TOOLS AND PATTERNS
OF GROWTH MANAGEMENT BALLOT
MEASURES IN CALIFORNIA
1986-2000

SEPTEMBER 2002

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ACKNOWLEDGEMENTS

The authors gratefully acknowledge the assistance of the David & Lucile Packard Foundation, the William and Flora Hewlett Foundation, and the James Irvine Foundation, who provided support for this research as part of a project on growth management ballot measures conducted by the Local Government Commission. The authors also wish to thank the Local Government Commission and especially Paul Zykovsky, director of the Center for Livable Communities at LGC, for guidance and support and for permission to adapt LGC-sponsored research for this project.

The authors also wish to thank the staff of Solimar Research Group for assisting in this research, especially Dr. Chris Williamson, Senior Research Associate, who oversaw the database coding; Jill Sourial, former Research Associate, who assisted in the coding and in much background research about growth management; and Erik Kancler, Research Associate, who assisted in data analysis and mapping.
EXECUTIVE SUMMARY

Although a few other states have seen local ballot measures from time to time, no other state has institutionalized the use of growth management ballot measures as California has. This report – the third in a series of reports by Solimar Research Group about trends in growth management ballot measures in California – focuses especially on which growth management tools appear on local ballots most frequently in California, and on the characteristics of communities where growth management measures appear on local ballots.

Our research and analysis is based on the growth management ballot measure database compiled by Solimar Research Group and California Planning & Development Report, which contains 600 measures appearing on local ballots in California between 1986 and 2000. These ballot measures were coded by Solimar and CP&DR staff for (1) geographical location, (2) date of vote, (3) pass or fail, (4) whether the measure could be characterized as "pro-growth," "slow-growth," or "neutral" in the political context of the election, and (5) the growth management tools contained in the measure.

In conducting this analysis, we made the following findings:

Trends in Growth Management Ballot Measures

- The frequency of growth management ballot measures ranged between 11 and 89 measures each year, depending largely on the economy and on whether the year was an even or odd year.
- Measures were concentrated in the coastal metropolitan areas and especially in such counties as Contra Costa, Ventura, and San Diego.
- 59% of all measures were classified as "slow-growth" measures
- Overall, 54% of slow-growth measures passed, compared with only 43% of pro-growth measures.

Trends in Growth Management Tools Used in Ballot Measures

- Voters chose from the same menu of growth management tools that elected officials use. The basic list of seven tools includes population and housing caps; commercial and industrial caps; urban growth boundaries; infrastructure adequacy; zoning; general growth management; and subsequent vote requirements.
• Over the 15-year period, general growth management tools appeared on the ballot more frequently than any other tool (30.5%). Subsequent vote requirements were the second-most frequently used (18.5%), while zoning (upzoning or downzoning) ranked third (17.6%). Infrastructure adequacy requirements, which previous research suggested ranked as the most popular tools among elected officials, appeared less frequently on ballots than any other tool (4.6%).

• General growth management and zoning were used most frequently for pro-growth purposes, whereas infrastructure adequacy, UGBs, and subsequent vote requirements were used most frequently for slow-growth purposes.

• UGBs (65.1%) and subsequent vote requirements (57.4%) had the highest passage rates statewide. Population/housing caps (35.2%) had the lowest pass rate.

• Voters in the San Francisco Bay Area were most likely to approve UGBs (82.4%) than were voters in Southern California (45.7%). Voters in Southern California were more likely to approve subsequent vote requirements (66.1%) than were voters in the Bay Area (54.8%).

• Over time, population/housing caps have become less popular, while UGBs and subsequent vote requirements have become more popular. This is true for both the measures that appear on ballots and the measures that pass.

• Cities that had stable white populations in the 1990s appeared far more likely to see slow-growth tools appearing on local ballot measures. However, cities that had a rapidly dropping white population during the 1990s appeared to use subsequent vote requirements more frequently than over cities.

**Trends in Characteristics of Communities That Use Growth Management Ballot Measures**

• The use of ballot measures among cities was significantly correlated with larger populations, a larger white population, and higher median incomes.

**Conclusions**

Based on our analysis, we came to the following conclusions, among others:

1. *Ballot measures have become deeply embedded in the political culture of the communities where they are used, but they have not migrated to many new communities since the 1980s.*

Because "ballot measures beget more ballot measures," the use of the ballot to make land-use policy decisions has become more and more common in those communities where it is already used. However, for the most part ballot-box zoning has not migrated to inland areas. Thus, we have found that two distinct political cultures have emerged regarding
land-use policy in California. In coastal areas, major land-use decisions require voter approval; in inland areas, they do not.

2. Over a 15-year period, tools associated with slow-growth elections have dominated the ballot-box zoning arena in California.

Voters have faced many more slow-growth than pro-growth or neutral ballot measures, and voters have approved slow-growth measures more frequently.

3. There is some evidence that there is a difference between the tools voters choose and the tools elected officials choose.

Earlier research found that the tool adopted most frequently by elected officials is infrastructure adequacy; however, this tool is the least popular tool with voters. By contrast, one of the most popular tools among voters – one growing in popularity – is the subsequent voter approval tool, which usurps the power of elected officials and puts more decision-making power in the hands of the voters.

4. The most popular tools used in ballot-box growth management have changed over time.

In the 1980s housing and population caps were more popular than they are now. However, since 1995, urban growth boundaries and subsequent voter approval requirements have become far more popular than ever before. These two tools are much more likely than other tools to be associated with slow-growth elections, and they are much more likely to pass.

5. Economic cycles are definitely associated with ballot measure activity.

There is more growth management ballot measure activity during healthy economic periods. Also, slow-growth measures are much more likely to pass during periods of economic boom and pro-growth measures are more likely to pass during periods of economic recovery (right after a recession). So whenever we enter the next period of economic slowdown, it will be interesting to see whether slow-growth tools such as UGBs and subsequent voter approval requirements remain popular.
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1. INTRODUCTION

Although a few other states have seen local ballot measures from time to time, no other state has institutionalized the use of growth management ballot measures as California has (Myers and Puentes, 2001). Our best estimate is that approximately 1,000 measures associated with growth management have been placed on local ballots around the state. The extent to which ballot measures are used to adopt and implement local growth management policies makes California’s system of growth management unique.

California’s ranking as the leading state in using local growth management ballot measures can be attributed in part to the absence of a statewide growth management policy. Unlike other states such as, Oregon, Washington, Florida, and Maryland, California has never passed a statewide growth management law, making its growth management system extremely decentralized. Therefore, for better or worse, growth management in California is driven by actions of the state’s 477 cities and 58 counties, which have great freedom in adopting and implementing growth management techniques. Few state requirements oversee or constrain the use of these techniques, and the localities often have little political motivation to coordinate growth management efforts with each other or examine the impact of their growth management tools on a broader geographical area.

The first growth-related ballot measures in California appeared in the 1960s (Hart, 1982). According to the best estimate, 42 measures appeared on local ballots in California during the 1970s, with the vast majority appearing on ballots in the Bay Area (Glickfeld, Graymer, and Morrison, 1987). During this period, the California Supreme Court issued a series of rulings that made it easier for citizens to place initiatives and referenda dealing with land use issues on local ballots. The critical issue in these cases was the question of which land-use decisions were “legislative” in nature – and therefore subject to the state constitution’s provisions on initiatives and referenda.¹

In 1986, at the beginning of a real estate boom, the technique of using ballot measures to manage growth appeared to take hold. More than 50 measures were placed on local ballots around the state. Since then, more than 500 additional growth management measures have appeared on local ballots around the state. The use of ballot box as a

¹ In the critical case, the Supreme Court ruled that General Plan amendments and even zone changes were legislative and therefore subject to the initiative and referendum process, whereas tract map approvals, conditional use permits, variances, and the like were administrative matters that could not go on the ballot. *Arnel Development Company v. City of Costa Mesa (1980)* 28 Cal.3d 511
mechanism to shape growth is used much less frequently than other means, such as adoption by local governing body (Glickfeld and Levine, 1992). However, there is little question that ballot measures have had a disproportionate impact on the expectations of both policymakers and the public, especially in some parts of the state.

Ballot measures typically get far more publicity than the actions of local elected officials, partly because the media feels a responsibility to inform voters about the issues they must vote. Furthermore, the threat or likelihood of a ballot measure by citizen activists can often influence how local elected officials make policy choices. One indication of the significance that ballot measures have in growth management policy in California is the attitude of local planning directors as reflected in the 1998/1999 survey by the Public Policy Institute of California and UC Riverside. In that survey, Lewis and Neiman (2000) found that 16% of the planning directors said initiatives have been “a major source of policies to slow residential development” (p. 19). That figure was 33% for the Bay Area, 13% for Southern California, and only 4% for the Central Valley. Based on this and other survey results, the authors concluded, “it is fair to say that there is a strong reservoir of support for residential growth in California’s city governments, but also that planners perceive a powerful undercurrent of resistance to new housing on the part of many residents” (p. 27).

Although there has been some documentation about the prevalence of growth management ballot measures in the state (Glickfeld, Graymer and Morrison, 1987; Glickfeld and Levine, 1992; Levine, Glickfeld, and Fulton, 1996; Fulton et al., 2000), there has been little research into the types of growth management techniques contained in these ballot measures. Moreover, even less is understood about the relative effectiveness of growth management measures adopted through the ballot measure process in managing, shaping, or distributing growth. This study provides a detailed examination of growth management techniques or “tools” placed on the ballots in California between 1986-2000.

Six hundred ballot measures are analyzed and categorized according to the tools employed. Whereas previous reports have focused on documenting the existence of ballot measures in local areas without regard to the variation among the different types of tools, we will provide a greater understanding of where and to what extent different growth management tools are used. Furthermore, we examine whether city characteristics are associated with growth management ballot measure activity and growth management tools. That is, are there distinct differences between cities who have ballot measures and those that do not? In addition, are there distinct characteristics about cities that make them more likely to adopt certain tools? Previous studies have found little evidence that growth management has measurable impacts on actual growth. The reason for this may be because these studies do not distinguish between different tools employed. Therefore, it is important to recognize the variations among growth management techniques.

1. INTRODUCTION
This paper contains the following:

1. A discussion of the evolution of growth management in the California.
2. A review of existing research on growth management in the state
3. A description of the tools typically used in growth management initiatives in California.
4. An analysis of the trends and geographic distribution of growth management tools in the state.
5. An examination of whether community characteristics are associated with the adoption of different growth management measures and tools.
2. GROWTH MANAGEMENT IN CALIFORNIA

2-1. Defining Growth Management

Growth management measures are those local government land-use policies that restrict the rate, intensity, type, and distribution of development in a jurisdiction whether adopted as an ordinance by the governing body or enacted through the initiative ballot process. “In addition to use and bulk [which is regulated by traditional zoning and land-use regulation], growth management schemes also regulate ‘timing’ and ‘sequencing’ of development within a community” (Fulton 1999, p.190).

Some authors make a strict distinction between growth controls, which limit the amount of development and restrict growth below its natural market rate (i.e. population and housing caps) and growth management measures, which regulate the quality, location, sequencing and impacts of development (i.e. infrastructure controls). For the purposes of this paper all of the tools, including growth controls, will be referred to under the broader rubric of growth management techniques. It is our belief that growth control policies usually involve elements of growth management and vice versa. However, it is useful to understand that there can be a difference between reducing the total amount of growth through a strict control on the one hand, and redistributing or mitigating it on the other.

California has made repeated attempts to adopt a statewide growth management law over the past 15 years, but so far the state has not done so. Therefore, in California, "growth management" usually refers to a set of techniques adopted by cities and counties at the local level, and that is how we will use it in this paper.

2-2. The Evolution of Growth Management in California

According to Levine, Glickfeld and Fulton (1996), there are five primary conditions that have fueled the increased use of local growth management techniques in California. They are:

- population growth
- urban sprawl
- decentralized employment
- local fiscal difficulties, and
- declines in federal and state infrastructure funding.
Most of these conditions arose in the 1960s and 1970s. When the state freeway system was completed, development began to move into suburban areas more aggressively than before, and Proposition 13 first placed a “fiscal squeeze” on local governments that had to provide infrastructure for new development. Prior to this era, Post-War construction and the building industry flourished in a pro-growth, pro-development environment. Growth was seen as necessary for economic prosperity, however, this growth machine eventually began to raise concerns over regional issues such as smog and land use patterns as well as quality of life more generally.

The origins of local growth management policies as they have come to be defined and used today in California and elsewhere can be traced back to the 1960s in Ramapo, New York. Between 1960 and 1970 the population in Ramapo more than doubled causing concern about the future of the town. With the help of prominent land-use lawyer Robert Freilich, the city developed a growth management plan with several elements that have come to form the basis for a set of tools utilized by many jurisdictions facing similar challenges:

1. **Timing and sequencing** – All development became subject to a timing and sequencing schedule that forced some landowners to wait up to eighteen years to develop their property.

2. **Linkage between timing/sequencing and the capital improvement program** – This linkage was built into a point system where, for example, developers who provided sewer systems versus septic tanks or who built in close proximity to parks were awarded higher scores.

3. Integration of planning, zoning, and the capital improvement plan – This is the equivalent to ‘consistency’ in a modern-day California general plan, with zoning and the infrastructure construction program reinforcing the growth-management concepts contained in the plan.

4. **Lower taxes for some undeveloped land** – The plan called for the purchase of development rights from owners of undeveloped land and more importantly, landowners who had sold their development rights would be taxed at a much lower rate than those who had not.

This system was innovative because it was the first time that a local government tied development approvals to the provision of public infrastructure in a way that expressly sequenced new growth in a particular geographic location. It became a legal precedent when it was upheld as constitutional by the New York State Court of Appeals (New York’s highest court).²

The integration of different planning policies—most frequently the General Plan and the zoning ordinance—became embedded in California law as the “consistency” requirements. The tax-break method is often used by California counties that participate in the Williamson Act farmland preservation program. However, the other two ideas contained in the Ramapo program—timing/sequencing and linkage between timing/sequencing and the capital improvement plan—formed the basis of many local growth management systems in California.

Around the time that the Ramapo case was being litigated, many small communities in California, especially in the Bay Area, were experiencing high levels of growth because the opening of new freeways essentially converted them from independent towns into suburbs of larger cities. In the early ‘70s, many of these cities began to search for ways to control or manage this new residential growth, and so they followed Ramapo’s example.

The first and most famous of these cities was Petaluma, along Highway 101 in southern Sonoma County. From 1972 to 1977, the city imposed “a cap of 500 housing units per year and an allocation system that awarded those units to builders who met criteria for both aesthetics and public services” (Fulton 1999, p.189). The cap applied to all housing units that were part of projects involving five or more units and thus did not apply at all to housing growth resulting from single-family homes not part of a larger project. These restrictions were challenged in court but later upheld as a proper exercise of police power and have since become widespread throughout California. The idea of a housing “cap”—along with a competition or “beauty contest” to allocate the building permits—became a core component of growth management in many suburban communities in California.

As time went on, other, more sophisticated concepts were introduced, and the idea of growth management spread to more parts of the state. For example, in the 1970s, under the leadership of Mayor Pete Wilson (and with the assistance of Robert Freilich), the City of San Diego implemented a “tier” system of growth management. This system divided the city into three categories—urbanized area, planned urbanized area, and future urbanizing area, which basically were the equivalent of urban, suburban, and rural designations (Fulton, 1999). To discourage development in the rural area, developers were required to fully pay the cost of infrastructure if they wanted to develop. This was combined with tax incentives under the Williamson Act, which provides tax breaks for farmland preservation for landowners who maintain their land for agricultural use. Finally, to encourage infill development, fees were waived in the urban area. In hindsight, it appears as if this plan worked too well, because developers took advantage of the waived fees to build in the urbanized area to the point where the city suffered from a lack of infrastructure in this inner core.

Over time, some cities and counties began to combine different growth management tools into a package that sought to link timing, sequencing, and infrastructure. Most such attempts were implemented as growth management elements to the local general plan. One good example was the growth management system implemented by the City of
Carlsbad, in San Diego County, in the 1980s. The system did not include an annual “cap” on residential building permits, but it did include an overall “cap” for the 20-year life of the general plan. The growth management system designated the sequence of development, as Ramapo did, and also permitted development only when infrastructure was already available. New development was also expected to pay for the new infrastructure, and a fiscal component laid out a plan for each residential unit and how much it would pay in the form of impact fees.

Housing and population caps have probably received the most publicity over the years, but they have not been the most popular (Glickfeld and Levine, 1992). Rather, the most popular techniques have been downzoning, and adequate public facilities ordinances (essentially, infrastructure requirements), all of which have been used 20-30% of the time. By contrast, housing and population caps have been put into place only about 10-12% of the time.

In addition, housing and population caps appear to have declined in significance in recent years. Many communities that imposed them in the past – especially in the Bay Area and the outlying counties in Southern California – have more recently imposed urban growth boundaries as an additional measure.

2-3. Growth Management in Context

Even though it appears that the growth control/management machine has taken hold of municipalities throughout California, many places continue to promote growth. Furthermore, even places that have stringent growth control measures in place may also have other policies that promote growth or certain kinds of growth, such as affordable housing. Glickfeld et al.’s (1999) study of growth governance in Southern California finds that, “Most sub-regions in Southern California – even those with strong Growth Management policies and considerable growth pressure – emerge as having a Growth Promotion orientation” (p.33). Therefore, it is important to realize that although anti-growth regimes have gained much more attention and have caused much more controversy in the recent past, anti-growth is not the prevailing framework within which most municipalities view future development.

In fact, Lewis and Neiman (2000) maintain that most municipalities work to make the development process less cumbersome and more efficient. Their survey of city planners in the San Francisco Bay Area, Southern California, and Central Valley regions reveals that most cities in these regions appear to be streamlining their review process for new housing development. In addition, most cities do not have stringent policies (i.e. requiring supermajority vote of city council or planning commission for zoning changes, changing zoning from residential to other uses, housing caps, moratoriums, etc.) that limit the amount of housing. A greater number of cities use more flexible approaches, such as design review standards, that attempt to meter the pace of growth or distribute...
development to more desirable areas. According to Lewis and Neiman, most city planning agencies and elected government officials support growth in their localities.

Lewis and Neiman attribute much of the popularity in using the ballot box for land use issues to residents’ opposition to residential development. We would argue that other growth management measures – those adopted through local ordinances or placed on the ballots by elected officials – are often a response to residents’ concerns over the changes in their communities. Thus, the story of ballot box planning in California is a story about residents’ unease with the way their lives are being affected by growth. Moreover, it is a reflection of increasing citizen awareness and activism regarding issues related to their local environments. Whether or not ballot measures are an effective means to mold growth remains a question that is largely unknown, but what is known about this topic will be discussed in the following section.

2-4. Previous Studies of Growth Management in California

The use of the ballot box as a mechanism to manage growth has been a relatively new phenomena in California. It began in the San Francisco Bay Area and can now be seen in all parts of the state, especially in the rapidly growing places, such as Los Angeles, Orange, Riverside, and San Diego counties as well as the coastal region. The accelerating use of ballot measures around the state has made policy makers and academics interested in why this mechanism has become so popular. More specifically, what are some distinguishing characteristics of communities that adopt growth control measures? They have also begun to question what measurable effects these ballot measures have on various types of growth outcomes, such as population and housing growth, housing prices, commercial/industrial development, housing spillover, and sprawl.

A series of studies have documented the existence and trends in growth management measures in California. Some of the studies focus exclusively on ballot measures adopted through the ballot-box process (Glickfeld, Graymer, and Morrison 1987; Fulton et al. 2000) while others also include both ballot measures adopted through the ballot box as well as by local officials (Glickfeld and Levine 1992; Levine, Glickfeld, and Fulton 1996; California Department of Housing and Community Development 2000; Joassart-Marcelli, Fulton, Musso 2001; Landis, Deng, and Reilly 2002). Although our study only examines growth management ballot measures and tools adopted via the ballot-box process, our literature review includes studies that include measures adopted by both processes.

The pioneer study in this area, Glickfeld, Graymer, and Morrison (1987), identified the frequency and geographic distribution of local land use ballot measures for the period between 1971 and 1986. Using the California Association of Realtors records on local ballot measures and cross checking it with city clerks and county registrars offices, they identified 152 local land use ballot measures during this period. They found that the use of the ballot initiative process was sparse at first, but rose over time with a dramatic spike.
in 1986. That year, there were three times more land use ballot measures than any previous year, suggesting that the use of the ballot initiative process was gaining momentum. Of the four types of ballot measures they examined (e.g. initiative petitions, board or council-sponsored measures, referenda, and advisory initiatives) the large majority of them (70%) were initiative petitions. Furthermore, their analysis revealed that there was a large geographic concentration of ballot measures in Northern California between 1971-1980 and a growing number in Southern California and the Central Coast in the years following. Local land use ballot measures were rarely found (only 4%) in the inland Central counties.

In a second study, Glickfeld and Levine (1992) inventoried the number of growth management techniques currently employed by local jurisdictions by surveying all cities and counties in the state from 1988-1989. They achieved an 87% response rate with all 57 counties and 386 cities responding. In this study, they examined growth measures enacted by local governing bodies and through the ballot-box process. This study was the first attempt to categorize the different types of ballot measures according to the type of technique used. They created 14 growth ballot measure types\(^3\) and asked respondents from each jurisdiction to list any of the types found in their jurisdiction. With a tally of the types of growth measures found in each jurisdiction, Glickfeld and Levine analyzed the rate and geographic distribution of the different types of growth management measures. They also tested the association between community characteristics and the adoption of growth measures.

Reaffirming findings from the previous study, Glickfeld and Levine reported increasing numbers of growth management ballot measures over time. Among their findings were the following:

- Over 70% of all cities and counties in the state had at least one growth measure enacted.
- Their inventory documented a scattering of that growth management measures throughout the entire state.
- They discovered that jurisdictions that had larger populations and higher median incomes were more likely to enact growth measures.
- The average population size of a community with growth measures was 71,653 and the average income was $13,278 (in 1987). This was compared to an average population size of 37,160 and average income of $12,433 for communities without growth measures.

\(^3\) The types include: 1.) population growth caps 2.) housing permit limitations 3.) residential infrastructure requirements 4.) residential downzoning 5.) required voter approval for upzoning 6.) required council majority for upzoning 7.) rezoning residential land to a less intense use 8.) commercial square footage limitations 9.) industrial square footage limitations 10.) commercial/industrial infrastructure requirements 11.) rezone commercial/industrial land to a less intense use 12.) commercial building height limitations 13.) growth management element of the general plan and 14.) urban limit line or greenbelt.
The types of ballot measures that were most commonly found in jurisdictions were residential infrastructure requirement, residential downzoning, restrictions on commercial/office building heights, and commercial/industrial infrastructure requirements.

This last result is interesting because these measures are considered more moderate, less controversial and garner less political attention than other measures, such as population or housing caps. These moderate measures are more often geared towards shaping the pace, timing, and quality of growth and development rather than halting development altogether. These moderate types of growth management strategies resemble the types of techniques found in what has come to be known as the “Smart Growth” movement, whose proponents acknowledge that growth must occur somewhere and encourage communities to manage growth rather than control it.

Surprisingly, Glickfeld and Levine did not find any statistically significant association between community characteristics and frequency of growth measures. In other words, there were no distinguishing characteristics between communities that had growth measures and those that did not. Instead, Glickfeld and Levine conclude that the use of growth measures is becoming common in all types of communities throughout the state. They also did not find any evidence that population or housing growth was correlated with the enactment of growth measures at the local level. There was, however, a strong positive association between statewide commercial and industrial construction and growth management ballot measures, suggesting that the enactment of local growth measures are a response to regional rather than local growth. Finally, Glickfeld and Levine explored the ramifications of growth measures on residential and non-residential construction activity at the state, metropolitan, and county levels. At all geographic levels, there was little support to show that growth measures slowed down construction activity. In fact, they found that growth management measures were significantly correlated with increases in non-residential construction in several metropolitan areas including Los Angeles and San Francisco.

In 1992, Glickfeld and Levine conducted a follow-up survey of 465 California jurisdictions, a response rate of almost 90%. In addition to the 15 tools on the 1988 survey, they added three more, including phased or tiered development, restrictions on the number of subdivided lots, and restrictions on the floor-area ratio for building permitted on a commercial or industrial parcel.

The two surveys are not directly comparable, because they did not cover exactly the same jurisdictions (approximately 410 jurisdictions responded both years; the rest were different each time), and three measures were added to the survey. Nevertheless, the survey did document a significant increase in the number of growth management tools in place between 1988 and 1992.
Overall, the 1992 survey found 1,461 growth management tools in place in jurisdictions around the state, an increase of 554 (61%) from 1988. About half of this increase (269) was accounted for by the three additional types of tools covered by the 1992 survey. Among those tools included in both the 1988 and 1992 surveys, Glickfeld and Levine found an increase of 285, or 31.4% (see Figure 1.)

In numerical terms, most of this increase came in the areas of zoning and infrastructure adequacy. These were already the most popular tools in 1988, yet their frequency grew by 50% between 1988 and 1992. In 1992, Glickfeld and Levine found 356 infrastructure adequacy tools in place (24% of the total) and 291 zoning tools (19.9%). These tools were in place in 35% to 40% of all California jurisdictions.

Some less popular growth management tools also showed substantial increases between 1988 and 1992, including commercial and industrial square footage limitations, which (combined) increased from 27 to 45, an increase of 66.7%.

Interestingly, however, several high-profile tools that are widely associated with controlling growth were not commonly used in either 1988 or 1992 and did not increase much in their use between 1988 and 1992. These included housing/population caps (up 10%, from 90 to 99); UGBs (up 8.9%, from 79 to 87); and voter requirements (up 16.7%, from 30 to 35).

The 1992 study also revealed several important regional differences in the frequency of use. In addition to describing these patterns, the Glickfeld/Levine surveys conducted a factor analysis in order to determine if certain measures were more likely to be adopted in combination with others or, conversely, if the adoption of a particular type of measure usually precluded the adoption of another. A positive factor score between categories (using the 7 categories outlined at the beginning of the paper – population, infrastructure, floor space, zoning, political, general, and vacant land) indicates that they tended to occur in conjunction with one another.

The differences between these two surveys are summarized in Figure 1.
## Figure 1. Comparison of 1998 and 1992 UCLA Survey Findings

<table>
<thead>
<tr>
<th>Category</th>
<th>Tools</th>
<th>% of Total Tools</th>
<th>% of Jurisdictions</th>
<th>Difference, 1988-1992</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing/Population Caps</strong></td>
<td>90</td>
<td>9.9%</td>
<td>99</td>
<td>9</td>
</tr>
<tr>
<td>Housing Caps</td>
<td>50</td>
<td>5.5%</td>
<td>59</td>
<td>9</td>
</tr>
<tr>
<td>Population Caps</td>
<td>40</td>
<td>4.4%</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td><strong>Commercial/Industrial Caps</strong></td>
<td>139</td>
<td>15.3%</td>
<td>370</td>
<td>231</td>
</tr>
<tr>
<td>Commercial Square Footage Limitations</td>
<td>14</td>
<td>1.5%</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>Industrial Square Footage Limitations</td>
<td>13</td>
<td>1.4%</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Commercial Building Height Limitations</td>
<td>112</td>
<td>12.3%</td>
<td>125</td>
<td>13</td>
</tr>
<tr>
<td>FAR Restrictions</td>
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<td>13.7%</td>
<td>200</td>
<td>0</td>
</tr>
<tr>
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<td>79</td>
<td>8.7%</td>
<td>150</td>
<td>71</td>
</tr>
<tr>
<td>Urban Growth Boundaries</td>
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<td>8.7%</td>
<td>86</td>
<td>7</td>
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<tr>
<td>Phased Development</td>
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<td>4.4%</td>
<td>64</td>
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<tr>
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<td>237</td>
<td>26.1%</td>
<td>356</td>
<td>119</td>
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<tr>
<td>Residential Infrastructure Requirements</td>
<td>129</td>
<td>14.2%</td>
<td>190</td>
<td>61</td>
</tr>
<tr>
<td>Commercial/Industrial Infrastructure Requirements</td>
<td>108</td>
<td>11.9%</td>
<td>166</td>
<td>58</td>
</tr>
<tr>
<td><strong>Zoning</strong></td>
<td>193</td>
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<td>291</td>
<td>98</td>
</tr>
<tr>
<td>Residential Downzoning</td>
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<td>160</td>
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<td>Residential Rezoning</td>
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<td>39</td>
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<td>93</td>
<td>42</td>
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<tr>
<td>Subdivided Lot Restrictions</td>
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<td>4.5%</td>
<td></td>
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<tr>
<td><strong>Vote Requirements</strong></td>
<td>30</td>
<td>3.3%</td>
<td>35</td>
<td>5</td>
</tr>
<tr>
<td>Voter Approval</td>
<td>19</td>
<td>2.1%</td>
<td>24</td>
<td>5</td>
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<tr>
<td>Supermajority Requirement</td>
<td>11</td>
<td>1.2%</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>88</td>
<td>9.7%</td>
<td>67</td>
<td>-21</td>
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<tr>
<td>Other Measures</td>
<td>88</td>
<td>9.7%</td>
<td>67</td>
<td>-21</td>
</tr>
<tr>
<td><strong>Total Measures</strong></td>
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<td></td>
<td>1461</td>
<td>554</td>
</tr>
<tr>
<td><strong>Total Jurisdictions</strong></td>
<td>443</td>
<td></td>
<td>465</td>
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</tbody>
</table>
The results of this study provided some additional insight into the changing nature of growth management measure activity. First, although all regions in the state had a greater number of measures per jurisdiction in 1992 than in 1988, the Central Coast became the leader in average number of ballot measures enacted. By 1992, the jurisdictions on Central Coast had an average of 4.5 measures enacted, the San Francisco Bay region had 3.6, the Sacramento region had 3.5, and the South Coast region (e.g. Los Angeles, Orange, and San Diego counties) had roughly 2.0 measures per jurisdiction. There continued to be little activity in the Southern Inland and Eastern regions of the state.

This period also saw a different emphasis on the types of growth measures enacted. Whereas population control and residential downzoning were popular in earlier periods, this later period saw a dramatic increase in the use of infrastructure adequacy requirements for both residential as well as commercial or industrial development. In 1992, infrastructure adequacy requirements for residential development existed in 41% of jurisdictions and similar requirements for commercial/industrial development were found in 36% of jurisdictions. This is most likely a response to the decrease in state and federal funding for infrastructure.

Unlike the earlier study which found no relationship between community characteristics and the enactment of growth measures, this study found that increases in the percentage of college educated residents, growth in levels of home ownership, increases in median home values, and reductions in the percentage of rental housing between 1980-1999 were highly correlated with increases in the enactment of growth measures. Furthermore, the results revealed that communities that were wealthier, had a younger housing stock and a larger number of whites in 1990 were more likely to have growth measures in place.

These results point to potential exclusionary practices among communities that may be viewed as more desirable places to live. Or, it may just be that these educated wealthier communities tend to be more active in shaping the future of their communities. More work in this area needs to be conducted in order to understand why certain types of communities use the ballot box more often than others to shape land use.

Obtaining more community level data and employing better statistical techniques than previous studies, this study was able to detect reductions in housing growth in areas that have growth measures. The results estimated a decrease of 387 housing units per jurisdiction for every growth measure enacted between 1977-1986. Furthermore, the measures that were most significant in reducing number of housing units include permitted residential densities by general plan amendment or rezoning, growth management element in general plan, rezoning vacant land previously designed for residential development to agricultural or open space development, restrictions on commercial development square footage in a given time period, and restrictions on the number of new subdivision lots in a given time period. Not only was existence of growth measures correlated with reductions in housing units, but it was also associated with
greater housing development on the urban periphery. This suggests that growth measures may play a role in exasperating urban sprawl. The researchers also attempted to find patterns of spillover, that is, development occurring in areas that do not have growth measures but that are adjacent to those with growth measures. They found no evidence that spillover is occurring.

In 1998, researchers at the University of California, Berkeley (UCB), working in cooperation with the California Department of Housing and Community Development (HCD), conducted a survey of California local governments that replicated some aspects of the 1988 and 1992 surveys by Glickfeld and Levine. The UCB/HCD survey covered 322 cities and 48 counties, or approximately 65% of the state’s local government jurisdictions. The survey asked these jurisdictions about growth management tools adopted between 1995 and 1998, including most of the tools covered in the 1988 and 1992 surveys.

Overall, the UCB/HCD survey found that local governments had not adopted a large number of growth management tools during this period, which immediately followed a recession. Furthermore, as Figure 2 shows, the survey found that most of the tools adopted during this period dealt with zoning (including “upzoning”) of property and annexations (which the UCLA surveys had not covered). Few new tools associated with strict growth control were adopted, including housing and population caps, urban growth boundaries, and voter requirements. It is fair to conclude that by the mid 1990s, the overwhelming majority of California local governments had adopted some form of growth management.

The UCB/HCD survey did find regional differences in growth management regimes. As the authors concluded in their report to HCD: “Among regions, cities in Northern California were slightly more likely to have enacted annexation restrictions, urban growth boundaries, residential APFOs [infrastructure adequacy requirements] and general plan growth management elements than cities in other California regions. Hoping to attract rather than impede growth, cities in the Central Valley were significantly more likely to have engaged in upzoning or to have annexed land for development; they were also more likely to have increased residential development fees.” (HCD, 2000.) The size of cities was not found to be a significant factor, though a city’s population growth rate did matter; fast-growing cities were more likely to have engaged in zoning changes, while slow-growth cities were more likely to have adopted classic growth management tools such as a residential infrastructure ordinance or a vote requirement.
### Figure 2. 1998 UCB/HCD Survey Results: New Growth Management Tools Adopted Between 1995 and 1998

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
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<tr>
<td></td>
<td>Number of Tools</td>
<td>% of Total</td>
<td>% of Jurisdictions With Tool</td>
<td>Cities</td>
<td>% of Total</td>
<td>% of Jurisdictions With Tool</td>
<td>Counties</td>
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<td>2.2%</td>
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<tr>
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<td>25</td>
<td>8.4%</td>
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<td>9.0%</td>
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<td>1.3%</td>
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<td>Infrastructure Adequacy</td>
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<td>3</td>
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<td>3.7%</td>
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<td>20.5%</td>
<td>10</td>
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<td>7.8%</td>
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<td>10.3%</td>
<td>7.5%</td>
<td>5</td>
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<tr>
<td>Residential Rezoning</td>
<td>29</td>
<td>9.8%</td>
<td>7.8%</td>
<td>24</td>
<td>10.3%</td>
<td>7.5%</td>
<td>5</td>
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<tr>
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<td>0.0%</td>
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<td>0.0%</td>
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<td>Upzonings*</td>
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<td>2.7%</td>
<td>11</td>
<td>4.7%</td>
<td>2.7%</td>
<td>1</td>
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<td>Growth Management Element</td>
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<td>4.0%</td>
<td>3.2%</td>
<td>11</td>
<td>4.7%</td>
<td>3.4%</td>
<td>1</td>
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<tr>
<td>Vote Requirements</td>
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<td></td>
<td></td>
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<tr>
<td>Voter Approval</td>
<td>7</td>
<td>2.4%</td>
<td>1.9%</td>
<td>5</td>
<td>2.1%</td>
<td>1.6%</td>
<td>2</td>
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<tr>
<td>Supermajority Requirement</td>
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<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0</td>
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<tr>
<td>Other Measures</td>
<td>116</td>
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<td>45.7%</td>
<td>107</td>
<td>39.1%</td>
<td>45.7%</td>
<td>9</td>
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<tr>
<td>Annexation Restrictions*</td>
<td>4</td>
<td>1.3%</td>
<td>1.1%</td>
<td>3</td>
<td>1.3%</td>
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</tr>
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<td>Annexations*</td>
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<td>24.6%</td>
<td>87</td>
<td>37.2%</td>
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<td>21</td>
<td>7.1%</td>
<td>5.7%</td>
<td>17</td>
<td>7.3%</td>
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<td>4</td>
</tr>
<tr>
<td>Total Measures</td>
<td>297</td>
<td>100%</td>
<td>100%</td>
<td>234</td>
<td>100%</td>
<td>100%</td>
<td>33</td>
</tr>
</tbody>
</table>
In a study by the Solimar Research Group, Fulton et al. (2000) compiled a database of ballot measures that were adopted exclusively through the ballot box. They did not include growth measures that were enacted by local governing bodies. Their database included 660 growth management measures that were on the ballots between 1986-2000. In addition to looking at the frequency and geographic distribution of ballot measures, they separated the data into 5-year periods in order to determine whether economic cycles in the state influences the rate of growth measure activity. The first and last 5-year periods, 1986-1990 and 1996-2000, were times of economic boom in California while the middle period, 1991-1995, was a period of economic recession. Their study also includes the categorization of growth measures according to whether they were pro-growth, slow-growth, or neutral and an analysis of trends for each category.

The Solimar study reveals that fluctuations in ballot measure activity coincide with statewide economic cycles. There are fewer numbers of growth measures in the recession period and greater numbers in the boom periods. In the period between 1986-1990, there were an average of 65.5 ballot measures annually and an average of 41.6 between 1996-2000. In the recession period, there were only an annual average of 24.8 ballot measures. Slow-growth measures outnumbered pro-growth measures in the period up to 1993 and in the years thereafter, pro-growth measures appeared just as often or exceeded the number of slow-growth measures (with the exception of the year 2000). In addition, slow-growth measures were more likely to pass in earlier years than in later years. There was a 10% reduction in rate of passage for slow-growth measures over the 15-year period from 60% in the earlier period to 50% in the later period. In contrast, there was an increase in the passage of pro-growth measures. These results suggest that the slow-growth climate in the state is slowing down and perhaps jurisdictions are using less stringent measures to manage growth. This is consistent with results from previous studies that show that more stringent types of growth management measures, such as population caps and voter approvals for land use changes are used less common in later years. An exception to this is the increasing adoption of Urban Growth Boundaries and SOAR\textsuperscript{4} -like initiatives that mandate that local urban growth boundaries can not be changed without a vote. Fulton and colleagues find that the majority of ballot measures of this nature were enacted between 1995-2000 and of the 25 measures that were placed on the ballots, 24 of them passed.

Realizing that the frequency of growth management policy adoption fluctuates during different economic cycles, a subsequent study, Joassart-Marcelli, Fulton, and Musso (2001), investigates the motives behind growth management policy adoption in two distinctly different economic periods, 1989-1992 and 1995-1998. The authors investigate whether cities in California are motivated by environmental concerns, exclusionary tendencies or fiscal incentives when they adopt growth management policies. They argue

\textsuperscript{4} Save Our Agricultural Resources (SOAR) was a measure placed on the ballots in Ventura County to create urban growth boundaries around each city and protect farmland and open space in unincorporated areas. Neither the growth boundaries nor rural zoning can be altered without a vote.
that if policy adoption is motivated by environmental concerns, cities that are growing in population and densifying over time should be more likely to adopt growth management policies. On the other hand, if policy adoption is motivated by the desire to exclude certain populations or to enhance the locality’s fiscal condition, then cities that are wealthier and more homogeneous controlling for population growth should be more likely to adopt growth policies. In addition, if the incentive for the adoption of policies is truly due to fiscal conditions, then there should be more policy adoption in times of economic recession.

The regression results revealed that between 1989-1992, a period in which the state was experiencing economic growth and expansion, the adoption of growth management policies was not motivated by socioeconomic characteristics or fiscal concerns of cities, but rather exclusionary practices. In this period, suburban cities that were experiencing slower rates of population growth, had higher rates of homeownership and fewer overcrowding problems tended to be more likely to have growth management policies. In the second period, the recessionary period, cities with higher poverty rates, greater unemployment rates, and were receiving larger proportions of their revenues from sales tax were least likely to adopt growth management policies. This is not surprising considering that these types of cities are most in need of improvements that may be stimulated by growth. More interesting is the finding that cities that have a greater proportion of non-white population in this period were more likely to adopt growth management policies, perhaps signaling a fear of unwanted demographic change. Again, these results provide indication that the adoption of growth management techniques may be motivated by desires to exclude certain populations.

There has been considerable debate over the effect of growth policies on actual growth and housing prices. Landis (1992) conducted a case study of seven cities that have adopted stringent growth control policies in the late 1970s or 1980s. He compared each of the seven cities with another city with a similar community profile but does not have a growth control/management orientation. The study reveals that housing growth in cities with growth control policies was only marginally lower than expected. In some growth control cities, housing was not restrained at all. The author posits three reasons why housing in growth control cities is not constrained as much as expected. First, growth control policies are often put in place after periods of rapid growth and therefore are not terribly restrictive if measured by standards of growth found in normal periods. Second, there are different ways for savvy developers to get around the growth policy. Lastly, failure to implement the growth policies correctly can make them ineffective.

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5 He does not mention how the growth control policies in his study are adopted. Therefore, it is not clear whether these policies were adopted through the ballot box process or by other means.
Contrary to what economic theory would predict, Landis did not discover housing price inflation in areas that adopt growth controls. Housing prices were neither higher nor did they increase faster in growth control cities as compared to cities without growth controls. He suggests the reasons for this are:

1. The controls may not have been implemented correctly.
2. Housing may spillover into adjacent areas that do not have growth controls and therefore housing supply is not constrained.
3. Regional or state level factors may influence housing prices more than local factors such as local growth control.

The inability to find effects of growth control, even in cities with stringent policies, raises questions about the effectiveness of growth policies.

An alternate reason why there may have been no measurable effects of growth controls in the study is that the type of growth policies may have varying effects on different measures of growth. This study did not differentiate between the type of growth control. In a follow-up study, Landis, Deng, and Reilly (2002), reexamined the effectiveness of growth management policies on actual levels of population and housing growth, housing prices, and the spatial distribution of growth. One significant difference in this study is that the researchers differentiated between the type of growth management technique used in the growth control cities examined. They compared cities that had the following types of growth management techniques in place: annual housing caps, residential adequate public facilities ordinances (APFOs), urban growth boundaries (UGBs), annexation limits, and voter-enacted supermajority approval requirements with “matched” cities that did not have these growth management techniques.

Disaggregating the type of growth management policy allowed for a richer understanding of the dynamics between growth policies and growth outcomes. Contrary to the previous study, this study found that certain types of growth management techniques indeed affect growth. Furthermore, different techniques have varying effects on specific types of growth. For example, the researchers found that residential caps, annexation controls, and voter-enacted supermajority approval requirements constrain population growth. Surprisingly, there was only one growth management technique, voter-enacted supermajority approval requirements, that was associated with a lag in housing production. Cities with residential APFOs actually had a higher rate of housing production than cities without, suggesting that APFOs may facilitate the construction of housing rather than inhibiting it. According to the authors, as economic theory would suggest, cities in which housing supply lags behind housing demand tend to have higher housing prices, all else being equal. Finally, the study found that housing caps and UGBs are the two techniques that are associated with housing spillover.

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6 Cities are matched according to size and location.

2. GROWTH MANAGEMENT IN CALIFORNIA
This review of the existing research on growth management in California provides an up-to-date look on the current state of knowledge. The following is a summary of the most important findings:

- Growth management ballot measures appear in every region of the state.
- The rise in the use of the ballot-box process can be attributed to increasing citizen involvement in local land use issues.
- Large numbers of growth ballot measures are concentrated in areas that are experiencing tremendous growth pressures including the San Francisco Bay, Southern California, and the Central Coast regions.
- Growth management ballot measure activity appears to coincide with state economic cycles, increasing in times of prosperity and economic growth and decreasing in recession periods.
- There is evidence that the adoption of growth management policies are motivated by both fiscal incentives and exclusionary purposes.
- There is great uncertainty about whether growth measures are effective at slowing growth. Certain types of growth management technique may have differential effects on growth.
- Growth management policies may have be associated with housing spillover and/or sprawl.
- Unless California adopts a statewide growth management initiative, the use of “ballot box planning” in California is not going to disappear any time soon.
3. METHODS USED IN THIS RESEARCH PROJECT

3-1. The Solimar Database

As discussed in the literature review above, much of the work to date has focused on the prevalence of growth management policies without regard to the differences in the tools employed. This study is the first attempt to take a comprehensive examination of the tools found in local growth management ballot measures in the state. This paper will provide a description of the tools typically used in growth management initiatives in California, an analysis of the trends and geographic distribution of growth management tools in the state, and an examination of whether community characteristics are associated with the adoption of different growth management measures and tools.

In order to do so, we compiled a database of 600 growth management measures that appeared on local ballots around the state between 1986 and 2000. Up to this point, there has been no single comprehensive database on growth management ballot measures in California, so it has been difficult to obtain a clear picture of what the statewide trends in ballot measures are. This database, which will be called the Solimar database hereafter, will be the basis for our analysis.

This Solimar database is a combination of the database compiled by the California Association of Realtors (CAR) between 1986 and 1992 and the database compiled on a running basis since 1986 by California Planning & Development Report (CP&DR). It is not comprehensive, as it emphasizes ballot measures that appeared on June and November ballots and does not comprehensively include ballot measures that appeared on special election ballots at other times. However, it probably includes most growth management ballot measures appearing on local ballots in California during this period.

The Solimar database includes the jurisdiction where the election was held; the date of the election; and the final vote count, so it was possible to code specific ballot measures by “pass” and “fail.” In addition, the Solimar database includes two other important pieces of information for every ballot measure: whether it was a “pro-growth” election, a “slow-growth” election, or a neutral election; and which of the seven growth management tools described below were included in the ballot measures.

The “pro/slow” election is a judgment made by the editors of CP&DR at the time of the election, based not only on the actual content of the ballot measure but also the electoral context within which the election took place. These judgments were made on a running basis beginning in 1986 and confirmed by the editors during the summer and fall of 2000.
The tools were included in the database by the Solimar staff in the summer and fall of 2001. In most cases, this information was obtained from the actual ballot measure language and/or from the ballot pamphlet descriptions ordered from city and county clerks offices. In some cases prior to 1992, descriptions contained in the California Association of Realtors database were used as the basis for coding.

In refining the database for this analysis, Solimar and CP&DR staff also pared the database down to measures including planning and regulatory tools only. A previous Solimar analysis was based on 660 measures, including some measures involving funding of open space and infrastructure. These measures were removed from the database for the current analysis. After they were removed, 600 measures remained.

3-2. Categories of Growth Management Tools

From their two surveys of California growth management, Glickfeld and Levine compiled a list of 17 different growth management techniques, which they later collapsed into seven tools. (Glickfeld and Levine 1992; Levine, Glickfeld, and Fulton, 1996.) Since that time, virtually all other expert researchers in the field of California growth management used these 7 tools and 17 techniques as a basis and, in general, did not deviate from this list (Landis, 1992; Pendall, 1995; Warner and Molotch, 2000).

Based on this literature and our own knowledge of the field, we believe that the universe of growth management tools commonly used in California still consists of these 7 general categories of tools and the 17 specific techniques. We have renamed the 7 tool categories to reflect current lexicon and coded each of the 600 ballot measures in our database according to these categories of tools. They are:

1. Housing/population caps
2. Commercial/industrial caps
3. Urban growth boundaries
4. Infrastructure adequacy requirements
5. Zoning
6. General Growth Management
7. Voter Requirements

There are a total of 763 tools in the database, or an average of 1.27 tools per measure.
3-2-1. Housing/Population Caps

A. Population Growth Caps
Population growth caps establish a population growth limit or restrict the level of population growth for a given time period. These are usually implemented by restricting the number of housing units permitted for construction.

B. Housing Permit Limitations
Measures that restrict the total number of residential building permits in a given time period.

As we will explain below, population and housing controls are the “grandaddies” of growth management in California. They were first imposed in growing suburban communities in the 1970s to meter the rate of growth per year – either to prevent the community from being overwhelmed or to help calibrate new residential growth with infrastructure construction. Although population growth caps purport to control the actual number of people in a community, in point of fact both population and housing caps seek to manage growth by restricting and controlling the number of housing units in a community. (Population caps limit housing construction through the use of assumptions about how many people, on average, will live in each housing unit.) Population and housing caps were popular in the 1970s and ‘80s but they have not spread to very many new communities in the last decade.

3-2-2. Commercial and Industrial Caps

A. Commercial Square Footage Limitations
Measures to restrict the amount of square footage of commercial structures that can be built within a given time frame.

B. Industrial Square Footage Limitations
Measures to restrict the amount of square footage of industrial structures that can be built within a given time frame.

C. Commercial Building Height Limitations
Measures enacted within the last five years to restrict the permitted height of commercial buildings. Restricts the structural floor area that can be built on a given parcel (floor-area ratio).

These are the non-residential equivalents of the population and housing controls described in Section A. above. Implicitly, of course, these types of measures restrict the built space available for employment and retail transactions, just as limiting housing.
construction limits population. Although many communities in California have adopted controls on population and housing, relatively few have adopted restrictions on the amount of non-residential development. (Many have adopted height limits.) The tool most often used to restrict non-residential growth is the floor-area ratio or FAR. The floor area ratio or FAR refers to the ratio of gross building floor area to the net lot area of the building site. The floor area ratio was developed as a more refined and adaptable measure of intensity than building coverage. It expresses in one measure, instead of several, the mathematical relation between volume of building and unit of land. FAR, however, cannot replace more traditional bulk controls entirely. Often it is not a sufficient height control nor does it regulate the placement of the building on the site.

**3-2-3. Urban Growth Boundaries**

**A. Urban Growth Boundary (UGB), Urban Limit Line, Urban Service Boundary, Or Greenbelt**

A limit, inside of and other than the boundaries of the jurisdiction, beyond which residential, commercial, or industrial development is not currently permitted.

**B. Phased Development**

Phased (or tiered) development areas where development approval is deferred until a certain time period or until existing developed areas are substantially developed.

Urban growth boundaries and related tools have become increasingly popular in the last 10 years, especially in certain counties in the Bay Area and along the coast. Simply put, these boundaries seek to limit urban growth to specific geographical areas through regulatory restrictions and/or limitations on infrastructure expansion.

Although these tools have become more important in recent years, there is great variation around the state in the definition of what is “urban” and what is “rural”. In some cases, non-urban land uses must involve parcels 40 to 320 acres in size – that is, parcels for which farming, ranching, and other rural economic uses are viable. In other cases, non-urban land uses can be as small as one acre in size – that is, any use that does not require a sewer and water hookup.

Definitions of terms related to UGBs:

*Urban Growth Boundary* – The line on a map that is used to mark the separation of urbanizable land from rural land and within which urban growth should be contained for a period of time specified by a growth management program.

*Urban Growth Area* – An area in which urban growth shall be encouraged and outside of which growth can only occur if it is not urban in nature. Urban growth areas are based on the population forecast and shall include areas and densities.
sufficient to permit the urban growth that is projected to occur for a specified period.

*Urban Service Area* – An area in which urban services will be provided and outside of which such services will not be extended.

*Urban Reserve* – An area outside of an urban service area but within an urban growth boundary in which future development and extension of services are planned. The urban service area and urban reserve combined, in many places, constitute the urban growth area. Also called Future Urbanized Area.

In the simplest case, a phased development system prohibits development in areas that lack sewers or some other basic public service. In more sophisticated systems a combination of services must be available before development is permitted – and the local planning policies may lay out a system of geographically sequencing new development to conform with plans for infrastructure construction. Often the developer may, at their own expense, supply services that are lacking. The number of building permits issued may be subject to a quota, with preference given to proposals that meet public goals by providing good design, open space, public amenities or low-cost housing. Some uses such as nonresidential development or housing for the elderly, may be exempt from the controls.

Phased development controls can slow growth to allow municipalities to budget expenditures for expansion of municipal services to developing areas over a longer time period. Slower growth can prevent the overburdening of existing facilities while new ones are being constructed. Phasing can also encourage growth near existing build-up areas, thus helping to reduce sprawl.

**3-2-4. Infrastructure Adequacy**

* A. *Residential Infrastructure Requirements*  
Measures that specifically require adequate service levels (i.e. road capacity or traffic congestion) or service capacity (i.e. water or sewer service capacity) prior to or as a condition of residential development approval.

* B. *Commercial/industrial Infrastructure Requirements*  
Measures that specifically require adequate service levels (e.g. road capacity) or service capacity (e.g. water or sewer service) prior to, or as a condition of, commercial or industrial development approval.

These measures also go by many other names: Adequate Public Facilities Ordinances (APFOs), Level of Service (LOS) requirements, or Concurrency requirements. (The term “concurrency” is derived from the Florida Growth Management Act and is not widely used in California.) In general, these measures prohibit the construction of new development unless the public infrastructure is in place to support it. In general,
infrastructure adequacy is measured by predicting the impact on “levels of service” – that is, specific standards for virtually all public infrastructure, including roads (congestion levels), schools (capacity and crowding), parks (acres per person), and police and fire services (response times).

3-2-5. Zoning

A. Residential Downzoning
Measures to reduce the permitted residential density by general plan amendment or ordinance.

B. Residential Rezoning
Measures to rezone or redesignate land previously zoned for residential use to agriculture, open space, or other less intense uses.

C. Commercial/Industrial Rezoning
Measures to rezone or redesignate land previously zoned for commercial use to residential, agriculture, open space or other less intense uses.

Zoning is, of course, the most basic land-use regulatory tool. All jurisdictions in California are required to have zoning ordinances, and zoning must be “comprehensive” – that is, it must apply to all parcels in the jurisdiction. Zoning typically dictates the uses permitted on each parcel, the size and massing of the buildings permitted, and other requirements such as the number of parking spaces. One of the most common tools in California growth management is simply to alter the zoning (and usually the land-use designation in the General Plan as well) to permit only less intense uses – for example, rezoning commercial land to residential use; or “downzoning” residential property so that it can accommodate fewer units per acre than it could before.

3-2-6. General Controls

A. Growth Management Element
A comprehensive plan to address growth issues within the context of the general plan

B. Subdivided Lot Restrictions
Measures that restrict the total number of new subdivided lots that can be created in a given time frame.

C. Other Measures
Other measures to control the rate, intensity, type or distribution of development. (This could include infill and redevelopment strategies.)
This category includes a variety of miscellaneous approaches to managing growth in California communities. The Growth Management Element has become increasingly popular in the last 20 years as a means of incorporating the community’s growth management goals into the comprehensive context of the General Plan. It can contain a wide range of tools within it, but most often it contains some kind of long-term restriction on the amount of housing and non-residential space, along with some kind of infrastructure finance and monitoring plan.

3-2-7. Vote Requirements

A. Voter Approval for Changes in Zoning or General Plan Land Use Designations
Measures to require voter approval for certain kinds of changes to the zoning ordinance and the general plan land-use designations, including an increase in residential densities and a change on specific parcels from open space or agricultural use to residential or other urban uses.

B. Council Supermajority for Changes in Zoning or General Plan Land Use Designations
Measures to require that some or all general plan and zoning ordinance amendments that allow increased residential densities or other increases in urbanization be approved by a greater than simple majority of the governing board of local jurisdictions.

So-called “subsequent voter approval” requirements have been growing in popularity in recent years. These are typically enacted by ballot measure and have the effect of “locking in” the current zoning or general plan land use designation. Most often, they have been used to discourage “upzonings” and rezoning of property from agricultural or open space use to urban use. Obviously, they foster a culture of ballot-box planning in communities; once the vote requirement has been instituted, it is a virtual guarantee that future issues will be decided at the ballot box.
4. RESULTS OF THE SOLIMAR DATABASE ANALYSIS

4-1. Trends in Growth Management Ballot Measures

The Solimar database contains exactly 600 ballot measures over the 15-year period between 1986 and 2000, or an average of exactly 40 ballot measures per year. The vast majority (484, or 80.7%) appeared on city ballots, as opposed to countywide ballots.

As Figure 3 shows, the annual variation is considerable, fluctuating between a high of 89 in 1988 and a low of 11 in 1995. In general, the frequency was high during the economic boom of the late 1980s, then dropped dramatically during the recession of the early 1990s, and went up again during the economic recovery of the late 1990s, although it did not reach the late-'80s level again.

Figure 3. Ballot Measures By Year, 1986 – 2000

Growth management ballot measures have been largely a coastal metropolitan phenomenon. Most measures have appeared on ballots in the East Bay and South Bay counties in the San Francisco Bay Area and in the four coastal counties of Southern California (Los Angeles, Orange, San Diego, and Ventura). Although the ballot measure
phenomenon migrated from the Bay Area to Southern California during the 1980s, it has not migrated to inland areas since then. Most inland areas still see relatively little activity.

**Figure 4. Ballot Measures by County, 1986 – 2000**

Of these 600 measures, 354 (59.0%) were coded by Solimar/CP&DR staff as slow-growth elections, while 207 (34.5%) were coded as pro-growth elections and 39 (6.5%) were coded as neutral (See Figure 5). The pro/slow breakdown was approximately the same for measures that appeared on city ballots and those that appeared on countywide ballots. The majority of both city and county-wide ballot measures were slow growth,
59.9% and 55.2% respectively. Although, there were significant differences between neutral measures. Neutral measures were more prevalent at the county (16.4%) than the city (4.1%) level.

### Figure 5. Frequency of Slow/Pro Neutral Growth Measures

<table>
<thead>
<tr>
<th>All Ballot Measures</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>39</td>
<td>6.5%</td>
</tr>
<tr>
<td>Pro-Growth</td>
<td>207</td>
<td>34.5%</td>
</tr>
<tr>
<td>Slow-Growth</td>
<td>354</td>
<td>59.0%</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City Ballot Measures</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>20</td>
<td>4.1%</td>
</tr>
<tr>
<td>Pro-Growth</td>
<td>174</td>
<td>36.0%</td>
</tr>
<tr>
<td>Slow-Growth</td>
<td>290</td>
<td>59.9%</td>
</tr>
<tr>
<td>Total</td>
<td>484</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>County-wide Ballot Measures</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>19</td>
<td>16.4%</td>
</tr>
<tr>
<td>Pro-Growth</td>
<td>33</td>
<td>28.4%</td>
</tr>
<tr>
<td>Slow-Growth</td>
<td>64</td>
<td>55.2%</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

As Figure 7 reveals, the geographical pattern of pro- and slow-growth measures is not dramatically different. Coupled with subsequent results, this suggests that it is ballot activity on growth issues – rather than use of the ballot for slow- or pro-growth purposes – that is so deeply embedded in coastal areas.

When the city and county-wide pass/fail rate of slow/pro/neutral ballot measures are examined, interesting patterns emerge (See Figure 6). Slow-growth measures pass more often than fail at both the city and county levels. Pro-growth measures, on the other hand, are more likely to fail than pass at both geographic levels. But, county-wide pro-growth measures are much more likely to fail (63.6% of the time) than city pro-growth measures (51.7%). Unlike the results for slow- and pro-growth measures, there were differences in the pass/fail rate of neutral measures. Neutral city ballot measures passed more often while county-wide measures failed more often.

### Figure 6. Passage Rate, City vs. County-wide Measures by Slowgrowth/Progrowth/Neutral

<table>
<thead>
<tr>
<th></th>
<th>City Pass</th>
<th>% Pass</th>
<th>County-wide Pass</th>
<th>% Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow-Growth</td>
<td>166</td>
<td>57.2%</td>
<td>33</td>
<td>51.6%</td>
</tr>
<tr>
<td>Pro-Growth</td>
<td>84</td>
<td>48.3%</td>
<td>12</td>
<td>36.4%</td>
</tr>
<tr>
<td>Neutral</td>
<td>12</td>
<td>60.0%</td>
<td>5</td>
<td>26.3%</td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>54.1%</td>
<td>50</td>
<td>43.1%</td>
</tr>
</tbody>
</table>

4. RESULTS OF SOLIMAR DATABASE ANALYSIS
Figure 7. Pro and Slow Growth Measures by County, 1986 – 2000
Figure 8. Pass Rates For Slow and Pro Growth Measures by County, 1986 – 2000
Figure 8 shows the geographical pattern of pass rates for both slow-growth and pro-
growth measures. Not surprisingly, this pattern suggests that slow-growth measures pass
more frequently in coastal areas and pro-growth measures pass more frequently in inland
areas (even though the overall number of inland measures is smaller.)

The pro/slow/neutral breakdown showed a pattern over time that was similar to the
overall frequency. Until 1992, slow-growth ballot measures accounted for more than 55%
of all ballot measures each year. The pro/slow ratio changed during the recession of the
early 1990s. In 1994, perhaps the height of the recession, the number of pro-growth
elections exceeded the number of slow-growth elections. The slow/pro ratio did not
return to its pre-recession ratio consistently until 1998. (Figure 9)

Figure 9. Type of Ballot Measure as Percentage of Total

Not only are slow-growth measures less likely to appear during economic downturns, but
they are also more likely to fail when they are on the ballots. Taking a closer look at
slow-growth measures, Figure 10 reveals that the period slow-growth measures were
least likely to pass was 1993-1995. During these years, slow-growth measures failed
roughly 70% of the time. At no other time were slow-growth measures as unsuccessful in
passing as during this period.

4. RESULTS OF SOLIMAR DATABASE ANALYSIS
The pass/fail rate of pro-growth measures also appears to coincide with the economic cycle. The only period that pro-growth measures were more likely to pass than fail was between 1994-1998, this is at the tail end of the recession and during the period of

4. **RESULTS OF SOLIMAR DATABASE ANALYSIS**
economic recovery. During this time, the pass rate of pro-growth measure ranged from 52.8% to 75%. In the years proceeding, 1991-1993, pro-growth measures were much more likely to fail (See Figure 11).

4-2. Trends in Growth Management Tools

4-2-1. Statewide Trends in Growth Management Tools

In order to provide an analysis of the trends and distribution in growth management tools over time, we coded the content of each ballot measure into eight different tools categories. These categories include: general growth management, housing/population caps, commercial/industrial caps, infrastructure adequacy, zoning, urban growth boundaries, subsequent voter approval, and other. Rarely did any ballot measure contain more than three tools, therefore, we coded up to three tools for each ballot measure. The coding provided 763 tools, an average of roughly 1.27 tools per measure. Similar to the ballot measures analysis, we examined tools disaggregated by pass/fail and by slow/pro/neutral.

As shown in Figure 12, over the course of the 15 years, general growth management accounted for the most tools appearing on ballot measures (233, or 30.5%), followed by vote requirements (18.5%) and zoning (17.6%). Infrastructure adequacy – the most popular tool among growth management methods adopted by elected officials – was the least popular tool on ballot measures (only 4.6%).

Figure 12. Statewide Frequency of Tools, 1986 – 2000
The slow/pro/neutral breakdown of the tools reveals a somewhat different picture, however. General growth management and zoning are used much more frequently for pro-growth and neutral purposes than other tools. General growth management and zoning were used for slow-growth purposes less than half the time. Tools used most frequently for slow-growth purposes are population/housing caps (used for slow-growth purposes 90.7% of the time), vote requirements (86.5%), infrastructure adequacy (85.7%), and urban growth boundaries (77.1%).

Indeed, zoning and general growth management account for almost 70% of the pro-growth and neutral ballot activity in our database. Of the 279 pro-growth and neutral tools in our database, 126 are general growth management tools (45.2%) and 71 are zoning (26.4%). Among slow-growth ballot measures only, the most frequently used tool was the subsequent vote requirement (122 of 396 total tools, or 25.2%), following by general growth management (107, or 22.1%), urban growth boundaries (64, or 13.2%), and zoning (63, or 13.0%).

4-2-2. Passage and Failure Rate of Specific Tools Statewide

Remarkably, of the 763 tools contained in our ballot measure database, 382 passed and 381 failed. Individual tools had very different pass rates, however. The evidence suggests that, in most cases, voters are more likely to adopt growth management tools that are associated with slow-growth efforts, or are commonly used for slow-growth purposes.

As Figure 13 shows, UGBs (65.1%) and vote requirements (57.4%) had the highest pass rates. Commercial and industrial caps (52.2%), general growth management (50.2%), zoning (44.85%), and infrastructure adequacy (42.9%) all ranked in the middle. Surprisingly, the pass rate for population/housing caps (35.2%) is one of the lowest among all tools (except other).

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7 Passage is defined as receiving more than 50% of the vote. In some cases, a ballot measure might have received 50% of the vote and yet not been enacted because of a “poison pill” clause in a competing measure that received even more votes.
When the pass rates of the individual tools are broken down by slow- and pro-growth ballot measures, an even more striking pattern emerges. Overall, slow-growth tools passed 53.5% of the time (259 tools out of 484 in the database), while pro-growth tools passed 44.7% of the time (106 out of 237 in the database). Neutral measures passed 43.6% of the time (17 out of 39). Interestingly, voters appeared much more likely to approve strong growth management tools, such as UGBs and vote requirements, if they were associated with a slow-growth election. This is not true for other tools.

As Figure 14 shows, UGBs have passed 70.3% of the time when associated with slow-growth ballot measures, but only 41.8% of the time when associated with pro-growth ballot measures. A similar spread exists for vote requirements (63.1% versus 25.0%) and, surprisingly, infrastructure adequacy (46.7% versus 20.0%). The number of pro-growth infrastructure adequacy situations was very small.
4-3. Regional Trends in Growth Management Tools

Most tools appeared on ballots in either Southern California or the San Francisco Bay Area. These two regions tallied 585 ballot measures, over 76% of all the ballot measures in the state between 1986-2000. Almost all of the remaining tools appeared on ballots in the Central Valley (83, or 10.9%) and the Central Coast (56, or 7.2%). There were very low numbers of ballot measures and tools found in the North Coast and Upper Sacramento regions and therefore these regions will not be emphasized here.

The distribution of the types of tools employed in the two major metropolitan regions, Southern California and the San Francisco Bay Area, were surprising quite similar, as shown in Figure 15. Comparing the two smaller regions, population and housing caps were disproportionately popular in the Central Valley while vote requirements were disproportionately popular in the Central Coast.
## 4. RESULTS OF SOLIMAR DATABASE ANALYSIS

### Figure 15. Tools by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>C/I</th>
<th>% C/I CAPS</th>
<th>GEN</th>
<th>% GEN CAPS</th>
<th>INF</th>
<th>% INF CAPS</th>
<th>OTH</th>
<th>% OTH CAPS</th>
<th>VOTE</th>
<th>% VOTE CAPS</th>
<th>P/H</th>
<th>% P/H CAPS</th>
<th>UGB</th>
<th>% UGB CAPS</th>
<th>ZON</th>
<th>% ZON CAPS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Coast</td>
<td>2</td>
<td>3.6%</td>
<td>21</td>
<td>37.5%</td>
<td>2</td>
<td>3.5%</td>
<td>2</td>
<td>3.5%</td>
<td>12</td>
<td>21.2%</td>
<td>2</td>
<td>3.5%</td>
<td>5</td>
<td>8.8%</td>
<td>8</td>
<td>14.1%</td>
<td>56</td>
</tr>
<tr>
<td>Central Valley</td>
<td>0</td>
<td>0.0%</td>
<td>37</td>
<td>44.6%</td>
<td>5</td>
<td>6.0%</td>
<td>0</td>
<td>0.0%</td>
<td>8</td>
<td>9.6%</td>
<td>12</td>
<td>14.4%</td>
<td>8</td>
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<td>15.5%</td>
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<tr>
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<td>0</td>
<td>0.0%</td>
<td>9</td>
<td>75.0%</td>
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<td>0.0%</td>
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<td>SF Bay</td>
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<td>8.5%</td>
<td>75</td>
<td>29.1%</td>
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<td>3.5%</td>
<td>7</td>
<td>2.7%</td>
<td>48</td>
<td>18.6%</td>
<td>14</td>
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<td>18.9%</td>
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<td>Socal</td>
<td>22</td>
<td>6.7%</td>
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<td>26.0%</td>
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<td>4.9%</td>
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<td>7.6%</td>
<td>65</td>
<td>19.9%</td>
<td>24</td>
<td>7.3%</td>
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<td>11.0%</td>
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<td>Upper Sac</td>
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<td>0.0%</td>
<td>6</td>
<td>22.2%</td>
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<td>11.0%</td>
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<td>3.7%</td>
<td>6</td>
<td>21.9%</td>
<td>2</td>
<td>7.2%</td>
<td>0</td>
<td>0.0%</td>
<td>9</td>
<td>32.5%</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>46</td>
<td></td>
<td>233</td>
<td></td>
<td>35</td>
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### Figure 16. Region Tools by Pass/Fail

<table>
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<th>Region</th>
<th>CENTRAL COUNTY</th>
<th>CENTRAL VALLEY</th>
<th>NORTH COAST</th>
<th>SF BAY</th>
<th>SOCAL</th>
<th>UPPER SAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass/Fail</td>
<td>Pass/Fail</td>
<td>Pass/Fail</td>
<td>Pass/Fail</td>
<td>Pass/Fail</td>
<td>Pass/Fail</td>
<td>Pass/Fail</td>
</tr>
<tr>
<td>C/I CAPS</td>
<td>1(50%)/1(50%)</td>
<td>0(0%)/0(0%)</td>
<td>0(0%)/0(0%)</td>
<td>11(50%)/11(50%)</td>
<td>12(54.5%)/10(45.5%)</td>
<td>0(0%)/0(0%)</td>
</tr>
<tr>
<td>GEN</td>
<td>11(52.4%)/10(47.6%)</td>
<td>13(35.1%)/24(64.9%)</td>
<td>4(44.4%)/5(55.6%)</td>
<td>37(49.3%)/38(50.7%)</td>
<td>51(60%)/34(40%)</td>
<td>1(16.7%)/5(83.3%)</td>
</tr>
<tr>
<td>INF</td>
<td>2(100%)/0(0%)</td>
<td>2(40%)/3(60%)</td>
<td>0(0%)/0(0%)</td>
<td>3(33.3%)/6(66.7%)</td>
<td>7(43.8%)/9(56.25%)</td>
<td>1(33.3%)/2(66.7%)</td>
</tr>
<tr>
<td>OTH</td>
<td>1(25%)/3(75%)</td>
<td>0(0%)/0(0%)</td>
<td>0(0%)/0(0%)</td>
<td>1(14.3%)/6(85.7%)</td>
<td>10(40%)/15(60%)</td>
<td>0(0%)/1(100%)</td>
</tr>
<tr>
<td>VOTE</td>
<td>8(66.7%)/4(33.3%)</td>
<td>2(25%)/6(75%)</td>
<td>2(100%)/0(0%)</td>
<td>26(54.7%)/22(45.8%)</td>
<td>41(63.1%)/24(36.9%)</td>
<td>2(33.3%)/4(66.7%)</td>
</tr>
<tr>
<td>P/H CAPS</td>
<td>0(0%)/2(100%)</td>
<td>3(25%)/9(75%)</td>
<td>0(0%)/0(0%)</td>
<td>8(57.1%)/6(42.9%)</td>
<td>8(33.3%)/16(66.7%)</td>
<td>0(0%)/2(100%)</td>
</tr>
<tr>
<td>UGB</td>
<td>3(60%)/2(40%)</td>
<td>6(75%)/2(25%)</td>
<td>0(0%)/0(0%)</td>
<td>28(82.4%)/6(17.6%)</td>
<td>17(47.2%)/19(52.8%)</td>
<td>0(0%)/0(0%)</td>
</tr>
<tr>
<td>ZON</td>
<td>6(75%)/2(25%)</td>
<td>1(7.7%)/12(92.3%)</td>
<td>0(0%)/1(100%)</td>
<td>22(44.9%)/27(55.1%)</td>
<td>27(50%)/27(50%)</td>
<td>4(44.4%)/5(55.6%)</td>
</tr>
</tbody>
</table>
Although the types of tools placed on the ballots were similar in Southern California and the Bay Area, the pass/fail rate of the tools was quite different between these two regions. As exemplified in Figure 16, the tools that were more likely to pass than fail in Southern California but were not more likely to pass than fail in the Bay Area were commercial/infrastructure caps and general growth management. Alternately, tools that were more likely to pass than fail in the Bay Area are population/housing caps and urban growth boundaries. Examination of the two smaller regions revealed dramatic variations in the types of tools that had greater success at the ballots. General growth management, vote requirement, and zoning had a large passage rate in the Central County, while these tools were more likely to fail in the Central Valley. The variation in passage rates for different tools reinforces the trends identified in previous research that suggests that there are distinct differences in the way regions approach growth management.

When slow/pro/neutral-growth distinctions are made, Bay Area voters were much more likely to approve urban growth boundaries (87.1% for slow-growth measures, 82.4% overall) than were voters in Southern California (52.2% for slow-growth measures, 45.7% overall). Although overall pass rates for zoning tools were approximately the same (49.1% in Southern California, 46.8% in the Bay Area), the pass rate for slow-growth zoning tools in Southern California was much higher (60.7% versus 40.9% in the Bay Area). Somewhat surprisingly, Southern California voters approved vote requirements more often than Bay Area voters (69.6% for slow-growth measures, 66.1% overall, versus 61.5% for slow-growth measures in the Bay Area and 54.8% overall).

These results suggest that Bay Area voters are more interested than their Southern California counterparts in containing the geographical expansion of urban growth, whereas Southern California voters are more interested in growth management techniques that tend to reduce densities and, possibly, exacerbate sprawl as a result. These findings are consistent with findings by Glickfeld and Levine in the past.

4-4. County Trends in Growth Management Tools

Among counties in California, San Diego was the leader in using the ballot measure process to manage growth. San Diego County voted on 106 growth management tools between 1986-2000. No other county in the state comes close to this number. The runner-ups included Los Angeles (75 tools), Contra Costa (50 tools), Ventura (47 tools), and Orange (41 tools) counties.

Figure 17 reveals that San Diego has passed and failed the largest number of growth management tools. Furthermore, there is nearly an even split among the number of tools that pass (50) and tools that failed (56). Of the tools adopted, general growth management and vote requirement are most common. Among tools that failed, zoning tools are disproportionately more likely to fail than any other tool in the county.
The second- and third ranked-counties in growth management tools passed were Los Angeles and Ventura. In both of these counties, the tools that disproportionately passed were the same that disproportionately failed. For example, general growth management and zoning were the tools that were the most prevalent among tools that passed in Los Angeles, but they were also the most prevalent among tools that failed. Similarly, in Ventura, vote requirement and UGB were the tools that were more both more often adopted and unsuccessful than other tools. These results suggest that there are variations in the types of growth management policies that tend to dominate local area politics.

The slow/pro split in the top counties varied measurably. Slow-growth measures dominated in Contra Costa (92.3% of all ballot measures), Orange (81.8%) Alameda (80%), Sonoma (77.8%), and Ventura (75%). Slow-growth measures appeared much less frequently in San Mateo (48.3%), Santa Clara (51.9%), and San Diego (55.6%). At 63.6%, Los Angeles County was in the middle. Thus, the East Bay and the South Bay had different profiles, and San Diego had a different profile than the rest of Southern California.

Slow-growth measures won at least half the time in all the top counties except for Contra Costa, with Sonoma (76.2%) and Los Angeles (74.3%) leading the slow-growth pass rate. Pro-growth pass rates varied dramatically in the top counties, from more than 70% to just over 20%.
## TOOLS AND PATTERNS OF GROWTH MANAGEMENT BALLOT MEASURES
### IN CALIFORNIA: 1986 – 2000

**Figure 17. Rank Order of Counties by Tools that Passed and Failed**

### TOOLS THAT PASSED

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>CI CAPS</th>
<th>% GEN</th>
<th>% INF</th>
<th>% OTH</th>
<th>% VOTE</th>
<th>% P/H CAPS</th>
<th>% UGB</th>
<th>% ZON</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Diego</td>
<td>4</td>
<td>8.0%</td>
<td>34.0%</td>
<td>8.0%</td>
<td>2.0%</td>
<td>20.0%</td>
<td>6.0%</td>
<td>10.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>7</td>
<td>15.9%</td>
<td>40.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>15.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>18.2%</td>
</tr>
<tr>
<td>Ventura</td>
<td>0</td>
<td>0.0%</td>
<td>6.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>34.5%</td>
<td>13.8%</td>
<td>31.0%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Sonoma</td>
<td>1</td>
<td>4.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>40.0%</td>
<td>8.0%</td>
<td>44.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Alameda</td>
<td>0</td>
<td>0.0%</td>
<td>31.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>7.31.8%</td>
<td>4.5%</td>
<td>18.2%</td>
<td>13.6%</td>
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<tr>
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<td>0.0%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>31.0%</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>3</td>
<td>13.6%</td>
<td>22.7%</td>
<td>4.5%</td>
<td>4.5%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>31.0%</td>
</tr>
<tr>
<td>Orange</td>
<td>0</td>
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<td>26.3%</td>
<td>10.5%</td>
<td>15.8%</td>
<td>42.1%</td>
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<td>5.3%</td>
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<tr>
<td>Contra Costa</td>
<td>0</td>
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<td>47.1%</td>
<td>5.9%</td>
<td>5.9%</td>
<td>40.0%</td>
<td>40.0%</td>
<td>29.4%</td>
<td>31.8%</td>
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<tr>
<td>Riverside</td>
<td>1</td>
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<td>31.3%</td>
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<td>6.7%</td>
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<tr>
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<td>6.7%</td>
<td>40.0%</td>
<td>40.0%</td>
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<td>31.8%</td>
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<tr>
<td>San Francisco</td>
<td>3</td>
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<td>4.5%</td>
<td>9.1%</td>
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<td>9.1%</td>
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<tr>
<td>Stanislaus</td>
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<td>21.8%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>18.2%</td>
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<td>11.8%</td>
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<tr>
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<td>5.9%</td>
<td>5.9%</td>
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<tr>
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### TOOLS THAT FAILED

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<th>% OTH</th>
<th>% VOTE</th>
<th>% P/H CAPS</th>
<th>% UGB</th>
<th>% ZON</th>
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<td>Contra Costa</td>
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<td>9.4%</td>
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<td>21.3%</td>
<td>21.3%</td>
<td>21.3%</td>
<td>21.3%</td>
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<td>Sonoma</td>
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<td>18.2%</td>
<td>18.2%</td>
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<td>44.4%</td>
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</tr>
</tbody>
</table>

### RESULTS OF SOLIMAR DATABASE ANALYSIS
4-5. Trends Over Time

Just as the frequency of the ballot measures has varied considerably over time, so have the results when broken down by tool and by slow- and pro-growth measures. To provide focus to the time analysis, we aggregated the results by three five-year periods (1986-1990, 1991-1995, and 1996-2000) that more or less approximate the economic cycle (boom, recession, recovery).

Almost half of the 724 pro- and slow-growth measures appeared during the boom of the late ‘80s (344, or 47.5%). The frequency tailed off dramatically during the recession and rose during the recovery to approximately two-thirds of the level of activity during the boom. The slow/pro breakdown remained approximately the same during each period (about two-thirds of the tools associated with slow-growth measures and about one-third associated with pro-growth measures).

However, the frequencies of the individual tools varied considerably over time. Most significantly, UGBs and vote requirements, which pass more often and are usually associated with slow-growth ballot measures, have increased dramatically in frequency in recent years. UGBs rose from 6.4% of all ballot tools in 1986-90 to 7.9% in 1991-95 and finally to 19.4% in 1996-2000. Vote requirements rose during the three time periods from 14.5% of all ballot tools to 15.7% and finally to 27.3%. More than half of all UGB and vote requirement tools appeared on ballots in the last five years. In part, this is undoubtedly due to the impact of the California Supreme Court’s 1995 ruling in the De Vita case, which upheld Napa County’s requirement to put changes to its UGB on the ballot for a vote.

Meanwhile, general growth management, which is often associated with pro-growth measures and do not pass as often, were far more common in the past and their frequency has declined in recent years. General growth management accounted for 33.4% of all tools on the ballot between 1986 and 1990. That figure rose to 37.8% in 1991-1995 but dropped to only 17.0% in 1996-2000.

All these trends become even more striking when tools are broken out by slow- and pro-growth ballot measures. General growth management dropped from 26.1% of all tools appearing on slow-growth ballot measures during the 1986-90 period to only 11.4% of tools during the 1996-2000 period, while UGBs increased from 7.1% to 23.5%. Even in pro-growth ballot measures, UGBs and vote requirements increased their frequency while general growth management declined dramatically.

4-6. Passage and Failure Rate of Specific Tools

As stated above, the pass rate of the 763 tools is almost exactly 50%. For slow-growth tools, the pass rate is 53.5%; for pro-growth tools, it is 46.5%. These figures have changed over time in approximate relationship to the economy.
Between 1986 and 1990, almost exactly half of the tools passed, but in those boom times slow-growth tools did much better – passing 54.2% of the time as compared to 37.7% for pro-growth tools. Between 1991 and 1995 – the recession period – the pass rate dropped to 44.9% overall. It was 47.5% for slow-growth tools and 40.4% for pro-growth tools. Between 1996 and 2000 – the recovery period – the pass rate improved dramatically, to approximately 55% for both slow- and pro-growth measures.

The pass rates for individual tools has changed over time as well, but not always according to any formulaic result. For example, as shown in Figure 18:

- The pass rate for UGBs rose substantially from 50% in the ‘80s to approximately 70% during both periods of the ‘90s. Slow-growth UGBs have passed with remarkably frequency (36 of 47 between 1991 and 2000, or 76.5%).
- The pass rate for other measures has bounced around. Vote requirements, for example, dropped from 63.3% in the late ‘80s to 45.0% in the early ‘90s and then back to 59.4% in the late ‘90s. These figures were even more accentuated for slow-growth ballot measures.
- General growth management dropped from 49.6% in the late ‘80s to 37.5% in the early ‘90s to 72.5% in the late ‘90s – the latter increase owing to a remarkably high pass rate (21 of 24, or 87.5%) for pro-growth general growth management tools in the late ‘90s.
- The pass rate for zoning measures moved from 45.8% in the late ‘80s to 59.3% in the early ‘90s and then down to 34.1% in the late ‘90s. This last figure is due largely to the fact that zoning tools proved extremely unpopular in slow-growth ballot measures in the late ‘90s (only 22.2% pass rate).
### Figure 18. Pass-Fail Rate of All Tools By Five-Year Time Periods

#### 1986-1990

<table>
<thead>
<tr>
<th>Tool Type</th>
<th>Pass</th>
<th>Fail</th>
<th>Total</th>
<th>Pass %</th>
<th>Fail %</th>
<th>Total</th>
<th>Pass %</th>
<th>Fail %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population/Housing Caps</td>
<td>34</td>
<td>9</td>
<td>33</td>
<td>26.5%</td>
<td>73.5%</td>
<td>25</td>
<td>75.8%</td>
<td>0</td>
</tr>
<tr>
<td>Commercial/Industrial Caps</td>
<td>29</td>
<td>16</td>
<td>45</td>
<td>60.0%</td>
<td>40.0%</td>
<td>14</td>
<td>9.8%</td>
<td>6</td>
</tr>
<tr>
<td>Urban Growth Boundaries</td>
<td>22</td>
<td>11</td>
<td>33</td>
<td>66.7%</td>
<td>33.3%</td>
<td>17</td>
<td>9.7%</td>
<td>5</td>
</tr>
<tr>
<td>Infrastructure Adequacy</td>
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<td>11</td>
<td>33</td>
<td>66.7%</td>
<td>33.3%</td>
<td>17</td>
<td>9.7%</td>
<td>5</td>
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<tr>
<td>Zoning</td>
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<td>86</td>
<td>40.0%</td>
<td>60.0%</td>
<td>30</td>
<td>86.7%</td>
<td>3</td>
</tr>
<tr>
<td>General Growth Management</td>
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<td>57</td>
<td>172</td>
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<td>50.4%</td>
<td>53</td>
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<tr>
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<td>49</td>
<td>31</td>
<td>80</td>
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<td>52.6%</td>
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<tr>
<td>Other</td>
<td>14</td>
<td>7</td>
<td>21</td>
<td>34.8%</td>
<td>65.2%</td>
<td>8</td>
<td>46.2%</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>344</td>
<td>169</td>
<td>513</td>
<td>49.1%</td>
<td>50.9%</td>
<td>238</td>
<td>54.2%</td>
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#### 1991-1995

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<th>Total</th>
<th>Pass %</th>
<th>Fail %</th>
<th>Total</th>
<th>Pass %</th>
<th>Fail %</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
<td>5</td>
<td>25.0%</td>
<td>75.0%</td>
<td>3</td>
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<td>0</td>
</tr>
<tr>
<td>Commercial/Industrial Caps</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>50.0%</td>
<td>50.0%</td>
<td>4</td>
<td>50.0%</td>
<td>2</td>
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<tr>
<td>Urban Growth Boundaries</td>
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<td>7</td>
<td>17</td>
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<tr>
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<td>2</td>
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<tr>
<td>Zoning</td>
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<td>60.0%</td>
<td>15</td>
<td>58.8%</td>
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<tr>
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<td>48</td>
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<td>66</td>
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<td>57.9%</td>
<td>26</td>
<td>39.4%</td>
<td>18</td>
</tr>
<tr>
<td>Vote Requirements</td>
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<td>29</td>
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<td>34.5%</td>
<td>6</td>
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<tr>
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<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>57</td>
<td>184</td>
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#### 1996-2000

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<th>Fail %</th>
<th>Total</th>
<th>Pass %</th>
<th>Fail %</th>
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</thead>
<tbody>
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<td>23</td>
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<td>39</td>
<td>92.3%</td>
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<tr>
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<td>7</td>
<td>50.0%</td>
<td>3</td>
</tr>
<tr>
<td>Infrastructure Adequacy</td>
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<td>71.4%</td>
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<td>42.9%</td>
<td>4</td>
</tr>
<tr>
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<td>44</td>
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<td>59</td>
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<td>29</td>
<td>78.9%</td>
<td>14</td>
</tr>
<tr>
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<td>43</td>
<td>17</td>
<td>60</td>
<td>45.0%</td>
<td>55.0%</td>
<td>19</td>
<td>78.9%</td>
<td>10</td>
</tr>
<tr>
<td>Vote Requirements</td>
<td>69</td>
<td>41</td>
<td>110</td>
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<tr>
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<td>100.0%</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>57</td>
<td>184</td>
<td>44.9%</td>
<td>55.1%</td>
<td>70</td>
<td>47.5%</td>
<td>42</td>
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</tbody>
</table>

#### All Years: 1986-2000

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<th>Fail %</th>
<th>Total</th>
<th>Pass %</th>
<th>Fail %</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18</td>
<td>71</td>
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<td>66.0%</td>
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<td>67.3%</td>
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<tr>
<td>Commercial/Industrial Caps</td>
<td>46</td>
<td>24</td>
<td>70</td>
<td>32.9%</td>
<td>67.1%</td>
<td>31</td>
<td>96.8%</td>
<td>1</td>
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<tr>
<td>Urban Growth Boundaries</td>
<td>81</td>
<td>52</td>
<td>133</td>
<td>38.5%</td>
<td>61.5%</td>
<td>64</td>
<td>50.0%</td>
<td>45</td>
</tr>
<tr>
<td>Infrastructure Adequacy</td>
<td>35</td>
<td>15</td>
<td>50</td>
<td>42.0%</td>
<td>58.0%</td>
<td>30</td>
<td>60.0%</td>
<td>10</td>
</tr>
<tr>
<td>Zoning</td>
<td>130</td>
<td>58</td>
<td>188</td>
<td>43.7%</td>
<td>56.3%</td>
<td>63</td>
<td>49.3%</td>
<td>34</td>
</tr>
<tr>
<td>General Growth Management</td>
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<td>106</td>
<td>312</td>
<td>65.9%</td>
<td>34.1%</td>
<td>107</td>
<td>45.9%</td>
<td>62</td>
</tr>
<tr>
<td>Vote Requirements</td>
<td>138</td>
<td>81</td>
<td>219</td>
<td>63.2%</td>
<td>36.8%</td>
<td>122</td>
<td>52.1%</td>
<td>67</td>
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<tr>
<td>Other</td>
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<td>11</td>
<td>43</td>
<td>72.1%</td>
<td>27.9%</td>
<td>18</td>
<td>41.9%</td>
<td>9</td>
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<tr>
<td>Total</td>
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<td>365</td>
<td>1092</td>
<td>46.5%</td>
<td>53.5%</td>
<td>460</td>
<td>47.5%</td>
<td>131</td>
</tr>
</tbody>
</table>

4. RESULTS OF SOLIMAR DATABASE ANALYSIS

44
4-7. Trends By Other Factors

We merged 1990 and 2000 Census data with the Solimar database to examine the trends in measures and tools at the city and county level with other factors, such as population, race, and income. In each case, we analyzed both the existing characteristics in 1990 and the change from 1990 to 2000. The analysis was conducted for all cities where growth management measures had appeared on the ballot and for all counties (city and countywide measures within each county were aggregated to the county level).  

4-7-1. Population Size, 2000

Cities were divided into four population size categories: small (up to 50,000); medium (50,000 to 100,000); large (100,000 to 250,000); and very large (250,000 and above). The number of cities in the “very large” category is small.

In general, smaller cities were more likely to place slow-growth measures on the ballot, while larger cities were more likely to place pro-growth measures on the ballot. This observation held across all categories, but was most strong in the very large city category, where only 31% of ballot measures were classified as “slow growth”. Overall pass/fail rates did not seem to follow any particular pattern. General growth management and zoning were the most common tools used in all size categories. However, smaller cities were more likely to place vote requirements on the ballot and larger cities were less likely. Oddly, urban growth boundaries appeared slightly more often on ballots in larger cities, though the UGB numbers across all categories did not vary a great deal.

We conducted similar analysis, examining both city and county-wide tools by county size. We divided counties into four categories: small counties (population under 400,000), medium-sized counties (population 400,000 to 1 million); large counties (population 1 million to 2 million); and very large counties (population 2 million). This sorting recognizes that, in many cases, small cities with ballot activity are located in large counties. The results reveal some interesting differences with the city population size analysis.

First, unlike the city size analysis, all county size categories were significantly more likely to have slow-growth than pro-growth measures. These differing results between city and county levels suggests that county-level analyses may mask interesting differences in slow/pro growth policies that exist at the city level. If this is true, more
studies that examine policies and outcomes at the city level would contribute to our understanding of growth.

A look at the pass/fail rate of specific tools shows that commercial/industrial caps and general controls are more likely to pass in larger counties. In addition, as county size increases, the rate of passage for urban growth boundaries dramatically decreases. Small counties pass urban growth boundaries 72.4% of the time while very large counties pass them 38.5% of the time. Other than these differences, the county size trends appear to match city size trends.

4-7-2. Rate of Population Growth, 1990-2000

For the city population growth analysis, we divided the cities into four categories: loss or small population increase (-9.2% to 5.0%), moderate population increase (5.0% to 10.0%), large population increase (10.0% to 15.0%), and very large population increase (15.0% and above). The 584 tools examined in this analysis were more or less equally distributed in the four categories, though somewhat more tools fell into the “very large population increase” category.

The most striking finding is that, while almost two-thirds of all tools analyzed were associated with slow-growth ballot measures, for very large population increase cities the figure was 79.3% -- meaning slow-growth elections are much more likely in cities that are growing rapidly. Tools associated with all measures – slow-growth and pro-growth – tended to pass more often in cities with very large population increases.

Among specific tools, general growth management and vote requirements were frequently used across all categories. However, urban growth boundaries were far more frequent in rapidly growing cities than in slow-growing cities, whereas zoning showed something of a reverse pattern. The use of population and housing caps also increased noticeably with an increase in the rate of a city’s population growth.

When ballot measure tools are examined in the context of countywide growth rates, similar patterns occur. The 721 slow- and pro-growth tools were analyzed by dividing the counties in which the ballot measure took place (city or countywide) into four size categories, ranging from loss or small population increase to very large population increase. Once again, tools associated with slow-growth ballot measures appeared more frequently as the rate of population growth increased. Similar trends in the use of tools was also observed – though it is worth noting that commercial and industrial caps, while not frequent, were most prevalent in slow-growing counties and they passed almost 60% of the time.

4-7-3. Racial Composition, 1990

Most literature on growth management has speculated that, if the motive for managing growth is exclusionary, growth management tools might be used more frequently in
communities with a large white population. After examining several different analytical approaches to racial composition, we chose to use the white population as the best measurement to compare ballot activity against.

We examined the differences in tools used in cities according to the percentage of the white population. The percent population of whites in our database ranged from 53.6%-97.3% with a mean of 74%. This is above the statewide average of percent white population, which suggests that ballot measure activity occurs more often in cities with higher percentages of white residents. With this in mind, we categorized the racial composition of cities according to the percentage of the total population that is white. The categories are: small white (53.6-69.0%), medium white (69.1-75.0%), large white (75.1-79.1%), and very large white (79.2-97.3%).

The analysis found that general growth management and vote requirement were frequently found in every category of racial composition. But, cities with smaller white populations disproportionately used commercial/industrial caps and zoning. Cities with larger white populations more often employ urban growth boundaries as a tool to manage growth.

In general, vote requirement and urban growth boundaries were more likely to pass. Among the racial composition categories, cities in the small white category appeared to pass all tools, except for infrastructure adequacy and other. When slow- and pro-growth measures were analyzed, cities with smaller white populations had a disproportionate share of pro-growth measures. In contrast, cities with large white populations white had the largest proportion of slow-growth measures, 31.4%.

4-7-4. White Population Change, 1990-2000

We analyzed the changing racial composition of California jurisdictions several ways, but concluded that the most relevant way to examine these issues is to examine growth management ballot measures in the context of the changing white population as measured by the U.S. Census in 1990 and 2000.

Most cities in California lost white population during the 1990s. We divided into our analysis of cities into four categories: cities with little change in the white population; cities with a small drop; cities with a moderate drop; and cities with a large drop. Once again, the ballot measure tools (617 in this case) were divided more or less equally among all four categories.

The most striking finding was that tools associated with slow-growth measures were dramatically more likely to be found in cities that were holding their white population. Overall, 67.1% of tools on city ballots were associated with slow-growth measures. For cities holding white population, that figure was 86.4%. Among those cities, there were 114 tools associated with slow-growth ballot measures and only 18 associated with pro-
growth ballot measures. For cities with a large drop in white population, only 52.1% of tools were associated with slow-growth ballot measures.

In most cases, the breakdown of tools was not substantially different across categories. As usual, zoning and general growth management were the most frequently used tools. However, the frequency with which vote requirements are used appears related to change in white population. Vote requirements dropped from 24.2% of all ballot measures in little change in white population to only 11.8% in cities with a large drop in white population.

Passage rates did not reflect any particular consistent trend. Slow-growth measures passed more frequently, and pro-growth measures passed less frequently, in cities with larger white population losses. However, certain tools associated with slowing growth showed very high pass rates in certain circumstances. For example, urban growth boundaries showed a 90.9% pass rate (20 of 22) in cities with little change in white population. (All the measures were classified as slow-growth.) By contrast, in cities with a large drop in white population, the UGB pass rate was 41.7% (5 of 12).

4.7-5. Median Income, 2000

We analyzed trends in tools contained in city ballot measures by examining four different groups of cities sorted by median income, and trends in tools contained in all ballot measures by examining four different groups of counties sorted by median income.

It is first important to note that all counties with any ballot measures at all had median incomes above the statewide average. The county breakdowns are based on relative median income within those counties that had ballot measures.

Among cities, slow-growth tools contained in ballot measures were most frequent in cities of low median income and cities of very high median income – approximately 80% of all ballot tools in each case. However, the passage rate for slow-growth measures varied dramatically. Even though almost 80% of ballot measures in low median income cities were slow-growth, those measures passed only 46.6% of the time.

Perhaps the most dramatic category was moderate median income cities, where tools were split almost evenly between pro- and slow-growth tools. In that category, however, slow-growth tools passed 72.3% of the time, while slow-growth tools passed only 28.2% of the time.

Interestingly, this same category – moderate median income cities – also had the lowest incidence of urban growth boundaries at 2.9%. General growth management was the most frequent tool across all categories, while vote requirements were more frequent among higher median income cities.
Income analysis at the countywide level produced a somewhat different pattern. Slow-growth tools were predominant among high median income cities (83.7%) but considerably lower among very high income cities (57.9%). However, slow-growth tools passed far more frequently among very high income cities (61.8%) than among other income categories.

4-7-6. Change in Median Income, 1990-2000

Analysis of results based on change in median income also produced interesting patterns, especially at the countywide level.

There was a strong trend toward slow-growth tools appearing on ballots in jurisdictions located in counties where the median income was going up dramatically. Whereas only 55.6% of ballot tools were slow-growth in the case of cities that had a decline or only a small increase in median income, that figure was 82% for in counties with a large median income increase and 70% in counties with a very large increase in median income. Pass rates for slow-growth measures was also higher in counties where median incomes were rising. Among tools appearing on the ballot, the strongest trend was a increase in vote requirements in counties where median incomes were rising quickly.

4-8. Cities With Ballot Measures v. Cities Without Ballot Measures

4-8-1. Descriptive Statistics

In the following analysis, we examined the characteristic differences between cities with and cities without growth management ballot measures. We also wanted to find out whether there are associations between ballot measure activity and population, income, race, and housing in between cities using 1990 data. In addition, we calculated the association between ballot measure activity and percentage difference in these variables between 1990-2000.

The descriptive statistics appear to show distinct differences between cities with ballot measures and cities without ballot measures, as shown in Figure 19. On average, cities with ballot measures had smaller populations in 1990 and lower population growth between 1990-2000 than cities without ballot measures. The average population for cities with ballot measures was 38,152 and average population change was 18.3%, whereas average population was 94,211 and average population change was 23.3% for cities without ballot measures.

Contrary to popular belief that cities having growth management regimes are more affluent than those that do not, it appears that cities without ballot measures have higher average incomes than cities with ballot measures. Cities without ballot measures have roughly 10% greater average incomes than cities with. Although, cities having ballot measures have had a larger income increase on average over the time. This reveals that
cities having ballot measures may currently not be as affluent as those that do not, but their incomes are increasing at a more rapid rate over time.

We calculated the racial composition of the cities as the percentage of the population that is white. We found that there was little difference in percentage white population between the two types of cities. But, there was a noticeable difference in the change in percent white population over time. Cities with ballot measures appear to be losing a greater number of white residents on average than cities without ballot measures, -22% and -16% respectively.

Examining differences in multi-family and single-family housing over the 10-year period provides interesting results. Cities with ballot measures have dramatically lower growth in multi-family housing than cities without. The mean increase in multi-family housing (those with over 5 units) between 1990-2000 is only 18.6% for cities with ballot measures and 55.9% for cities without ballot measures. The same pattern exists for single-family housing. Single-family housing increased 2.6% on average in cities with ballot measures and 4.7% in cities without. These results beg the question: Do growth management measures slow down the construction of housing? We explore this question in the analysis that follows.
### Figure 19. Characteristics of Cities with Ballot Measures vs. Cities without Ballot Measures

<table>
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<th></th>
<th>Inc 90</th>
<th>Inc 00</th>
<th>% Inc Ch 90-00</th>
<th>Pop 90</th>
<th>Pop 00</th>
<th>% Pop Ch 90-00</th>
<th>White 90</th>
<th>White 00</th>
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<th>Multi-Fam Ch 90-00</th>
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<td><strong>Cities W/Ballot Measures</strong></td>
<td>Mean</td>
<td>$35,471</td>
<td>$48,756</td>
<td>45.2%</td>
<td>33,259</td>
<td>18.3%</td>
<td>21,415</td>
<td>15,426</td>
<td>18.3%</td>
<td>18.61%</td>
<td>2.61%</td>
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<tr>
<td></td>
<td>Median</td>
<td>$29,632</td>
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<td>42.1%</td>
<td>14,599</td>
<td>11.5%</td>
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<td>Std. Deviation</td>
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<td>$21,611</td>
<td>40.5%</td>
<td>56,156</td>
<td>23.9%</td>
<td>23,805</td>
<td>34,141</td>
<td>27.51%</td>
<td>51.9%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cities W/O Ballot Measures</strong></td>
<td>Mean</td>
<td>$42,462</td>
<td>$58,044</td>
<td>39.9%</td>
<td>85,070</td>
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<td>57,763</td>
<td>43,734</td>
<td>58.55%</td>
<td>-15.7%</td>
<td>55.87%</td>
</tr>
<tr>
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<td>Median</td>
<td>$39,975</td>
<td>$54,417</td>
<td>38.9%</td>
<td>40,079</td>
<td>12.47%</td>
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<td>62.70%</td>
<td>-12.7%</td>
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</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
<td>$15,241</td>
<td>$17,762</td>
<td>20.3%</td>
<td>294,030</td>
<td>49.15%</td>
<td>160,744</td>
<td>101,726</td>
<td>25.3%</td>
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<td></td>
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</tr>
</tbody>
</table>

4. **RESULTS OF SOLIMAR DATABASE ANALYSIS**
4.8-2. Associations Between Ballot Measures and City Characteristics

We conducted numerous correlation analyses to gain a sense of whether ballot measure activity is associated with city measures that are commonly believed to be affected by growth management policies. In the analysis that follows, only city ballot measures and tools were included. We were interested in determining what city characteristics are associated with ballot measure activity (cities with vs. cities without ballot measures), number of ballot measures, tools by slow/pro and pass/fail, (slow-growth pass, slow-growth fail, pro-growth pass, pro-growth fail), type of tool and result of individual tool. Community characteristics include: population (1990), population change (1990-2000), income (1990), income change (1990-2000), racial composition (white population, 1990), racial composition change (% white population change, 1990-2000), change in percent of multi-family housing (1990-2000), and change in percent of single-family housing (1990-2000).

The correlation analysis reveals quite differing results from the descriptive analysis. Correlating the existence of ballot measures with community characteristics, we found that cities having ballot measures are significantly associated with:

- Larger population
- Larger white population
- Higher median income

There was no significant correlation between cities with ballot measures and:

- Change in population
- Change in white population
- Change in income
- Change in single-family or multi-family housing (see Figure 20)

The association between cities having ballot measures and larger population, larger white population and median income points to exclusionary behavior that is often believed to be the motivator of growth management activity. There is still uncertainty as to why these types of communities are more likely than others to engage in growth management activity. Are these communities experiencing negative externalities (e.g. traffic congestion, pollution, sprawl) from growth and are reacting to it? Or are these types of communities trying to keep out “undesirable” persons or types of development? The answers to these questions are outside the scope of this analysis.
### Figure 20. Correlations Between "Ballot Measures Cities" And Community Characteristics

<table>
<thead>
<tr>
<th></th>
<th>BM (Cities with=1)</th>
<th>Pop 90</th>
<th>Pop Ch 90-00</th>
<th>Inc 90</th>
<th>Inc Ch 90-00</th>
<th>White 90</th>
<th>White Ch 90-00</th>
<th>Multi-family Ch 90-00</th>
<th>Single-family Ch 90-00</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM (Cities with=1)</td>
<td>1</td>
<td>.136**</td>
<td>.069</td>
<td>.175**</td>
<td>-.073</td>
<td>.172**</td>
<td>.064</td>
<td>.061</td>
<td>.072</td>
</tr>
<tr>
<td>Pop 90</td>
<td>.136**</td>
<td>1</td>
<td>-.046</td>
<td>-.017</td>
<td>.004</td>
<td>.991**</td>
<td>-.056</td>
<td>.02</td>
<td>.092</td>
</tr>
<tr>
<td>Pop Ch 90-00</td>
<td>.069</td>
<td>-.046</td>
<td>1</td>
<td>-.133**</td>
<td>.02</td>
<td>-.039</td>
<td>.099*</td>
<td>0.003</td>
<td>-.083</td>
</tr>
<tr>
<td>Inc 90</td>
<td>.175**</td>
<td>-.017</td>
<td>-.133**</td>
<td>1</td>
<td>-.376**</td>
<td>0.001</td>
<td>.226**</td>
<td>-.01</td>
<td>.003</td>
</tr>
<tr>
<td>Inc Ch 90-00</td>
<td>-.073</td>
<td>0.004</td>
<td>0.02</td>
<td>-.376**</td>
<td>1</td>
<td>-.004</td>
<td>-.163**</td>
<td>-.02</td>
<td>-.043</td>
</tr>
<tr>
<td>White 90</td>
<td>.172**</td>
<td>.991**</td>
<td>-.039</td>
<td>0.001</td>
<td>-.004</td>
<td>1</td>
<td>-.046</td>
<td>.025</td>
<td>.096*</td>
</tr>
<tr>
<td>White Ch 90-00</td>
<td>.064</td>
<td>-.056</td>
<td>.099*</td>
<td>.226**</td>
<td>-.163**</td>
<td>-.046</td>
<td>1</td>
<td>-.01</td>
<td>.007</td>
</tr>
<tr>
<td>Multi-family Ch 90-00</td>
<td>.061</td>
<td>0.02</td>
<td>0.003</td>
<td>-.01</td>
<td>-.02</td>
<td>0.023</td>
<td>-.01</td>
<td>1</td>
<td>.175</td>
</tr>
<tr>
<td>Single-family Ch 90-00</td>
<td>.072</td>
<td>0.092</td>
<td>-.083</td>
<td>0.003</td>
<td>-.043</td>
<td>.096*</td>
<td>0.007</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
We also analyzed the number of ballot measure per city with all of the above variables. We found that all of the same variables are significantly correlated with a stronger magnitude. *This suggests that the greater the number of ballot measures in a city, the stronger the association with population, population change, white population, and income.*

In our database, we coded ballot measures according to whether they were slow- or pro-growth and we coded the result (pass or fail) of the measure. In this analysis we examined the association between measures that were: pro-growth and passed (pro-growth pass), pro-growth and failed (pro-growth fail), slow-growth and passed (slow-growth pass), and slow-growth and failed (slow-growth fail) with all of the community characteristics that were mentioned earlier. Measures that are pro-growth pass and slow-growth fail could be considered as growth promoting policies while pro-growth fail and slow-growth fail might be considered anti-growth policies.

We find that almost all types of measures were positively correlated with population, population change, and white population (except that slow-growth is not associated with population and population change). It appears that cities with larger populations, greater population increases over time, and larger white populations tend to have a large number of different types of ballot measures. This reveals that *there is no dominant type of growth regime occurring in these cities, but instead it is the ballot measure process that is popular.* In addition, slow-growth pass measures are positively correlated with white population change and city income and slow-growth fail measures are positively associated with city income. This suggests that cities with higher incomes tend to have more slow-growth ballot measure activity.

Finally, we examined the possible correlations between individual tools and community characteristics. For the most part, population, population change, and white population were positively correlated with most tools (except other and vote requirement). One of the most interesting result that emerged from this analysis is that vote requirement is positively correlated with change in multi-family housing. Since these are correlations, there is no way to decide whether cities that develop multi-family housing are more likely to use vote requirement as a growth management tool or that vote requirement somehow increases the number of multi-family housing. Another intriguing finding is that urban growth boundaries are positively associated with change in multi-family housing as well as change in single-family housing. This suggests that cities having higher rates of housing construction are also those that use urban growth boundaries as a tool.

To determine if the same associations exist for tools that are adopted, we correlated the result of each tool (tools by pass or fail) with community characteristics. In this analysis, population, population change, and white population were positively correlated with the passage of *commercial/industrial caps, general growth management, and urban growth boundaries.* Vote requirement was adopted more often in cities with larger white
population and higher incomes. Finally, zoning was more likely to be adopted, although only slightly, when city income was higher.

Figure 21. Correlations Between City Characteristics and Growth Management Tools Passed by Voters

<table>
<thead>
<tr>
<th>Commercial/Industrial Caps</th>
<th>Vote Requirements</th>
<th>Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Growth Management</td>
<td>Larger Population</td>
<td>Higher Incomes (not a strong correlation)</td>
</tr>
<tr>
<td>Urban Growth Boundaries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larger Population</td>
<td>Larger White Population</td>
<td></td>
</tr>
<tr>
<td>Faster Population Growth</td>
<td>Higher Incomes</td>
<td></td>
</tr>
<tr>
<td>White Population</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. RESULTS OF SOLIMAR DATABASE ANALYSIS
5. CONCLUSIONS

The "ballot-box zoning" phenomenon that emerged in California in the 1970s and '80s has now become a permanent part of the state's political culture. It is widespread and -- because of publicity associated with ballot measures -- often seems like a primary "driver" of land-use policy in the state.

In fact, growth management ballot measures represent only a small minority of growth management tools and techniques adopted by local governments in California. Our analysis provides insight into three important questions that we will focus on in the conclusion:

1. What types of communities choose to use growth management ballot measures as a tool of land-use policymaking?
2. What types of decisions do voters make when given the choice, and how is this different from the choices that elected officials make?
3. Have these decisions changed over time and are these decisions linked to the economic cycle?

5-1. What types of communities choose to use growth management ballot measures as a tool of land-use policymaking?

First, we reaffirm earlier findings that ballot-box zoning as a political tool is confined only to certain coastal metropolitan areas.

Most ballot activity is focused in the East Bay, the South Bay, and the coastal counties of Southern California. A few counties -- including San Diego, Ventura, and Contra Costa -- have used ballot measures disproportionately.

Second, we conclude that ballot measures have become deeply embedded in the political culture of the communities where they are used, but they have not migrated to many new communities since the 1980s.

Because "ballot measures beget more ballot measures," the use of the ballot to make land-use policy decisions has become more and more common in those communities where it is already used. However, for the most part ballot-box zoning has not migrated to inland areas. Thus, we have found that two distinct political cultures have emerged regarding
land-use policy in California. In coastal areas, major land-use decisions require voter approval; in inland areas, they do not.

Third, we find that even in those areas where ballot measures are deeply embedded as part of the political culture, ballot-box growth regimes are quite place-specific.

For example, in the San Francisco Bay Area, voter-approved land-use policies tend to focus on urban growth boundaries and numerical caps on housing; whereas in Southern California, voter-approved land-use policies tend to focus on downzoning and subsequent voter approval requirements.

Finally, we conclude that communities that have used growth management ballot measures are different from those that have not, but not in the ways that one might expect.

Three community characteristics appear to be associated with both the existence of ballot measures and tools in cities: population, population change, and white population. In other words, cities with larger populations in 1990, greater population change in 1990-2000 and larger white populations are more likely to have at least one growth management ballot measure, are more likely to have larger number of ballot measures, and are more likely to use all tools (except subsequent voter requirement and other).

5-2. **What types of decisions do voters make when given the choice, and how is this different from the choices that elected officials make?**

First, we find that voters choose from the same menu of growth management tools as do elected officials. Local governments in California use a standard and well-known set of growth management tools, though these tools are used in different combinations in different communities. The menu of tools presented to voters in ballot measures is no different than the menu of tools presented to elected officials.

Second, we find that over a 15-year period, tools associated with slow-growth elections have dominated the ballot-box zoning arena in California. Voters have faced many more slow-growth than pro-growth or neutral ballot measures, and voters have approved slow-growth measures more frequently.

Third, we find that there is some evidence that there is a difference between the tools voters choose and the tools elected officials choose. Earlier research found that the tool adopted most frequently by elected officials is infrastructure adequacy; however, this tool is the least popular tool with voters. By contrast, one of the most popular tools among voters – one growing in popularity – is the subsequent voter approval tool, which usurps the power of elected officials and puts more decision-making power in the hands of the voters.

5. **CONCLUSION**
5-3. *Have these decisions changed over time and are these decisions linked to the economic cycle?*

The most popular tools used in ballot-box growth management have changed over time. In the 1980s housing and population caps were more popular than they are now. However, since 1995, urban growth boundaries and subsequent voter approval requirements have become far more popular than ever before. These two tools are much more likely than other tools to be associated with slow-growth elections, and they are much more likely to pass.

Economic cycles are definitely associated with ballot measure activity. There is more growth management ballot measure activity during healthy economic periods. Also, slow-growth measures are much more likely to pass during periods of economic boom and pro-growth measures are more likely to pass during periods of economic recovery (right after a recession). So whenever we enter the next period of economic slowdown, it will be interesting to see whether slow-growth tools such as UGBs and subsequent voter approval requirements remain popular.

5. Conclusion
REFERENCES


