petitions” (1995, 49–50) making their way to Congress. Post offices facilitated the maintenance of “familial and social bonds” (Mashaw 2010, 1443), allowed for the dissemination of information and commerce (John 1995), and helped forge relations between community members (Park 1923, 276). Constituent efforts to secure post offices were not lost on President Rutherford B. Hayes, who observed that “all the inhabitants of the country are directly and personally interested in having proper mail facilities, and naturally watch the post office very closely. This careful oversight on the part of the people has proved a constant stimulus to improvement” (1880, 24).
Though the electoral relationship between constituents and legislators may have been somewhat attenuated due to the party ballot used for most of the nineteenth century, state and local party organizations provided clear incentives for legislators to secure post offices. The post office was the most important source of patronage in the late nineteenth century, and securing post office locations enabled legislators to support their party’s local organizational efforts (Schiller and Stewart 2014, 142). Moreover, the positions created through the establishment of new locations helped legislators repay debts owed to sponsors who facilitated their nomination and election (James 2006; Kernell 2001). The electoral implications of postal decisions was clear to local newspapers, as one such example indicates: in May 1886, the *St. Louis Post-Dispatch* reported on a particularly brutal post office debate in the House, and speculated that Rep. Albert Willis of Kentucky may “have a hard fight for renomination on account of his decision in the Louisville Post-office case.” Finally, post office locations were important resources for legislators themselves. Fowler (1943) notes that local postmasters devoted much of their time to party work, sometimes by disseminating campaign flyers through the mail (Kernell and McDonald 1999).

The dependent variable in this analysis is the number of federal post offices per county for even years from 1876 to 1896. This time period represents an appropriate setting in which to study the distribution of post offices given the initiation of rural free delivery in 1896, which altered the need for continued post office expansion. Post offices were distributed to every corner of the country, and the number of post office locations increased from approximately 36,000 locations in 1876 to more than 69,000 by 1896. Accordingly, the post office constituted an increasingly large proportion of federal expenditures, and accounted for 18% of the total domestic federal budget by 1896. The mean number of post offices per county increased from 15 in 1876 to 25 by 1896.

Importantly, control over the siting of post offices was shared between Congress and the executive branch. The Postal Act of 1825 delegated authority to the Postmaster General to designate post office locations but retained for Congress its exclusive authority over postal routes. In practice, the Post Office Department generally awarded post offices in locations that were served by existing postal routes, and members of Congress spent significant effort lobbying the Postmaster General’s office for additional post office locations. The First Assistant Postmaster General was generally responsible for establishing postal locations until the early 1890s, when the responsibility shifted to the newly created Fourth Assistant Postmaster General. Cushing described the process as follows:
The application for the establishment of a new office is made, in a great majority of cases, by ordinary petition. The Department has blank petitions, which are furnished upon application. These are usually called for by someone representing the community in which the office is to be located, and is signed by those who will be patrons of the office, in the event of its establishment. No definite number of names is required; though the character of the petition often has much to do with its favorable consideration at the Department. . . . The Department considers all the information which has been furnished and passes upon the advisability of establishing the office. . . . When the Department is not entirely satisfied with the petition and the other papers in the case, all such papers are sent to one of a chosen corps of advisers of the Department, called “referees,” for his investigation and recommendation. In Republican districts the members of Congress are the referees; in Democratic districts, in states where one or both of the senators are Republican, the cases are referred to them for recommendation. (1893, 277–81)

Though the officers in the Post Office Department responsible for establishing post offices were filled by presidential appointment, scholars have argued that Congress retained its position as the principal in this arrangement (Kernell 2001; Kernell and McDonald 1999) due in part to its ability to modify the terms of delegation.

Given the process outlined above, members of Congress were important for the establishment of post offices for at least three reasons. First, legislators were important sources of information to constituents about the bureaucratic processes for applying for post offices. Second, by serving as referees, legislators could provide information to the Department that would support an application for the legislators’ constituents. And third, legislators could actively lobby the Department on behalf of their constituents. As but one example of the latter phenomenon, the Spring Garden, Alabama post office was closed in 1878 due to charges that its postmaster had speculated in postage stamps. The former postmaster, B. M. Stewart, enlisted the help of the local member of Congress, Rep. William H. Forney, in petitioning Postmaster General David Key to reestablish the post office. Each of these roles required legislators to invest time and attention to help constituents secure post offices. All told, Kernell and McDonald (1999) report that House members commonly spent a quarter to a third of their time on postal-related affairs. Because the establishment of post offices required legislators to expend costly effort on extralegislative affairs, a county’s success in securing additional post offices provides a reasonable measure of particularism and is a clear indicator of the federal government’s presence in local communities.

The key independent variable distinguishes counties in states that used at-large districting institutions to elect members of the House of Representatives. The Apportionment Act of 1842 required that all
members of Congress were elected from single-member districts, though several states (including Georgia, Mississippi, Missouri, and New Hampshire) continued to elect representatives at-large in defiance of the Act. The Apportionment Act of 1850 removed the single-member-district requirement. Many states used at-large districting throughout the nineteenth century and much of the twentieth century, until the Voting Rights Act of 1965 required states to reapportion into single-member districts. A 1967 law passed by Congress further required that all members of Congress are elected from single-member districts.

A number of states used at-large districts to elect representatives to the US House of Representatives between 1876 and 1896. These at-large districts were generally used in combination with single-member districts, in which states elected a number of their congressional representatives through single-member districts while also electing one or more at-large representatives that were chosen statewide. Voters in these states could thus cast a vote for a candidate in their geographic congressional district and also for candidates competing for the at-large seat(s). States with multiple at-large seats used the multiple nontransferable voting system, in which the top vote-getters won the seats. Because representatives elected in at-large districts had no specific geographic constituency other than the state as whole, they are posited to have the free-riding incentives elaborated by Ashworth and Bueno de Mesquita (2006). As an empirical implication, counties in a state with at-large districts would be expected to receive fewer post offices because the districting institution created ambiguity regarding which legislator(s) were responsible for the provision of post offices and resulted in decreased legislative effort in securing these locations for constituents.

Table 1 summarizes the use of at-large districting between the 44th and 54th congresses. In each Congress, states not listed did not use at-large districting. The table shows temporal and within-state variation in districting institutions, which provides leverage for identifying their effects. While no state used at-large districting for the entire time period, a number of states’ districting plans alternated between using entirely single-member and at-large districts during this time period. For instance, Arkansas, California, Georgia, Kansas, Maine, New York, North Carolina, Pennsylvania, and Virginia all used at-large districts in the 48th Congress but had not done so in the 47th Congress; of these, only Pennsylvania continued to use at-large districts in the 49th Congress. The last column describes the percentage of states in each Congress that had at least one at-large district. While a relatively small overall percentage of House members were elected from at-large districts during this time period, the use of at-large districts was not uncommon
for most of US history, as 39 states used at-large districting in the House at some point between 1789 and 1967.

As noted above, most of the states that used at-large districting elected only a few of their House members through this means. Voters’ (and parties’) ability to attribute responsibility (and thus confer credit) for particularistic goods is the key mechanism posited to reduce their provision under MMD. In the case of nineteenth-century congressional districting, even states that elected only one or two of their congressional representatives through at-large districting are likely to have generated ambiguity about how to confer credit for particularism. The nature of the ballot was such that voters in these states voted for one candidate from their local district and a second candidate to represent the state in an at-large district. Because the ballot options for the at-large representative(s)

<table>
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<th>Congress</th>
<th>State</th>
<th>At-Large Seats</th>
<th>Total Seats</th>
<th>Number of Counties</th>
<th>% of States</th>
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Notes: Entries show the states and Congresses during which at-large congressional representatives were elected. States and Congresses not listed did not have at-large districts in place. Idaho, Montana, North Dakota, South Dakota, and Washington all entered the Union in 1889 during the 51st Congress.
appeared in all districted House races, even the use of a single at-large
district would likely have been sufficient to alter the incentives for particu-
laristic behavior.\textsuperscript{17}

At-large districts were generally used when states gained or lost con-
gressional seats following redistricting (Argersinger 2012; Engstrom
2013), particularly when legislatures could not agree on districting plans or
when state parties were confident they could win a state-wide vote. This
would appear to explain why, for instance, Arkansas and Maine adopted
at-large districts for choosing representatives to the 48th Congress follow-
ing the 1880 Census. Arkansas had four seats in the 47th Congress, and
used the additional seat to choose an at-large representative rather than dis-
turb existing district lines. Maine lost a seat prior to the 48th Congress, and
elected to choose all of its representatives via at-large elections rather than
to redraw its five House districts into four. While at-large districts could
(and often did) advantage the state majority party, Engstrom (2013) shows
that at-large districts were also used after seat gains or losses under condi-
tions of divided government in the state that led to disagreement over
districting plans. For reasons somewhat less clear, however, some states
simply redistricted at higher rates in between reapportionment, which
sometimes led to the use of at-large districts. For instance, Pennsylvania
redistricted five times between 1876 and 1894 even though Republicans
held supermajorities in the state legislature in every year but one, which
could explain the at-large districts used in the 1880s. More generally, while
not dispositive, the historical record provides little evidence that changing
patterns of partisan control or competitiveness were associated with a
state’s use of at-large districting.\textsuperscript{18} This evidence helps to ameliorate con-
cerns that changes in partisan control of a state legislature confound the
relationship between districting institutions and distributive benefits.

\textbf{Statistical Model}

Based on the panel nature of the data, I follow previous research
on the distribution of federal resources (Berry, Burden, and Howell
2010) and use a differences-in-differences design to identify the effects
of electoral districting on the distribution of post offices.\textsuperscript{19} Specifically, I
estimate the following model:

$$\ln(\text{post offices}_{ijt}) = \beta_0 + \alpha_i + \delta_t + \beta_1 \text{At-large districting}_{jt} + \mathbf{X}_{ijt} + \epsilon_{ijt}, \quad (1)$$

where \(i, j,\) and \(t\) index counties, states, and years, respectively. I use the
logged number of post offices as the dependent variable because the dis-
tribution is highly skewed.\textsuperscript{20} The model also includes county fixed
effects \((x_i)\) to control for all observed and unobserved time-invariant county attributes that may affect the distribution of post offices, and time fixed effects \((\delta_t)\) to account for changes in the distribution of post offices across time. The key independent variable is an indicator (At-large districting) for whether the state delegation to the US House included at least one representative elected from an at-large district.\(^{21}\) The estimate for \(\beta_1\) is identified using within-state changes in the use of at-large districting, and the parameter estimate describes the average county-level effect of at-large districting.\(^{22}\) If at-large districting led to free riding and thus decreased the provision of federal post offices, I expect the estimate of \(\beta_1\) to be negative. It bears mentioning, however, that the coefficient estimate for \(\beta_1\) is identified using a relatively small number of counties that were affected by the use of at-large districting and described in Table 1, which may limit the generalizability of the finding beyond this context. I also include a matrix \((X_{ijt})\) of other county and state characteristics that may also be related to the distribution of post offices, which are explained below in greater detail. Finally, \(\beta_0\) is a constant term, \(\Omega_{ijt}\) is a vector of coefficients for the additional control variables, and \(\epsilon_{ijt}\) is a random error term that I cluster on state.

Because the distribution of post offices is also likely explained by other, potentially confounding, factors, I also estimate models with several control variables. First, more populous counties were likely to have more post offices, so I include the logged value of county population in all models. Second, because densely populated areas would have needed more post offices than rural areas, I also include a measure of population density, measured by hundreds of people per square mile.\(^{23}\) The electoral environment may also affect the provision of post offices. For instance, demand for post offices may vary with the strength of state and local political parties, and presidents and their administrations may have strategically targeted states in which they narrowly won or lost election (Kriner and Reeves 2015). Thus, I account for potential Electoral College factors by including an indicator for whether a county is located in a state in which the margin of victory was 5 percentage points or less in the most recent presidential election.\(^{24}\) Finally, I also perform additional robustness checks with a variety of other control variables, described in greater detail below.

## Results

I first estimated a model in which the logged number of post offices is regressed on the indicator for At-large districting districts, county Population, and county Population density, along with the year and county
fixed effects. The results are shown in Table 2. The estimated coefficient for the main independent variable is negative and statistically significant, indicating that the use of at-large congressional districts is associated with the provision of significantly fewer county-level post offices. Switching from a single-member districting scheme to the use of at-large districts reduced the number of county-level post offices by approximately 9% relative to other counties.25 The results also indicate that the provision of post offices was sensitive to changes in population; for instance, a 10% increase in population was estimated to increase the number of post offices by about 3.2%. Similarly, increases in population density appear to be associated with greater numbers of post offices, though the substantive magnitude is quite small.

As the results in column (2) indicate, I find consistent results when accounting for electoral factors that may have influenced the incentives for legislators to secure post offices for their constituents. The results provide clear evidence that at-large districting affected particularism and reduced the provision of post offices by about 8%. More populous counties received greater numbers of post offices while, interestingly, the coefficient for states with close presidential elections is negative and indicates that increased competition in presidential elections decreased the provision of post offices by about 6%.

The results presented in Table 2 are robust to a number of alternative model specifications, subsets of observations, and characterizations.

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>At-Large Districts and the Provision of County-Level US Post Offices, 1876–96</th>
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<td>Independent Variables</td>
<td>(1)</td>
</tr>
<tr>
<td>At-large districting</td>
<td>$-0.09^{*} (0.03)$</td>
</tr>
<tr>
<td>Population</td>
<td>$0.32^{*} (0.05)$</td>
</tr>
<tr>
<td>Population density</td>
<td>$0.01^{*} (0.01)$</td>
</tr>
<tr>
<td>Close state presidential election</td>
<td>$-0.06^{*} (0.02)$</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>$-0.49 (0.51)$</td>
</tr>
<tr>
<td>$N$ (total)</td>
<td>25296</td>
</tr>
<tr>
<td>$N$ (counties)</td>
<td>2494</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Notes: Data are from the 44th through 54th Congresses. Entries are linear regression coefficients and standard errors, clustered on states. The dependent variable is the number of post offices per county (logged). County and year fixed effects are also included but not shown. $^{*}p < 0.05$, two-tailed tests.
of the key independent variable. First, a long line of scholarship discusses a variety of political factors that may influence distributive politics such that some constituencies are favored over others. Following Berry, Burden, and Howell (2010), I account for the salient political characteristics of a county’s House member and included indicators for whether a county’s congressional representative was affiliated with the House majority party and/or the president’s party; served on key congressional committees, including Appropriations, Ways and Means, and Post Offices and Post Roads; served as a committee chair or ranking member; was a Democrat or a first-term member of Congress; and was elected with a margin of victory smaller than 5 percentage points. This model produces results consistent with those shown in Table 2.

Second, county-level factors beyond population and population density could have also influenced post office siting and are potential confounding variables. I estimated models that included indicators for a county’s foreign-born and urban populations to account for how these factors affected demand for post offices. I also included a county’s measure of voter turnout in the most recent election to account for the possibility that variation in local social capital or patterns of political mobilization may have contributed to differences in county turnout. Including these additional covariates does not change the coefficient for At-large districting shown in Table 2. Somewhat more tentatively, I estimated a model that includes a measure of each county’s illiteracy rate. Unfortunately, these data were only available for 1870 and 1910, and thus I used linear interpolation for the intervening years. The results from this model are necessarily more tentative, and the coefficient for At-large districting remains negative and statistically significant.

Third, because previous scholarship shows that redistricting and reapportionment can affect the provision of distributive goods (Ansolabehere, Gerber, and Snyder 2002; Horiuchi and Saito 2003), I estimated models that included an indicator for whether a state’s districting plan had been redrawn since the previous Congress. Though I do find that redrawing House district lines is associated with the provision of fewer post offices, the results for At-large districting districts remain unchanged. Moreover, because the use of at-large districts often followed reapportionment and redistricting, I interacted the indicator for At-large districting with the indicator for whether districts had been redrawn since the previous Congress. The coefficient for the At-large districting constituent term continues to be negative and statistically significant (−0.15), while the interaction between At-large districting and the redistricting indicator is positive (0.10) and statistically significant. These results indicate that the use of at-large districts had significantly larger negative
effects on post office provision when redistricting occurred in successive Congresses (and thus not following apportionment), but that the negative effects were smaller (though still statistically distinguishable from zero) when a state redistricted following no changes in districting. Importantly, these findings also rule out an alternative explanation for the results shown above, in which the negative effects of at-large districts were confounded by redistricting such that legislators who are less familiar with new constituencies following redistricting did not advocate as effectively as incumbent legislators representing the same constituencies (Ansolabehere, Snyder, and Stewart 2000). Instead, the interaction results suggest that the negative effects of at-large districts were larger in magnitude in years that did not follow reapportionment.

Fourth, as the discussion above indicated, the use of at-large districts often accompanied changes in the number of a state’s House seats following reapportionment. Gains or losses in the number of House seats could also affect the distribution of post offices, as a county may be likely to receive more distributive benefits when it is represented by additional legislators. (Recall that the use of county fixed effects holds constant the number of representatives between reapportionments.) Thus, I reestimated the models shown above and included a state’s seat gains or losses after reapportionment. I find no evidence that changes in the number of seats affected the number of post offices, and the coefficients for At-large districting are virtually unchanged from Table 2. I also estimated models that interacted the indicator for At-large districting with the change in the number of seats to account for a potential explanation for the use of at-large districts. The main effect for At-large districting continues to be negative and statistically significant, indicating that the use of at-large districts without a change in the number of seats reduced the provision of post offices, and is also somewhat larger in magnitude than the coefficients reported above. The interaction term, meanwhile, is positive and statistically significant, indicating that the relationship between at-large districting and the reduction in the number of post offices is attenuated when at-large districts followed reapportionment. These findings provide evidence that changes in seat shares do not confound the relationship between at-large districts and post offices and also help validate the parallel trends assumption.

Fifth, I investigated the possibility that the effects of at-large districting varied across states with strong and weak party systems. Demand for post offices may have been greater from states with strong parties, and thus at-large districting may have smaller effects in these states. Estimating separate regressions for states with strong and weak parties in 1900 based on the typology found in Mayhew (1986), I find
no evidence that the relationship between at-large districting and the provision of post offices varied based on state party strength.34

Sixth, I examined whether the findings presented above were limited to states whose districting schemes most closely resembled “pure” MMDs. Thus, I estimated the models above while excluding observations for South Dakota, Washington, and (in one instance) Maine, whose districting plans required that all their House representatives were elected on an at-large basis.35 The results from these models are virtually identical to those in Table 2.

The findings are also robust to the level at which the analysis is conducted and specification of key variables. Conducting the analysis at the state level rather than the county level produces nearly identical results. Using the number of post offices at the state level as the dependent variable and estimating the state-level models shown in Rogowski (2016), I continue to find that the use of at-large districting reduced the provision of post offices in a state by between 7 and 9%.36 Returning to the county-level analysis, I also find that at-large districting was associated with significantly smaller increases in the number of post offices.37 Third, the effect of the treatment—the use of at-large districting—likely varied depending on the percentage of the state’s seats elected through that mechanism. As the percentage of at-large seats increased, the free-riding incentives would likely have been greater. Thus, I reestimate the models from Table 2 but characterized the key independent variable as the percentage of seats elected from at-large districts.38 I find that the negative effects of at-large districting increased as a larger share of the state’s representatives were elected through at-large districts, though the coefficient in model (2) falls just short of conventional levels of statistical significance ($p = .074$).

I also estimated additional models to verify assumptions underlying model choice and specification of the key independent variable. First, while the states described in Table 1 comprise all instances in which at-large districts were used during the time period from 1876 to 1896, several states used at-large districts just prior to this time period but did not do so during the period under study. To ameliorate concerns that the choice of the control group is sensitive to the chosen time period, I dropped observations from those states (FL, IN, SC, TN, and TX) that used at-large districts in the 43d Congress (1873–75) but did not do so between 1876 and 1896. The results remain consistent with those reported in Table 2, indicating that the results are robust to excluding states whose institutional settings had recently changed.39 The differences-in-differences design used to evaluate the effect of districting institutions requires the parallel trends assumption, which posits that the
counterfactual change in the number of post offices provided to states with MMD is represented by the average change in the number of post offices in states with SMD. To address the possibility that different states had different trends in the increases in the number of post offices, I estimated models with state-specific linear, quadratic, and cubic trends, and again obtained results nearly identical to those in Table 2.40 Finally, I reestimated the model shown in Table 2 but dropped observations from states with a single congressional district to investigate whether the decision to code these counties as part of the control group materially affected the results and again obtained estimates virtually identical to those in Table 2.41

The results thus provide strong evidence that the use of at-large districts reduced the distributive benefits directed to constituents. Constituents represented by at-large congressional representatives received significantly fewer post offices than constituents represented in single-member districts. These findings are consistent with the account presented by Ashworth and Bueno de Mesquita (2006), in which free-riding incentives in MMD reduce legislators’ incentives to engage in particularism. One of the key mechanisms for securing this theoretical result is that MMD reduces the ability to distinguish the performance of legislators who serve a common geographic constituency.

*Whom Do Legislators Target in MultiMember Districts?*

Not only may electoral institutions shape legislators’ incentives to provide constituency service, but electoral institutions may also affect whom legislators target with local goods. In particular, electoral competitiveness may condition the relationship between the use of at-large districting and the provision of post offices. Re-election-seeking legislators should target constituents for whom distributive goods provide the greatest impact (see, e.g., McGillivray 2004). Votes from marginal or swing constituencies are more valuable to legislators under SMD because their votes can determine whether legislators win or lose, and thus legislators in these systems should target constituents in more competitive environments. However, because votes are valued evenly in MMD elections, legislators in these systems should be less likely to direct benefits to swing constituencies, preferring instead to target their strongest supporters because the marginal costs of their votes are relatively low.

Studies of distributive politics in individual countries provide empirical confirmation for this expectation. For instance, swing constituencies received disproportionately greater benefits under SMD in India.
(Arulampalama et al. 2009) and disproportionately fewer goods under MMD in Italy (Golden and Picci 2008). Moreover, Hirano (2006) finds that changing from SMD to MMD led incumbent legislators to target expenditures to narrow geographic constituencies that provided their core bases of support rather than to swing districts. Though somewhat further afield, studies of US state legislatures find that legislators elected under SMD compile more ideologically moderate voting behavior relative to those elected under MMD (Adams 1996; Richardson, Russell, and Cooper 2004), which suggests MMD creates incentives for legislators to be less responsive to a potential swing voter in their constituency.

I test the hypothesis that legislators are less likely to target swing constituencies under MMD than they are under SMD by estimating a model similar to those shown in Table 2 but that also includes an interaction between the indicator for at-large districts and (lagged) county-level presidential vote margins, which proxies for electoral competitiveness. Larger values of this variable indicate counties with lower levels of electoral competitiveness. If districting institutions alter the constituents to whom legislators target particularistic goods due to the different electoral incentives, the coefficient for the interaction term between at-large districting and county-level presidential vote margins should be positive and statistically significant. These results would be consistent with the hypothesis that the use of at-large districting reduces legislative attentiveness to marginal constituencies.

The results of this analysis are shown in Table 3. The coefficient for At-large districting is $-0.02$ and is not distinguishable from zero, which indicates that at-large districting was not associated with the provision of post offices where the county-level margin of victory in the most recent presidential election was zero. However, the interaction between At-large districting and County-level presidential vote margin is negative ($-0.39$) and statistically significant, and indicates that the negative effects of at-large districts for the provision of post offices increased as electoral competition declined. While counties represented by at-large representatives received fewer post offices than other counties, these negative effects were amplified as electoral competition declined.

Using the results from Table 3, Figure 1 displays how the use of at-large districting affected the provision of post offices on the basis of electoral competition. The fitted line shows the marginal effects of at-large districting across the range of values of electoral competitiveness, and the shaded region represents the 95% confidence interval. Larger values along the x-axis indicate decreased electoral competition, and negative values along the y-axis indicate increasingly negative effects of
at-large districts. The horizontal dashed line indicates where the points would line up if at-large districts had no effect. The tick marks along the top (bottom) of the plot show the distribution of electoral competitiveness among counties with (without) at-large districts.

The figure shows that though at-large districts reduced the provision of post offices across all values of electoral competitiveness, the magnitude of their effect increased as electoral competition decreased. All the marginal effects are statistically distinguishable from zero for counties where the margin of victory was greater than 5 percentage points. For example, for a reasonably competitive county where the margin of victory was 10 percentage points, the use of at-large districts is predicted to decrease the provision of post offices by 5.4%. This effect size more than triples for an electorally uncompetitive county where the margin of victory was 40 percentage points, in which at-large districts are predicted to decrease post office siting by 17.1%.

The findings presented in this section provide suggestive evidence that districting institutions altered the incentives for targeting constituencies with particularistic goods. Contrary to theories that predict that marginal constituencies are more likely to be targeted under SMD, however, the data indicate that the negative effects of at-large districting were especially large in less competitive areas. One possible explanation is that differences in county competitiveness were also associated with county turnout, for which a preliminary comparison provides support.

**TABLE 3**

At-Large Districts and Constituency Targeting, 1876–96

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At-large districting</td>
<td>−0.02 (0.03)</td>
</tr>
<tr>
<td>County-level presidential vote margin</td>
<td>0.10 (0.07)</td>
</tr>
<tr>
<td>At-large district × County-level presidential vote margin</td>
<td>−0.39* (0.15)</td>
</tr>
<tr>
<td>Population</td>
<td>0.33* (0.06)</td>
</tr>
<tr>
<td>Population density</td>
<td>0.02* (0.01)</td>
</tr>
<tr>
<td>Close state presidential election</td>
<td>−0.03 (0.02)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>−0.52 (0.59)</td>
</tr>
<tr>
<td>N (total)</td>
<td>22566</td>
</tr>
<tr>
<td>N (counties)</td>
<td>2473</td>
</tr>
<tr>
<td>R²</td>
<td>0.59</td>
</tr>
</tbody>
</table>

*Notes: Data are from the 44th through 54th Congresses. Entries are linear regression coefficients and standard errors, clustered on states. The dependent variable is the number of post offices per county (logged). County and year fixed effects are also included but not shown.
*p < 0.05, two-tailed tests.*
Average turnout among counties where the margin of victory was greater than 20 percentage points was 59%, compared with 74% turnout in counties with greater levels of competition. Thus, the marginal cost of increasing one’s vote share by directing local goods may have been lower for competitive counties due to the much higher rates of turnout in those areas.

**Conclusion**

The evidence reported in this article directly implicates how districting institutions affect legislative representation and distributive politics. I improve on previous research on this topic by studying the effects of districting within a fixed institutional context, using a clear
identification strategy, and focusing on legislative outputs, rather than using legislators’ self-reports or their attempts at securing distributive goods. The results complement other work in US and comparative contexts that studies how SMD and MMD affect legislative behavior (Adams 1996; Crisp et al. 2004; Heitshusen, Young, and Wood 2005; Kerevel 2015; Richardson, Russell, and Cooper 2004). The results are also quite consistent with those reported in Chen (2010), who shows that increased electoral fragmentation that occurs when voters are represented by bicameral legislatures results in reductions in distributive benefits. However, the results shown here contrast with findings presented in Hirano (2006), which may be explained by the use of SNTV in the case of Japan, but MNTV in the case of at-large US House elections. This represents an important step in evaluating not only how MMD affects political representation relative to SMD, but also how the particular form of MMD influences legislative behavior.

The results imply that the choice of at-large districting systematically disadvantaged states in distributive politics. Consider an example in which two states each had 10 congressional seats, but in one state several of those representatives were chosen at-large. In that state, the members chosen at-large would have had little incentive to work on behalf of geographic constituencies that elected a legislator to represent their single-member district. As a consequence, a state with one or more at-large members would have effectively secured comparatively less effort from its representatives. This finding is especially interesting in light of the account presented in Engstrom (2013) in which majority parties in state legislatures sometimes used at-large districting when they believed it would enable them to capture additional seats. Though it may indeed have increased the party’s share of House seats, the results presented in this article suggest that it may have come at the cost of collective representation.

This article studies the effect of districting institutions on legislative behavior when parochial concerns in the US Congress were said to have been at their peak. During the late nineteenth century, states frequently experimented with a range of various electoral reforms, including how geographic constituencies elected their congressional representatives. A number of states used at-large congressional delegations during this time period (and for the 70 years that followed), but the consequences of these districting institutions have received little attention from the literature. At the same time, the use of at-large districts during this period were but one of many experiments with electoral and districting institutions during a specific period of US history. It is less clear, for instance, how well these results would generalize to the present day if at-
large congressional districts were allowable. In addition, the somewhat infrequent switches between at-large and single-member districting during this time period—and in a handful of states—is an important limitation of the data. That such widespread experimentation occurred during this era suggests some caution in exporting the results to other contexts. It also bears noting that the effects identified in this article result from a relatively small number of instances in which states switched from one districting plan to another. While the case investigated here provides a relatively controlled setting in which biases from unobserved confounders are reduced, it comes at the cost of generalizability. Additional research is necessary to examine whether similar effects are observed in other time periods and settings and when studying other outcomes of interest.

At the same time, the empirical approach used in this article may constitute a conservative test of the relationship between districting institutions and legislative particularism. In contrast with countries that use “pure” multimember districts, the use of at-large districts in the nineteenth-century US House generally accompanied some number of geographic single-member districts. Thus, it is likely that legislators from these circumscribed geographic districts perceived greater incentives to provide particularistic goods relative to the incentives they may have had if there had been no geographic districts, thus resulting in an underestimate of the negative relationship between multimember districting and particularism.

Since many states used at-large congressional districts until the 1960s, future research in American politics could explore how the distribution of other concentrated benefits, such as railroads, rivers and harbors projects, and tariffs, was influenced by the nature of the congressional delegation. In fact, the nature of these goods themselves—for instance, the degree to which their provision required cooperation between federal legislators and local authorities—could have conditioned the relationship between districting institutions and their provision, as Snyder and Ueda (2007) suggest. In addition, future research could also explore how districting institutions affected other incentives for legislative behavior, such as the incentives for legislators to seek particular committee assignments (e.g., Katz and Sala 1996) or exhibit party loyalty (e.g., Carson et al. 2010).

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1. As I will discuss, this argument may not necessarily be true under open-list proportional representation systems or in single nontransferable vote systems.

2. The number of candidates for whom voters may cast votes may also play an important role. For instance, when voters can support only a single candidate, the candidates cannot run primarily or exclusively on the party label, while legislative candidates may have more incentives to do so as voters have as many votes as there are seats.

3. Of course, individual legislators’ behavior may also affect the collective party reputation.

4. Consistent with prior research on the topic (e.g., Ashworth and Bueno de Mesquita 2006), I assume that legislators have a choice between investing effort in targeting local goods to their geographic constituency and securing collective goods that are shared by all. Thus, devoting effort to local goods decreases the effort invested in securing collective goods. The costs of providing both sets of goods, however, are shared collectively.

5. These incentives may be responsible for greater inefficiencies in the provision of particularistic goods under SMD (Weingast, Shepsle, and Johnsen 1981).

6. Crisp et al. (2004) further show that this relationship depended on the nature of the ballot. Under closed lists, when legislators do not have the ability to distinguish themselves individually, SMD decreases parochial service. However, open lists allow legislators to use their personal reputations to secure votes, and thus SMD increases legislators’ attempts to secure local goods. These findings are consistent with the model posited by Carey and Shugart (1995) and with the account posited here that links districting to a legislator’s ability to secure re-election by cultivating a personal reputation.

7. These two studies suggest that the particular form of MMD may also have important implications for particularistic incentives, though I leave this possibility for future theoretical and empirical work.

8. These data come from Rogowski (2016).

9. Rogowski and Gibson (2015) provide evidence of the electoral rewards for post office allocation during this time period, particularly upon the introduction of the secret ballot. Post offices may also have been important ways for presidents to contribute to local party-building efforts (Rogowski 2015).

10. For instance, referring to the time period around the end of Reconstruction, Kernell writes that “politicians were deeply enmeshed in a system of patronage and graft reflecting their indebtedness to the local and state political parties without whose support their careers would have languished” (2001, 103). In related work, Kernell and McDonald (1999) argue that electoral incentives motivated members of Congress to launch postal reform and extend the rural free delivery program around the turn of the
twenty-first century. It is also worth noting that few postal workers were affected by the Pendleton Act, which targeted only the largest post offices in the largest cities. Widespread civil service protection was not extended to postal workers until 1908.

11. T. C. Crawford, “Post-Office Fights: Contests That Will Figure in the Fall Campaign,” *St. Louis Post-Dispatch*, 25 May, 1886, p. 4.


13. Members of the Senate likely perceived similar incentives as House members for securing postal locations. If multimember districting reduced effort on distributive goods among House members, one may wonder whether senators from states with at-large districting would stand idly by rather than work harder to secure additional distributive resources. However, if the use of at-large districting for House elections spurred senators from those states to devote increased effort to securing postal locations, then the results shown below are likely to underestimate the effect of at-large districting. See Chen (2010) for research on how bicameralism affects distributive politics.

14. The House Committee on Elections ultimately determined that these members had been duly elected, and raised questions about the constitutionality of Congress’s ability to set state election laws.

15. As Lee (2004) and Schiller (2000) point out, US Senate seats are also a form of MMDs. However, because every state has two senators, this feature is held constant in the analyses.

16. These arrangements resemble mixed-member proportional and additional member systems used in countries including Bolivia, Germany, Hungary, and New Zealand, in which some legislative seats are chosen via first-past-the-post single-member districts, and the remaining seats are filled from party lists.

17. In analyses reported below, I also consider the possibility that the provision of post offices may have been materially different in states that elected all their representatives from at-large districts as opposed to states that used only a few at-large districts in conjunction with SMDs.

18. State legislatures in four states that used at-large districts—Alabama (Democrats), Arkansas (Democrats), Georgia (Democrats), Kansas (Republicans), and Maine (Republicans)—were controlled by huge supermajorities in each of the years included in this study; in a fifth state, North Carolina, the Democrats controlled both chambers by comfortable margins in all years studied here. Similarly, in Pennsylvania, Republicans held supermajorities in every year except for the lower chamber elected in 1882. Both the South Dakota and Washington state legislatures were controlled by large Republican supermajorities after becoming states, with the exception of the lower chamber in South Dakota elected in 1890 in which Democrats held a plurality. Republicans held the majority in the California legislatures elected in both 1879 and 1880, when California switched to MMD for one congressional term, yet when the Democrats won control in 1882 they switched back to SMD. Finally, the parties had split control of the Illinois legislature when they switched to MMD for one congressional term, and the legislature that returned to SMD was under unified Democratic control. These data were obtained from Dubin (2007).

19. The panel is unbalanced due to occasional missing data in the case of some counties in Alabama in 1876 and because of the admission of Idaho, Montana, North Dakota, South Dakota, Utah, and Washington.
20. Each county had at least one post office.

21. This variable takes a value of zero for states with only a single congressional district.

22. More specifically, this parameter makes use of the changes in the provision of post offices where states switched from all single-member districts to the use of at-large districts as well as circumstances where states reverted to single-member districts from at-large districts.

23. These data were obtained from ICPSR (Study #2896 “Historical, Demographic, Economic, and Social Data: The United States, 1790–2002”). The population and density variables were based on each decennial Census and were linearly interpolated for the intervening years. I also estimated models while controlling for a county’s population growth over the last two years and find results nearly identical to those reported below. Please see Table A.1 in the online supporting information.

24. One could also imagine including an indicator for the competitiveness of the House district in which the county resides. However, note that this would severely complicate efforts to identify the effects of at-large districting since, by definition, counties under at-large districting are represented by multiple members of the US House. For instance, it is altogether unclear how to account for electoral competitiveness using House returns for a county in a state that used single-member districts but also elected several legislators in at-large elections, as many states did. However, this time period mostly predates the introduction of the secret ballot and was during a period of strong parties; presidential election returns are likely to be a suitable proxy for electoral competitiveness due to their high correlations with voting in down-ballot contests, including House elections.

25. Note that all the year fixed effects are positive, indicating that the number of post offices increased from year to year. Thus the negative coefficients should be interpreted as indicating that counties in states with at-large districts received a smaller increase in post offices relative to other counties, rather than as a decrease in the absolute number of post offices.

26. Note, however, that doing so requires me to drop all observations from states in which all House members were elected at-large. Thus, identification of the coefficient for At-large districting in this model comes from within-state changes among those states that switched between electing some of their representatives at-large and electing all of their representatives from single-member districts.

27. The estimates from this model are shown in Table A.2 in the online supporting information. Moreover, the main results from Rogowski (2016) hold when interacting the indicator for At-large districting with the indicators for the partisan alignment of a county’s congressional representative. The indicator for At-large districting is negative and statistically significant, and counties represented by a presidential copartisan under divided government received significantly more post offices than other counties whether or not at-large districts were used.

28. These measures were available from the decennial Census data and were linearly interpolated between Censuses.

29. The coefficient for urban population is negative and statistically significant while the coefficient for foreign born is also negative but not statistically distinguishable from zero. Interestingly, the coefficient for voter turnout is negative (−0.10) and
significant at $p < .07$, indicating a negative relationship between participation levels and the provision of post office locations.

30. The estimates for both these models are included in Table A.3 in the online supporting information.

31. These data come from Lewis et al. (2013).

32. These results are shown in Table A.4 in the online supporting information. I also note that these results also hold up when estimating models that include the indicators for alignment with the president’s party and service on key congressional committees used in Table A.2 as well as their interactions with the indicator for redistricting.

33. The results are shown in Table A.5 in the online supporting information.

34. Strong party states that used at-large districts included NY, PA, and VA, while CA, IL, and KS were weak party states. Please see Table A.6 in the online supporting information. The coefficients for At-large districting are similar in magnitude across both models. They are significant at $p < .10$ in strong party states and at $p < .05$ in weak party states.

35. Results excluding these states are shown in Table A.7 in the online supporting information.

36. Please see Table A.8 in the online supporting information, which also displays the results of models that account for the partisan alignment of the state’s US Senators with the president’s party.

37. Please see Table A.9 in the online supporting information, which uses the change in the number of post offices between years as the dependent variable.

38. I used the logged value of this percentage (plus one). The results are shown in Table A.10 in the online supporting information.

39. These results are shown in Table A.11 in the online supporting information.

40. These results are shown in Table A.12 in the online supporting information.

41. These results are shown in Table A.13 in the online supporting information.

42. Recall that using vote totals for House elections would require identifying which specific House member serves a given geographic constituency, which is not possible when states are served both by single-member districts and at-large representatives.

REFERENCES


Electoral Institutions and Legislative Particularism


**Supporting Information**

Additional supporting information may be found in the online version of this article.

A. Robustness Checks and Extensions

Table A.1: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Accounting for Population Growth

Table A.2: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Additional Political Covariates

Table A.3: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Additional County Covariates

Table A.4: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Accounting for Redistricting

Table A.5: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Accounting for Changes in the Number of Seats

Table A.6: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Accounting for State Party Strength

Table A.7: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Accounting for States with Mixed Districting Schemes

Table A.8: At-Large Districts and the Provision of Post Offices in States, 1876–96

Table A.9: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Alternative Dependent Variable

Table A.10: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Alternative Independent Variable
Table A.11: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Dropping States with At-Large Districts in the 43d House
Table A.12: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: State-Specific Trends
Table A.13: At-Large Districts and the Provision of County-Level US Post Offices, 1876–96: Dropping States with One Congressional District