TERM LIMITS AND ELECTORAL COMPETITIVENESS: CALIFORNIA'S STATE LEGISLATIVE RACES

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ABSTRACT

California's legislative term limits have dramatically reduced campaign expenditures. Real expenditures during the three general elections after the term limits initiative passed in 1990 were lower than in even 1976. This drop has occurred at the same time that races have become closer contests and more candidates are running for office. By any measure, term limits have coincided with large changes in the level of political competition, even before term limits have forcibly removed a single politician from office. The changes are so large that more incumbents are being defeated, races are closer, more candidates are running, and fewer single candidate races than occur at any other time during our sample period from 1976 to 1994.

I. INTRODUCTION

Term limits are not just binding during a politician's last year in a particular office. They also change the returns to political behavior during all earlier periods in a politician's career. Shorter terms seem likely to reduce the returns to campaign spending. Lower expenditures will undoubtedly affect other variables, such as a politician's stock of reputation, which has further implications for entry barriers. Making the date that incumbents leave office more certain encourages the entry by challengers even before the seat becomes vacant, if only to be better positioned once the incumbent does leave. Incumbents may also more frequently be pitted against politicians who

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hold other offices but who do not want to wait for the incumbents to retire, as these challengers may be facing the end of their terms. Reducing the importance of seniority may also lower the returns to running for reelection. Term limits may thus make elections more competitive even before politicians find them binding.

Economists have used historical continuation rates to predict the effect term limits will have on the composition of Congress (e.g., Reed and Schansberg, 1994 and 1995).[1] In particular, this work has asked how limits would affect expected tenure, and whether the limits would benefit Republicans or Democrats. While it is a reasonable first approximation to assume that past continuation rates will continue to apply during the years in which term limits are not binding, this paper points out that some of the more obvious predictions may have to be tempered. For example, though there is little doubt that term limits would produce large "superclasses" of freshman in legislatures, current estimates will be shown to overestimate their size. Reed and Schansberg (1995, p. 710) predict that a six year congressional term limit will produce a "superclass" of 309 freshman (71 percent), almost three time greater than the highest congressional turnover rate during the last 44 years. Yet, to the extent that term limits make incumbents more vulnerable prior to when the term limits become binding, the smaller will be this initial "superclass" and the faster we will see legislative retirements converging towards their long term steady-state.

Other issues, such as how effectively legislatures operate, may turn on the answers to these preceding questions. For example, Garrett (1996, p. 60) points out that, "The certain prospect of large freshman classes at regular intervals would challenge the seniority system; indeed, supporters of term limits probably intend for the adoption of federal term limits to eviscerate the seniority system. . . ." Even if freshman classes do dominate for a while, it is not obvious whether this will be a long term pattern. If not, the returns to seniority may increase in the future, albeit, even then in a much more limited form to what we currently observe. The main issue is whether term limits reduce tenure, and thus legislative experience, by more than the direct limit imposed.

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[1] See also Reed and Schansberg (1992).

Despite the Supreme Court decision in *U.S. Term Limits, Inc. v. Thornton*, that state imposed limits are unconstitutional, the debate seems very much alive. Term limit supporters are threatening more congressional votes on a constitutional amendment, and if that fails, they promise to force the issue by using the states to call for a constitutional convention. Twenty one states now also have term limits for state legislators.[2] Unfortunately, only very limited evidence currently exists on whether term limits will enhance electoral competition (Lott, 1995). While state legislative term limits only started being passed in 1990, with initiatives in California and Oklahoma, no legislators will be forced from office until this year; nevertheless reductions in the value of holding office should already be influencing the behavior of legislators and their opponents. This paper analyzes California state assembly and senate races between 1976 and 1994 to examine the effect of term limits on four areas: campaign expenditures, the closeness of races, the number of candidates running for office, and whether candidates run unopposed.

II. THE THEORY

A. Limited Property Rights, Entry Barriers, and the Timing of When to Run for Office

The value of a political office depends upon what can be achieved by controlling it and how long lived the property rights to it are. This rent seeking view of political competition holds that offices with longer terms are more valuable, and more time and money will be spent to obtain them. Crain and Tollison (1977) provide some suggestive cross-sectional evidence that campaign expenditures are greater for gubernatorial elections to serve four year terms than two year terms, though their results imply that two 2-year terms produce greater total expenditures than one four year term. More recent evidence using state level time-series cross-sectional data from gubernatorial and state house and senate races confirms their earlier findings (Lott, 1995).

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[2] The states are: Arizona, Arkansas, California, Colorado, Florida, Idaho, Maine, Louisiana, Massachusetts, Michigan, Missouri, Montana, Nebraska, Nevada, Ohio, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming.

One possible explanation for why two 2-year terms are more valuable than one 4-year term is that there are diminishing returns to creating transfers, and that when a politician is elected the transfers with the greatest marginal return are made first. The second 2-year term would thus not be worth as much as the first 2-year term, and the return to getting one's favorite politician into office for four years is not worth twice as much as getting one in there for two years. Two consecutive two-year terms are worth more because the group that values producing transfers the most during each period has an opportunity to win office.[3] By tending to produce highest valued transfers, two two-year terms should increase the return to, and thus the level of, campaign expenditures. Jung, et al. (1994) provide evidence supporting a similar explanation for why voters do not elect identically voting senators from the same state. Their explanation focuses on how obtaining wealth transfers reduces successful constituencies' returns to obtaining additional transfers through electing another senator to represent them.

The discussion of term limits is slightly more complicated than simply increasing the length of a term, since there is some chance of being defeated between terms. If the probability that a candidate wins the first election is independent of the probability that he will win the second election, campaign expenditures should not depend upon the presence of term limits. Alternatively, if the preceding notion of diminishing marginal returns to creating transfers were the entire story, the probability of winning the first and second elections would even be negatively correlated. Yet, the investments made in political reputations during the first race do positively effect the probability of winning later elections. It is also important to note that political reputations are nontransferable to the extent that it is a politician's preferences which guarantee his performance (Lott,

[3] To make this point clearer, suppose that there are two well defined groups of constituents: A and B. Group A values winning the office more during the first two years than B does. But conditional on winning the office the first two years, group A does not value winning the second two year term as much as group B values winning its first two year term. If there are two consecutive two-year terms, group A will then win the first election and group B will win the second. The interest groups will be willing to spend more money with two two-year terms than with one four year term simply because more total value is being produced for groups A and B.

1987b). Term limits then effectively act as a tax on campaign expenditures because the politician's specific investments would be lost when the term limit becomes binding, and they will discourage rent seeking from taking the form of campaign expenditures. Obviously, politicians can still run for other offices and thus preserve at least some of this investment, though there is undoubtedly a higher probability of being defeated when switching offices as the constituents and issues faced in different offices are not always identical.

Though they make a different argument, Crain and Tollison also found some weak evidence that restricting the number of successive terms a governor could hold office reduces campaign expenditures (see also Besley and Case, 1995b, p. 793). However, Crain and Tollison's (1977) cross-sectional study was limited by not controlling for other factors which could affect the level of campaign expenditures. More recent evidence using state level time-series cross-sectional confirms both the effect of term limits and term lengths on expenditures (Lott, 1995).

While California's term limits do not actually remove politicians from office until 1996, it should have begun to impact the returns to campaign expenditures when it passed in 1990, or possibly even before to the extent that they were anticipated. Proposition 140, limiting members of the California Assembly to three 2-year terms and State Senators to two 4-year terms passed by a relatively close 52 to 48 percent vote in the November 1990 general election. The uncertainty over whether the initiative would pass and, to a lesser extent, questions over whether the California Supreme Court would find it constitutional should have limited the impact of the initiative on the 1990 election.

If term limits do reduce campaign expenditures, the effects are not limited to just a particular term. Past investments in a candidate's reputation lower his costs of raising future campaign funds and reduce the return to campaign spending. Past reputations also make it harder for opponents to mount successful challenges. This last point involves the issue of entry barriers in political markets: to the extent that political reputations are nontransferable, past investments in reputation can produce differential costs of production between challengers and incumbents in producing political support. For U.S. Congressional races, previous studies (Lott, 1987b and 1989) indicate that a politician's past campaign expenditures raise his current

campaign expenditures and lower his opponent's expenditures.[4] In the short run, reductions in campaign expenditures will favor incumbents who have acquired a stock of reputation. The larger is an incumbent's preexisting reputational stock, the greater the relative advantage produced by the incumbent from similar reductions in current expenditures by both incumbents and challengers.[5] If these effects continue over time as term limits eliminate incumbents with larger pre-1990 campaign expenditures (and thus a larger stock of political reputation), the difference between the incumbent's and the challenger's reputational investments should decline. thus, we should observe future races becoming more competitive.

The effect of term limits should also vary across incumbents based upon when they entered office. A reduction in a politician's reputational stock from lower current expenditures is likely to be greatest for political newcomers. Politicians entering prior to 1990 should be relatively less vulnerable to any effect term limits have.

Term limits also obviously change the timing of a candidate's decision to run for office. An ambitious politician can challenge an incumbent, though that is obviously a relatively risky strategy. However, just as incumbents can acquire reputational investments from past campaign expenditures, so too can challengers. Prior to term limits challengers might ideally have wanted to run for office against an incumbent despite near-certain defeat to position themselves should the incumbent choose to retire. In the past, the difficulty with this was that the incumbent may have chosen to remain in office longer than anticipated by the challenger, and any reputational investments made by the challenger would thus depreciate before the incumbent eventually does leave office. While politicians do sometimes announce when a particular election will be their last (e.g., Lott, 1987a), it is relatively unusual. Making the date that incumbents must leave office by more certain (through term limits), may encourage challengers to enter into races before the seat actually becomes vacant.

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[4] For some historical evidence on these questions see Coates and Dalton (1992) and Yen, et. al. (1992).

[5] Incumbents with large reputations however may experience larger (absolute or percentage) reductions in current campaign expenditures simply because the marginal returns to them making expenditures will be lower.

A politician's returns to campaign expenditures systematically change over the course of the politician's tenure, though short term limits will compress these changes. If politicians leave public life after reaching the term limit and if campaign expenditures do not depreciate instantly, incumbents will have a relatively lower return to investing in campaigns near the ends of their terms since they will have fewer terms over which to recoup any investment. If term limited politicians run for other offices, the scenario becomes more complicated as campaign spending will be useful for future campaigns. However, there is still one difference limiting the returns to earlier campaign spending for the politician planning to run for another office: the constituency for the possible future office will be different. Thus term limits should definitely reduce the return to campaign expenditures.

Although not yet extremely relevant for the time period that we study, there is still another reason to suspect that term limits will increase electoral competition. A politician facing term limits may no longer be able to wait until the incumbent for the next office that he plans on moving to leaves. Experienced politicians "kicked out" by term limits thus will challenge and occasionally defeat other incumbents sooner than those incumbents would have been removed through term limits. This problem is further compounded since the terms for California's Assembly and Senate seats do not match up particularly well. For example, a member of the Assembly may not have to leave until 1996, but if the Senate seat he desires is only open in 1994 and 1998, he may feel compelled to run in 1994 and thus vacate his office early.[6]

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[6] While no direct link was drawn to term limits, Alexander (1995) writes that: "In 1994, California politicians engaged in a massive game of 'musical chairs;' several constitutional officers either retired or ran for other statewide offices, resulting in many 'open' statewide seats with no incumbent running. 27 legislators chose not to seek re-election to the same office, many opting instead for statewide bids, while some chose to run for other elective offices. This turnover resulted in 22 'open' Assembly seats and four open Senate seats, where no incumbent was running. One of the goals of term limits was to return seasoned politicians to the private sector. However, of the 27 legislators who did not seek re-election, only five retired from public office. The other 22

One serious caveat should be mentioned. Removing long serving politicians is not necessarily the same thing as increasing "efficiency." Tenure can also be related to higher reelection rates simply because those politicians who differ from their constituents' interests are most likely to have been defeated already. Sorting by voters of their desired representatives could produce similar results to entry barriers with respect to either tenure or past campaign expenditures. The explanation for tenure is obvious. The longer incumbents survive the closer they may be to their constituents' values and the lower the probability that a challenger would be preferred. Incumbents who do deviate from their constituents may thus be sorted out of office quickly, and while no evidence yet exists for state level offices, recent studies for both the U.S. Senate (Lott and Davis, 1992) and the U.S. House of Representatives (Lott and Bronars, 1993) indicate that this sorting does occur extremely quickly. Likewise, the higher an incumbent's past campaign expenditures, the lower might be his costs of raising future expenditures simply because constituents are better matched with the preferred candidate and face a greater loss if represented by somebody else.[7]

Term limits can also weaken the effectiveness of electoral sorting. If running for office requires a large initial sunk investment, politicians who more closely match the positions of their voters are more likely to run because they face a longer expected horizon over which to recoup this investment. In the extreme, it may only pay for those politicians whose views perfectly match their constituents to run in the first place (Lott and Reed, 1989). Yet, even though politicians can run for other offices after they reach their term limits, as long as politicians are not able to transfer all of their investment

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ran for other elective positions, often against other incumbents, resulting in even more costly and bitter contests."

Alexander's discussion implies that this was an unusually high level of "musical chairs," though it would be useful to document how this has changed over time.

[7] However, this last point on campaign expenditures is particularly difficult to separate from an entry barrier type story since matching a politician to a particular donor undoubtedly represents at least to some extent a nontransferable investment. Donors make contributions to the particular candidate because they become convinced that he strongly holds certain intrinsic preferences, preferences that are nontransferable.

between elected offices (e.g., the offices encompass different districts) or as long as they face a higher probability of being defeated whenever they switch offices, term limits will weaken those forces which discourage "mismatched" politicians from running for office.

The bottom line for this discussion is that term limits will reduce campaign expenditures, but the effect that reduction has on how competitive races will be is, at least in the short run, somewhat more ambiguous. In the short run the effects can go either way with the entry barrier story possibly making races less competitive if incumbents have large stocks of reputation. In the longer run, even the entry barrier story tends to work towards increasing electoral competition.

B. Other Factors that Determine the Level of Campaign Expenditures and Political Competition

Other papers have suggested factors that explain the levels of campaign contributions/expenditures. For example, Snyder (1990 and 1992) has dealt with how past investments in reputation influence future contributions and how these actions vary over a politician's life cycle. Lott (1987b and 1989) has asked the same questions regarding expenditures. While Snyder finds that contributions decline with age and Lott shows that higher past expenditures by an incumbent reduces his opponent's expenditures and both look at the effect of tenure, no implications were drawn for how total campaign expenditures have been changing over time.

Following this literature, we assume that campaign expenditures are a function how close elections are expected, and the characteristics of the incumbent which involves both questions of sorting and entry barriers. This paper attempts to control for the expected closeness by measuring the closeness of the incumbent's past elections, whether the election is contested, and whether an incumbent is running for reelection. Issues of entry barriers and sorting are measured by including variables for tenure and the incumbent's past campaign expenditures, though these past campaign expenditures will not be used in all the regressions because this reduces our sample size by about 20 percent.

Campaign finance rules also changed during the period. In June 1988, Californians passed Proposition 73 which imposed Federal style campaign donation restrictions on candidates for state office (a

$1,000 limit on individual contributions to candidates for state office, a $2,500 limit on contributions from political action committees, and a $5,000 limit on contributions by political parties). The rules went into effect on January 1, 1989, but were over turned by a U.S. District Court decision in September 1990 and were thus in effect for only part of one election cycle (Rabin, 1988, part 2, p. 4 and Stansky, 1992, p. 1). To control for this all the specifications include a dummy variable that equals one for the 1990 election. To the extent that these rules make it more costly to raise donations, campaign expenditures will be reduced. One problem with interpreting any result with this dummy variable is that term limits also passed in 1990 and will also have the same effect campaign expenditures. However, term limits and campaign donation limits are likely to have the opposite effects on making campaigns competitive. Most work by economists and political scientists argue that campaign donation limits raise the costs of challengers running for office relative to that for incumbents.

Redistricting, which occurred during both 1982 and 1992, results in established candidates facing new constituents and sometimes results in forcing incumbents to run against each other. Presumably, to the extent that the normal advantages of incumbency are weakened by incumbents facing new constituents, it will encourage new and possibly stronger than normal candidates to run for office. Any differences in state senate verse state assembly races and whether the race is a general or primary election must also be controlled for. Not only do the two bodies have different numbers of seats and different constitutional responsibilities (in other words, there are different values to holding a seat in the different chambers), but their terms are of different lengths. In addition, just as altruism may be important in explaining why people vote, it may also explain the level of campaign donations. Presumably, higher campaign contributions include the possibility that giving to campaigns is like giving to charitable organizations in that it increases with income (e.g., Roberts, 1984). However, the existing evidence linking campaign contributions and income is inconsistent across studies (Snyder, 1992; Lott, 1987b and 1995).

Finally, we recognize the possibility of technological change. Over the time studied, innovations include computers, polling, and mass mailings. While the paper does not include specific variables

that reflect such changes since neither measures of how much district level campaigns spent on different portions of their campaigns nor indexes of these costs are available, it is hoped that the district dummies and either a time trend or year dummies will proxy for these changes. If changes in campaign techniques are disseminated and adopted quickly across districts, the year dummies should pick up any effects that may exist. We are less concerned about identifying what changes in campaign technology may have affected campaign expenditures than we are about making sure that term limits not accidentally proxying for some left out effects. A separate dummy variable that only equals one in 1982 and 1992 is used to help us pick up any increased competition resulting from redistricting.

III. DATA

Our data set consists of all the California State Assembly and Senate general and primary elections involving Democrats and/or Republicans that occurred between 1976 and 1994. Unfortunately, time limitations prevented us from including data from the 1994 primary elections, and the California Fair Political Practices Commission no longer had records for expenditures during the 1978 general elections. Each general and primary election represents a separate observation. Thus most offices involve 3 observations during each election cycle (one general election and two primary elections, one Republican and one Democrat). Tenure was calculated only from the 1974. The variables and sources are listed in Table 1.

IV. THE RESULTS

A. Campaign Expenditures

The year 1996 is shaping up as an important one for campaign finance reform in California. One or possibly two ballot initiatives are scheduled to appear on the November ballot that propose to dramatically limit campaign expenditures for legislative and statewide offices (Sacramento Bee News Service, February 28, 1996). When California first passed initiatives limiting campaign spending in 1988, State Assembly and Senate general election races averaged costing $345,218 in real 1982 dollars and had reached their peak in real terms. As the following regressions show, the irony of these

new campaign finance initiatives is that term limits have already greatly reduced campaign expenditures in California. By 1992 and 1994, the first two full election campaigns to take place after term limits had passed, State Assembly and Senate general election races had fallen to $232,805 in real 1982 dollars. Real campaign expenditures for the three general elections from 1984 to 1988 averaged $309,144, or 44 percent higher than the $215,019 spent on the three general elections that took place after the term limits initiative passed.

To systematically test the effect of term limits on campaign expenditures, a dummy variable is added to all our regressions that equals one for the 1992 and 1994 election cycles. The simple specifications in Table 2 attempt to explain the total level of a district's campaign expenditures in the general and primary elections. It includes exogenous variables on the expected closeness of the race: whether there is an incumbent in the race, lagged margins by which the incumbent has won the district in either the primary or general election, whether the incumbent is unopposed, the incumbent's tenure, and whether redistricting has occurred. Other exogenous variables are: per capita state income, dummy variables to distinguish general from primary elections and whether it is an Assembly or Senate race, a time trend, and a dummy variable for 1990. Total campaign expenditures includes expenditures by all candidates in either the general or primary elections. There are two sets of specifications. One that distinguishes whether the endogenous variable for total expenditures is in natural logs or not and another breakdown by whether the squared values of lagged vote margin and tenure are used. We have no strong beliefs about whether these variables enter in linearly in the specifications so it is best to report both sets of results.

One very strong conclusion can readily be drawn from Table 2: there was a definite break in the growth of campaign expenditures that probably started in 1990, but had definitely occurred by 1992 and 1994. The most surprising finding is how extremely large the effect is. The results imply that the 1992 and 1994 drop in campaign expenditure offset between 7.5 (specification 1) and 9.4 cycles, specifications 3 and 4 imply a reduction in expenditures that puts us just back before the very beginning of our sample. If fact, real

general election expenditures in 1976 were $245,613, about $30,000 more than the 1992-94 average.

With the exception of specification 1, the economic importance of the 1992-94 dummy is larger than the dummy for 1990. Again, as noted earlier, the 1990 year dummy is somewhat difficult to interpret because the term limit initiative was not passed until November 1990 and, also, because the 1990 election cycle was the only time that campaign donations were limited by law. The coefficient for 1990 is very similar in size to the drops in spending implied by the term limit dummy.. However, it is difficult to know what if any of the reduction in expenditures one can attribute to the temporary change in campaign finance laws.

Given that the court decision invalidating Proposition 73's limits on campaign was delivered in September, 1990 and that the initiative was passed in November, 1990, we tried rerunning the all regressions presented in this paper with a term limit dummy that equaled one starting with the 1990 general election. The 1990 year dummy equaled one only for the primary election. The results remained very similar to those presented here with the exception that the new 1990 year dummy was never statistically significant. These results indicate that the campaign donation limits were not the driving force behind any drops in campaign expenditures during 1990.

Overall the results are consistent with what the theory predicts, though the coefficients are not always significant. The greater the incumbent's victory margin in past elections, the less that is spent in the current election (though there are diminishing returns to that effect). As expected more money is spent in State Senate races and in general elections. Less money is spent by incumbents, and less is spent when there is only one candidate in a race. The most surprising results are that redistricting either has no significant effect or a negative and significant effect on campaign expenditures, tenure is not significantly related to expenditures, and that per capita income is never both positively and significantly related to campaign expenditures. It would be interesting to see whether this last effect continues even when constituency income by district is also controlled for.

Table 3 puts the effect of term limits in equally sharp contrast. In this table, we use yearly dummy variables instead of a time trend

to control for other factors that might account for changing campaign expenditures over time. All the other variables that were controlled for in Table 2 are again controlled for here though they are not reported since the results are extremely similar to those already reported. While many of the year dummies are significant, only the term limit dummy is negative and significant. All the term limit dummies imply economically large drops in campaign expenditures of over $100,000.

Finally, while we have attempted to control for the incumbent's stock of brand name capital through such things as tenure, this is a relatively imperfect measure. Table 4 attempts to control this stock by using the depreciated stock of past campaign expenditures over the two preceding election cycles. This variable is controlled for separately because including it reduces our sample size by over 300 observations. While Table 4 only reports the results using a 20 percent annual depreciation rate, we also ran regressions with depreciation rates of 10, 30, and 40 percent, but the results were all very similar to those shown in Table 2. The regressions show that the larger the incumbent's depreciated stock of campaign spending the greater current total campaign spending. Specifications 3 and 4 imply that a one dollar increase in this depreciated stock of past expenditures raises that total current spending by about 12 cents.

B. The Probability that an Incumbent will be Defeated

While term limits are expected to make incumbents more vulnerable in the long run, the short term effects are more ambiguous. For example, while challengers may be induced to run before the term limits become binding simply to be well positioned for when the incumbent leaves, initial entry barriers are likely to be even greater than usual because current campaign expenditures are reduced without reducing the large stock of reputations incumbents have acquired. Which effects dominate in the short run can only be answered empirically. Table 5 attempts to answer that question by running a dummy variable for whether an incumbent was defeated on the variables used in Table 2 (with the exceptions of the dummy for unopposed incumbents and the state income variable). The logit regressions are restricted to only those observations where an incumbent is running for reelection and the specifications use both

the time trend and the individual year dummy variables to explain the changes in the probability.

Table 5 implies that the probability of incumbents being defeated fell from at least 1980 to 1988 and then rose dramatically during 1990, 1992, and 1994. The results using the time trend imply that the 1992 and 1994 increase in the probability that incumbents will be defeated offset between 15.7 (specification 1) and 13.8 (specification 2) election cycles worth of decline in that probability. Given that the data only encompasses 10 election cycles, these two specifications imply an increase in the probability that incumbents will be defeated that is outside our sample period. The specifications 3 and 4 using the year dummy variables implied a less dramatic those still strong result: term limit increased the probability of incumbents being defeated back to where it had been in 1980.

Given the very short-lived nature of Proposition 73's campaign donation limits and that the probability of incumbents being defeated was between 14 and 37 percent higher in 1992 and 1994 than 1990, it appears very difficult to attribute much if any of the drop in reelection rates to the campaign donation limits. If anything, the results weakly suggest the reverse occurring: that term limits lowered the probability, but not by as much as would have occurred without the donation limits. This result is also consistent with much of the political science and public choice literatures that view donation limits as making it relatively more difficult for challengers than incumbents to raise money.

The other coefficients have signs that are consistent with our earlier discussion, but they are not always significant. Incumbents who did well in previous elections have a lower probability of being defeated, though this effect increases at a decreasing rate. Incumbent's tenure significantly reduces the probability that an incumbent will be defeated, though this declines at a decreasing rate. State senators and those running in the general election both face higher probabilities of being defeated. Redistricting and presidential elections raise the probability of an incumbents being defeated, though only in one specification is one of these coefficients significant.

C. The Number of Major Party Candidates, Vote Margins, and Whether Candidates Run Unopposed

Table 6 presents other evidence on the increased legislative competition that has arisen under term limits, and the results are consistent with those in the preceding section and our theoretical discussion. The regressions use the same specifications that we used earlier except that the dummy for whether candidates are running unopposed is excluded from the first and fourth regressions since those regressions are themselves attempting to explain the number of candidates. Term limits appear to have dramatically reversed weak time trends indicating that the number of major party candidates in races were falling, races were become less close, and more races involved just a single candidate. Imposing limits increases the number of major party candidates by 24 percent of a standard deviation, decreases the vote margin in elections by 10 to 22 percent of a standard deviation, and decreases the number of races where there is only one candidate by 89 percent of a standard deviation. As with the earlier results, all these regressions imply that term limits produce more electoral competition than existed earlier during the entire sample period. These four specifications were also rerun with year dummies and with the squared values of the lagged vote margins for incumbents and tenure, and they resulted in very similar results.

III. CONCLUSION

California's legislative term limits have dramatically reduced campaign expenditures, while at the same time that more candidates are running for office and races are becoming more competitive. By any measure, term limits have coincided with large changes in the level of political competition, and these changes have occurred even before term limits have even forcibly removed one politician from office. The regressions imply that term limits have reduced real campaign expenditures to less than what was spent in 1976 when campaign expenditure data was first collected. The changes are so large that more incumbents are being defeated, races are closer, more candidates are running, and there are fewer single candidate races than at any other time in our sample.

Tables Follow

TABLE 1

LIST OF VARIABLES AND DESCRIPTIVE STATISTICS

Variable Name	Description	Mean	Standard Deviation
Margin	Margin of victory in primary and general elections	69.63	36.63
Lagged Margin Incumbent	Margin of victory by the current incumbent in the last similar type of election	49.01	44.29
ln(Lagged Margin Incumbent)	Margin of victory by the current incumbent in the last similar type of election	3.959	0.9473
Incumbent Dummy	Equals one if there is an incumbent in the race	0.564	0.4959
Unopposed Dummy	Equals one if there is only one candidate in the race	0.561	0.4964
Incumbent's Tenure	Incumbent's tenure in number of years (Mean for years 1982-94)	4.6086	4.901
Presidential Year Dummy	Equals one if it is a presidential election year	0.4986	0.5001
Total District Campaign Expenditures	Total Campaign Expenditures by type of election in 1982 dollars	94,970.77	200,666.70
Number of Major Party Candidates	The total number of major party candidates running for office in either a general or primary election in a particular district	1.382	1.135

Sources

Primary Election Results: California Secretary of State, *Statement of Vote and Supplement Primary Election*, June 8, 1976; June 6, 1978; June 5, 1984; and June 3, 1986. *Los Angeles Times*, June 8, 1978; June 5, 1980; June 9, 1982; June 10, 1982; June 9, 1988; June 7, 1990; and June 4, 1992.

General Election Results: California Secretary of State, *Statement of Vote and Supplement General Election* November 7, 1978. California Secretary of State, *Statement of Vote General Election* November 2, 1976; November 4, 1980; November 2, 1982; November 6, 1984; November 4, 1986; November 8, 1988; November 6, 1990; and November 3, 1992.

Campaign Expenditures: California Fair Political Practices Commission, *Campaign Contribution and Spending Reports*, State of California: Sacramento, Ca., various years.

TABLE 2

CAMPAIGN EXPENDITURES AND TERM LIMITS

(OLS is used to produce these estimates and State Assembly and Senate district dummies were included in all specifications. All dollars are in real 1982 dollars. Absolute t-statistics are in parentheses.)

	Endogenous Variables			
Exogenous Variables	ln (Total District Campaign Expenditures)		Total District Campaign Expenditures	
	(1)	(2)	(3)	(4)
Term Limit	-1.2013	-1.2535	-132248.2	-134124.4
Dummy 1992-94	(4.623)	(4.776)	(3.859)	(3.889)
Dummy 1990	-1.10827	-1.1300	-140133.1	-133537.6
	(1.795)	(1.828)	(1.714)	(1.638)
Time Trend	0.15955	0.1594	15278.16	14344.51
	(2.762)	(2.759)	(1.992)	(1.876)
Lagged Margin	-.00213	-.01728	-337.05	-4614.63
Incumbent	(1.241)	(2.103)	(1.494)	(4.259)
Lagged Margin	. . .	.00013	. . .	36.98172
Incumbent Sq.		(1.905)		(4.050)
Unopposed	-.78149	-.7767	-61908.63	-62670.14
	(7.357)	(7.307)	(4.499)	(4.566)
Presidential	0.1888	0.17275	23361.2	21595.52
Year Dummy	(1.357)	(1.241)	(1.299)	(1.204)
Incumbent	-.1641	-.2235	-28273.52	-50901.05
Dummy	(0.913)	(0.938)	(1.195)	(1.624)
Incumbent's	0.00928	-.04686	2782.98	-794.818
Tenure	(2.619)	(1.071)	(1.433)	(0.142)
Incumbent's	. . .	.00358	. . .	251.2856
Tenure Squared		(1.428)		(0.796)
Redistricting	-.59429	-.4500	-70517.07	-30948.57
Year Dummy	(2.184)	(1.735)	(1.971)	(0.865)
Per Capita Income	-.00017	-.00016	-8.0890	-5.7393
at the State Level	(1.275)	(1.229)	(0.456)	(0.325)
Senate Dummy	1.16869	1.1247	296860	294291
	(1.647)	(1.585)	(3.121)	(3.104)
General Election	0.6634	0.7552	62991.26	84030.7
Dummy	(5.228)	(5.701)	(3.768)	(4.829)
Intercept	12.3214	12.2025	120518.2	78489
	(5.789)	(5.736)	(0.427)	(0.279)
Number of Obs.=	1749	1749	1841	1841
F-Statistic =	4.32	4.31	4.78	4.88
Adj-R^2 =	.1979	.2000	.2107	.2178

TABLE 3
CAMPAIGN EXPENDITURES AND TERM LIMITS:
USING YEAR DUMMIES FOR 1978 TO 1990 INSTEAD OF A TIME TREND

(Specifications 1 through 4 use OLS and correspond to their number counterparts in Table 2. The same variables that were controlled for in Table 2 are controlled for here with the exception of year dummy variable for redistricting years. Some year dummies were dropped because of collinearity. State Assembly and Senate district dummies included in all specifications. All dollars are in real 1982 dollars. Absolute t-statistics are in parentheses.)

	Endogenous Variables			
Exogenous Variables	ln (Total District Campaign Expenditures)		Total District Campaign Expenditures	
	(1)	(2)	(3)	(4)
Term Limit Dummy 1992-94	-.8012 (5.995)	-.8627 (6.311)	-108033 (6.231)	-115667.8 (6.551)
Year Dummy 1990	0.9098 (4.119)	0.8833 (4.000)	-3552.24 (0.144)	-4779.02 (0.194)
Year Dummy 1988	Dropped due to collinearity		Dropped due to collinearity	
Year Dummy 1986	0.5478 (2.326)	0.5423 (2.301)	Dropped due to collinearity	
Year Dummy 1984	0.2980 (1.515)	0.3018 (1.537)	21004.82 (0.798)	20662.22 (0.788)
Year Dummy 1982	0.36247 (1.701)	0.3510 (1.643)	-36121.8 (1.418)	-37607.6 (1.482)
Year Dummy 1980	Dropped due to collinearity		Dropped due to collinearity	
Year Dummy 1978	Dropped due to collinearity		-61707.82 (1.980)	-56804.22 (1.701)
Intercept	7.10805 (7.848)	8.459 (9.966)	-302497.7 (2.323)	-321696.4 (1.827)
Number of Obs.=	1749	1749	1841	1841
F-Statistic =	4.29	4.28	4.75	4.85
Adj-R^2 =	.1977	.1997	.2106	.2177

TABLE 4
CAMPAIGN EXPENDITURES AND TERM LIMITS: RERUNNING THE SPECIFICATIONS IN TABLE 2 BY INCLUDING A TERM FOR EACH INCUMBENT'S DEPRECIATED BRAND NAME CAPITAL USING A 20 PERCENT DEPRECIATION RATE

(Specifications 1 through 4 use OLS and correspond to their number counterparts in Table 2. While the results for the other variables are not reported, the same variables that were controlled for in Table 2 are controlled for here. Again, State Assembly and Senate district dummies included in all specifications. All dollars are in real 1982 dollars. Absolute t-statistics are in parentheses.)

	Endogenous Variables			
Exogenous Variables	ln (Total District Campaign Expenditures)		Total District Campaign Expenditures	
	(1)	(2)	(3)	(4)
Term Limit	-1.20236	-1.2742	-133196.1	-137049.5
Dummy 1992-94	(4.168)	(4.367)	(3.580)	(3.655)
Dummy 1990	-1.1799	-1.0743	-158906.4	-132964.7
	(1.640)	(1.491)	(1.705)	(1.428)
Time Trend	0.1585	0.1494	15135.67	12805.11
	(2.394)	(2.254)	(1.761)	(1.492)
Incumbent's Depreciated Past Campaign Exp.	3.38e-7	3.44e-7	.1202	0.1215
	(1.672)	(1.702)	(4.782)	(4.856)
Number of Obs.=	1415	1415	1498	1498
F-Statistic =	3.66	3.69	4.84	4.92
Adj-R^2 =	.1980	.2018	.2514	.2584

TABLE 5

TERM LIMITS AND THE PROBABILITY THAT AN INCUMBENT WILL BE DEFEATED

(Logit regressions were used to explain a dummy variable that equaled one when an incumbent was defeated. The sample is restricted to only those observations where an incumbent was running for reelection in either the primary or general elections. Though they are not reported, the same variables that were controlled for in Table 2 are controlled for here. Again, State Assembly and Senate district dummies included in all specifications. All dollars are in real 1982 dollars. Absolute z-statistics are in parentheses.)

Exogenous Variables	Endogenous Variable: Whether Incumbent was Defeated			
	(1)	(2)	(3)	(4)
Term Limit Dummy 1992-94	2.8097 (3.007)	2.0601 (2.086)	1.0215 (2.350)	0.8289 (1.873)
Dummy 1990	2.0512 (2.878)	1.7657 (2.257)	0.8999 (1.477)	0.71157 (1.040)
Time Trend	-.1793 (2.161)	-.14897 (1.721)	. . .	. . .
Year Dummy 1988	. . .	. . .	-1.4734 (1.612)	-1.0414 (1.221)
Year Dummy 1986	. . .	. . .	-.93819 (1.078)	-.93179 (1.017)
Year Dummy 1984	. . .	. . .	-.8193 (1.048)	-1.2763 (1.520)
Year Dummy 1982 collinearity	. . .	. . .	Dropped due to	
Year Dummy 1980	. . .	. . .	0.9928 (1.648)	0.65817 (1.041)
Year Dummy 1978 collinearity	. . .	. . .	Dropped due to	
Lagged Margin Incumbent	-.0114 (2.178)	-.0554 (2.224)	-.01160 (2.190)	-.05627 (2.237)
Lagged Margin Incumbent Sq.	. . .	0.0004 (1.853)	. . .	0.0004 (1.849)
Presidential Year Dummy	0.6748 (1.612)	0.90977 (2.063)	0.51296 (1.051)	0.9326 (1.774)
Redistricting Year Dummy	0.2741 (0.658)	0.40096 (0.922)	0.6472 (1.478)	0.6313 (1.348)
Incumbent's	-.1107	-.6543	-.11460	-.6835

Tenure	(2.331)	(4.945)	(2.388)	(4.987)
Incumbent's Tenure Squared	. . .	0.0334 (4.386)	. . .	0.034999 (4.406)
Senate Dummy	18.3647 (10.264)	16.473 (6.407)	18.376 (11.436)	17.453 (6.663)
General Election Dummy	0.4377 (1.128)	1.1723 (2.541)	0.4820 (1.223)	1.2269 (2.616)
Intercept	-18.1459 (6.997)	-16.0628 (6.464)	-20.35 (9.695)	-18.769 (8.099)
Number of Obs.=	846	846	846	846
Log Likelihood =	-162.98	-146.65	-160.37	-143.42
Chi-Squared=	107.23	139.89	112.44	146.33
Pseudo R^2 =	.2475	.3229	.2596	.3378

TABLE 6

TERM LIMITS, THE NUMBER OF MAJOR PARTY CANDIDATES, VOTE MARGINS, AND WHETHER CANDIDATES RUN UNOPPOSED

(OLS is used for the first three specifications and a logit specification is used for the fourth. State Assembly and Senate district dummies are included in all specifications. All dollars are in real 1982 dollars. Absolute t-statistics are in parentheses.)

	Endogenous Variables			
Exogenous Variables	No. of Major Party Candidates	Absolute Vote Margin Between Top 2 Candidates	ln (Absolute Vote Margin Between Top 2 Candidates)	Dummy Variable Equaling in Only 1 Candidate in Race
	(1)	(2)	(3)	(4)
Term Limit Dummy 1992-94	0.2666 (2.684)	-4.3199 (3.070)	-.2084 (3.102)	-.4406 (1.584)
Dummy 1990	0.0715 (0.861)	-4.1463 (3.533)	-.1686 (3.010)	0.03116 (0.128)
Time Trend	-.0160 (1.836)	0.0867 (0.701)	0.0081 (1.670)	0.0030 (1.321)
Redistricting Year Dummy	0.0456 (0.889)	-1.5382 (2.115)	-.0357 (-1.028)	-.1073 (0.739)
Lagged Margin Incumbent	-.00212 (2.623)	0.02798 (2.452)	0.0004 (0.737)	-.0030 (1.228)
Unopposed	. . .	68.3369 (95.223)	1.4871 (43.403)	. . .
Presidential Year Dummy	0.0205 (0.447)	-.07829 (0.120)	-.00578 (0.186)	-.11936 (0.892)
Incumbent Dummy	-.4880 (5.983)	3.1412 (2.708)	0.2229 (4.026)	1.5963 (6.015)
Incumbent's Tenure	0.0007 (0.114)	0.07575 (0.823)	0.0025 (0.577)	0.0147 (0.776)
Senate Dummy	-.3453 (0.998)	-6.4917 (1.329)	-.47717 (2.047)	0.15599 (0.142)
General Election Dummy	0.33566 (6.526)	1.5615 (1.811)	0.1226 (2.979)	-4.4633 (19.960)
Intercept	1.94659 (8.561)	27.4718 (8.459)	2.8897 (18.635)	1.2373 (1.614)
Number of Obs.=	2338	2325	2325	2338
F-Statistic or Chi Square =	3.34	126.73	27.36	1215.76
Adj-R^2 or Pseudo R^2=	.1138	.8747	.5941	.3757

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