This report focuses on the increasingly widespread concern over the ability of local government to exert sufficient leverage on population, economic, and spatial growth to make a difference in what happens and to do so in a way so as to effect agreed-upon public policies. Concern over the ability of local governments to manage urban growth and change is important for two reasons—for the rapidly growing concern over growth and subsequent costs, and for concern over the ability of local government institutions to actually function effectively in an area where they are usually held responsible. Two issues are addressed in this report. The first is the extent to which the collection of local governments in a metropolitan area is able to manage urban development. The site for the investigation and the principal source of data and observation is the San Jose Metropolitan Statistical Area—Santa Clara County, California. The second issue is the extent to which a single municipality within the metropolitan area can exert management control over development within and at its boundaries. This report is intended as a means for developing testable hypotheses about relationships among key variables determining the ability of local governments in a metropolitan area to affect, in a significant way, urban growth and change. (Author/JM)
LOCAL GOVERNMENT'S ABILITY TO MANAGE GROWTH IN A METROPOLITAN CONTEXT

D. Alesch

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I. INTRODUCTION

In the fall of 1970, Thomas Fletcher, then Manager of the City of San Jose, California, came to Rand's offices in Santa Monica to discuss with several Rand staff persons his deep concern over the problems of rapid urban growth in San Jose and the surrounding metropolitan area. Largely on the basis of that discussion, Rand expanded its Urban Policies Study Program to include an analysis of growth-related concerns in Santa Clara County. This is a report on a portion of that research.

Fletcher was concerned with a number of aspects of rapid urban and suburban growth. He expressed considerable concern about the ability of local government to exert control or management over growth processes. To paraphrase Fletcher's lament, "Every issue I face, every decision I make, has implications stemming from the incredible growth we are experiencing."

This report focuses on the increasingly widespread concern over the ability of local government to manage growth, i.e. to exert sufficient leverage on population, economic, and spatial growth to make a difference in what happens and to do so in a way so as to effect agreed-upon public policies.

Concern over the ability of local government to exert some measure of management over the pace and nature of urban growth is not confined to San Jose and Santa Clara County. It is a fairly widespread phenomenon throughout the United States, including such places as Boulder, Colorado, where a Growth Study Commission is looking into the matter of how to manage growth rates, and Anaheim, California, which is attempting to devise means for managing impending development of remaining underdeveloped land areas. It includes persons and officials in hundreds of rapidly growing areas across the nation and even officials at the state level. In Oregon, for example, the need and desirability of further growth is being given a long, hard look, and answers are being sought to the question of how to control growth.
WHY THIS IS AN ISSUE

There are two basic and important reasons for attempting to understand the extent to which local governments can manage urban growth and development patterns. The first centers on the extent to which matters related to growth are becoming issues of major public concern. The second is a more pervasive and, ultimately, a more important matter — the ability of local governments to effect that for which they are held responsible.

Concern Over Growth

There is a long-standing concern about the suburb as a physical artifact and social phenomenon on the part of many urbanists, planners, and administrators. Public officials and critics claim that the low density, sprawling development typifying most suburban growth since World War II generates a number of important problems. Among these are the contentions that suburban sprawl has generated increased economic and social segregation, part of which is a phenomenon, not only of suburbanization, but also of political balkanization. Indications are in Santa Clara County that there is increasing segregation by age, ethnicity, and income.* Segregation is perhaps acceptable if it is a matter of choice by all those involved, but it appears that the existing segregation in Santa Clara County is not a matter of choice for those who have been excluded.

Other allegations about suburbanization are that the spread city development has withdrawn many of the best lands from agricultural uses and turned them into ugly suburbs. Indeed, much of the Santa Clara County was farmed intensively and in orchards prior to the onslaught of development. It is alleged, too, that low density development requires grossly inefficient expenditures for the provision of public services, something in which many residents will concur, but one in which there is not much in the way of definitive evidence either way.

*These indications are from as yet unpublished analysis of Census data by Sinclair Coleman and Barbara Williams of the Rand Corporation.
The issue of the high costs of suburbanization is on the minds of many residents of suburban areas and is another reason for the importance of this subject area. Now, more than ever, growth means higher taxes to a large number of citizens. Every new subdivision means greater pressure on schools and the possibility of double or even triple sessions or expensive new school buildings. It would appear that, in the view of many taxpayers, there are no economies-of-scale in residential development -- that most new development does not pay its way. Whether this is or is not actually the case, local residents are often quite vociferous in their attempts to preclude new development and voting to strike down proposed bond issues on the basis of their beliefs.

There is, indeed, considerable disparity in wealth among local jurisdictions in Santa Clara and other counties, frequently based on nothing more than local municipal boundaries drawn carefully to capture property tax base for one jurisdiction.

A third set of concerns about growth stems in large part from increased and more widespread concern for the natural environment. Such interest and concern has led to attacks, not so much against the pattern of urban development, but against more growth itself.

Citizens complain that the very amenities they sought in moving to small towns and suburbs are being diminished by the influx of more persons like themselves. Environmentalists decry sprawling, low density development and its impacts on air quality, the aesthetics of the countryside, and the land and water. Local officials are often hard pressed to keep pace with the demand for services from a vocal, yet often parsimonious, electorate.

Concern Over the Ability to Control

The complaints fall most often on the ears of local government officials. Citizens view them as having primary responsibility for development control, and it is the local officials who bear the brunt of invective. Even in the eyes of the sophisticated who realize the importance of migration patterns, national economic trends, and the impacts of federal spending and federal leverage on private spending,
municipal government is still seen frequently as the villain in the
development process, caving in to developers' demands and thus, rather
literally, paving the way for rampant growth of spread city.

There is a very basic question that must be addressed in this
report on urban and suburban growth control. It is the extent to which
local officials really can do anything about managing or controlling
growth. It may be that the forces generating the growth are simply
too powerful for local institutions to be able to cope with them
effectively. If this is the case, then something must be done. Either
the locus of responsibility must be changed or the processes and
structure of government must be changed so that those who are held
responsible can act effectively. This is a matter of continuing con-
cern, but it is particularly important at this time, given the thrust
of the current Administration's policies to place responsibility for
a greater share of governance on the shoulders of local government.

Thus, concern over the ability of local governments to manage
urban growth and change is important for two reasons — for the rapidly
growing concern over growth and subsequent costs, and for concern over
the ability of local government institutions to actually function
effectively in an area where they are usually held responsible.

RESEARCH OBJECTIVE AND APPROACH

Objective

Two issues are addressed. The first is the extent to which the
collection of local governments in a metropolitan area — the system
of local governance — is able to manage urban development. The site
for the investigation and the principal source of data and observation
is the San Jose Metropolitan Statistical Area — Santa Clara County,
California. The second issue is the extent to which a single municipa-
ality within the metropolitan area can exert management control over
development within and at its boundaries.

Development, or developmental outcomes, is defined here to include
the spatial distribution of uses of the land, the tempo of physical
growth, and the absolute amount of physical, population, and employment
growth. By "ability to manage," we mean the ability to exert sufficient leverage over the processes of development to be able to determine, in large measure, developmental outcomes that are in accord with objectives, values, and standards expressed through political processes.

This is not meant to be a rigorous test of hypotheses. It is largely a hypothesis building effort and an attempt to build a case by which to argue those hypotheses on the basis of evidence. A single, ex post case study of the urban development process in which interpretations are made and casual relationships are inferred is inadequate for genuinely rigorous hypothesis testing. This report is based on bits and pieces of data, interpretation of anecdotes, evaluation of legal provisions, and observations of institutional behavior. It is intended as a means for developing testable hypotheses about relationships among key variables determining the ability of local governments in a metropolitan area to affect, in a significant way, the pattern, tempo, and characteristics of urban growth and change.

If San Jose and Santa Clara County were the only places in the nation where there was concern about sprawling development and were the only places where it occurs, then a researcher would rightly look at the specific institutions and activities in the County to determine the causes that led to sprawl and the reasons for difficulty in controlling it. The fact is, however, that the development patterns in Santa Clara County are very much the same as post-war development patterns across the nation. Spread city is not unique to San Jose; it is the dominant pattern. Given this, the objective of this research is to try to develop an understanding of the processes of urban development sufficiently to provide useful information on the extent to which local government can influence the rates of population and economic growth and the spatial distribution of such growth, how they can exert that influence, and where reforms appear to be needed to change the likely outcomes of development.

To do that requires that one look into the motivations of developers, the forces that motivate local government, how those forces change through time because of circumstance, and other institutional
and behavioral characteristics of the development system.*

The underlying objective of the research, therefore, is to attempt to develop an understanding of how the system works -- of the relationships among the parts that tend to result in urban sprawl, particularly in places of rapid growth. Once those relationships are understood, it will be possible to know the extent to which local governments can actually affect growth patterns and rates, and it will be possible, then, to provide useful advice regarding strategies for management control.

The Research Approach

The approach is primarily behavioral. We are interested in why governments and other actors in the development process act in a way that tends to result in sprawl and its associated problems. It is one thing to have the legal powers to attempt to manage development; it is quite another to be able to use them effectively. Therefore, we have looked at the various local actors in the development process in an attempt to understand how they relate to one another and what shapes their actions. We reasoned that this approach would be more likely to produce useful results than the more traditional approach of assessing such policy instruments as zoning, subdivision control, and annexation directly.

We reasoned that there is an urban development system that successfully generates urban land used for rapidly growing populations. The problem, it appears, is not that the development system doesn't work at all, but rather that the system produces a mix of outputs, some of which are highly desirable and others of which are not. On the positive side, the urban development system has worked sufficiently well in San Jose and Santa Clara County to provide highly satisfactory

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housing for most of the rapidly growing population. It has also provided them with reasonably convenient shopping, and somewhat less reasonably located employment centers (from a standpoint of ease and time of commuting).

On the negative side -- at least from the perspective of some -- the development process has resulted in a situation where almost one-half of the City of San Jose's urban area is vacant. The vacant land consists of land parcels of varying size bypassed, or leapfrogged, in the process of development. There is an uncomfortable sameness in much of the development in much of the Santa Clara Valley, as well as an overall, unfinished appearance. The undesirable products of the land development process as it worked in San Jose were, from the perspective of local planners and managers, the sprawl, the lack of an urban focus in the vastness of the Valley's development, a sterility born of similarity among developments, and the rapid bulldozing of the famed orchards of the Santa Clara Valley. Their concern for the aesthetics was coupled with a deep-seated, uncomfortable feeling that the leapfrogging and low density development results in an unwarranted high cost of providing basic urban services -- costs that were somehow hidden and would eventually result in deep fiscal trouble for the City.

As mentioned earlier, if these outcomes of the development process were somehow unique to San Jose and if the concerns were also unique to San Jose, we would rightly begin with an analysis of what makes San Jose different from other places, going on the assumption that there would be something that the City did or did not do that was different in kind or in order of magnitude from what was done in other places.

Our intent, therefore, has been to attempt to develop an understanding of the urban development system, to identify the actors, and to learn about their incentive structures in an attempt to understand why the system produces what it does. Only when the development system is understood will it be possible to identify points in the process where leverage can be exerted to alter the outcomes of the system.
We have taken the position that one must understand how a system works if one is to be able to effect changes in that system efficiently and with reasonable assurance of the likely consequences of those changes. Our view is that the market has worked pretty well in Santa Clara County insofar as it has provided the necessary private urban services for those who have moved there. The expressed concerns of public officials with whom we spoke is with the form in which they have been produced: the sprawl, the sameness, the leapfrogging, the exclusion, and the externalization by some residents of private costs to the shoulders of all residents through government and ultimately through the property tax.

The objective, therefore, is to change the market slightly, perhaps by a reordering of incentives for various actors, so that the development system more or less automatically generates the desired outcomes. In the purest terms, we are seeking to develop a self-policing system where normal interplay in the market place will result in development patterns that are acceptable. At the very least, if regulation by local government (or by some other level of government) is necessary, we want to know where and how such regulatory leverage might be applied most effectively to bring the system to heel. Beyond that, we seek the means by which local government can exert influence over the total rate of growth.

Thus far, the approach has been described in simplistic terms, as though there were only one government attempting to "control" or to regulate the urban development market system. As everyone knows, the case is far more complex than that. Santa Clara County contains a county government, 16 municipal governments, a host of school districts, and numerous special district local governments. Each, to a greater or lesser extent, is in a position to exert some leverage on the development system. The situation is complicated by the addition of state and federal regulations, actions, policies, and expenditures.

The existence of so many governments, each with at least the potential for impacting development, means that the system has a large number of control mechanisms, none of which is really in control,
many of which have policies in contradiction to the others, and each of which provides its own set of decision rules for the system. Moreover, to complicate the process further, the system to be guided has itself, a set of decision rules and incentives that shape its behavior.

One note of caution relates to our intent to generate policy recommendations to federal, state, and local governments concerning the management of growth. We have focused on developing an understanding of interrelationships and incentives so that we can identify the extent to which local governments can have an impact. This is a necessary prior step to developing recommendations. We have yet to develop a set of plausible alternative actions and reforms and to assess the likely consequences of implementing one or another of them.

SUMMARY OF CONCLUSIONS

As I have indicated previously, this is not a report on a rigorous, replicable analysis of the capability of local governments to manage urban development. It is an attempt to understand the forces that cause officials to act as they do concerning development and to develop hypotheses about the forces that limit the ability of governments, individually and collectively, within the metropolis to manage growth and development effectively.

There was little interest in controlling growth and development during the boom period in the San Jose metropolitan area, but this does not seem to be unique to either the time or to persons and local governments in Santa Clara County. While it is true that there is greater concern with the natural environment now than there was a decade ago, it seems equally true that concern about being able to manage growth is a function of the stage of urban or suburban development in a place. In the early stages of development, there are fortunes to be made by landowners and developers. Gradually, as they subdivide and build homes, they are replaced by those whose fortunes are tied to keeping more persons like themselves out, and concern for limiting growth tends to replace concern for fostering growth.

Now that there is large and growing interest in Santa Clara County, and comparable places elsewhere, in limiting growth, there
are several major obstacles to managing growth effectively on an area-wide basis. First, many of the pressures for growth are largely exogenous to the local metropolis: national and regional migration trends, federal expenditures and policies, \textsuperscript{1} the condition of the economic base, consumer tastes, and so forth. Second, the metropolitan area in Santa Clara County and elsewhere tends to have many and varied local governments and to have the local government policy instruments that could be employed to manage growth diffused among them. There is no single institution or set of institutions capable of providing the means for obtaining agreement on a growth policy for the area and for being able to effect the policies through the actions of individual local governments.

The political balkanization and fragmentation appears to be caused in large part by the system of local government finance, which provides strong incentives for the creation of many small units of government in order to protect tax base and, through zoning and other means, to insulate one's self from problem populations associated with high governmental costs. The balkanization into many little governments, some of which are well off and homogeneous and others of which are more polyglot and tend to be less well off, sets up a situation where there are deep differences about the desirability of continued growth among the communities. In short, there are strong incentives for dysfunctional competition among municipalities which makes cooperation on important matters difficult at best, including cooperation on matters of controlling growth.

Despite the powerful forces acting against cooperation concerning growth management, there has been some progress of late, often grudgingly on the part of some participants, toward developing a set of institutions in Santa Clara County for being able to exert at least a minimal level of management over growth. The progress has been made despite, rather than because of, the incentives influencing municipal behavior. Whether it will be successful in the County is a matter to be determined in the next few years as the institutions meet important challenges.
Local government officials in Santa Clara County are attempting to create the means for areawide control of growth because it has become apparent to them that the urban system to be managed has far outstripped the ability of traditional means of governance to exert effective control. The main powers for managing urban development still reside with municipal governments. While the cities have many of the legal powers to manage growth within their boundaries, they have been unable, for both institutional and behavioral reasons, to do much to control development at the urban fringe. Moreover, the metropolis is larger than any one of the cities within it. No one city, even relatively dominant San Jose, finds that it can exert sufficient leverage on the urban system to generate development patterns and tempo generally deemed desirable. Because the cities in the metropolitan area find themselves tending to go in different directions from one another on matters pertaining to growth, depending largely on their fiscal and tax base situations, the aggregation of controls imposed by the cities does not lead to effective management over development in the metropolitan area. In short, it has not worked to leave development control to the cities within the metropolitan area. They are simply unable to exert sufficient leverage over the system development processes.
II. LIMITATIONS ON AREAWIDE CONTROL OF GROWTH AND DEVELOPMENT

A metropolitan area in the United States typically consists of a host of local governments, none of which has legal or seldom even practical dominance over the others in terms of managing metropolitan growth. Each political unit is an individual actor with powers and responsibilities relating to growth and development.

This section addresses the issue of the extent to which such a menage of governments can work together effectively to control urban growth and development. We refer to the collection of governments within a metropolitan area as the "system of local governance," for it is the means by which governance is exercised within the metropolitan area -- excluding the roles of state and federal institutions.

The reason for looking at ability of this system of local governance to manage growth is that growth is an areawide matter. Political boundaries within a metropolitan area do not separate places of growth from places of no growth. The entire area is a single, highly interrelated system. There is little point in looking first and only at individual jurisdictions, the boundaries of which seldom have a relationship to the urban system with which one is concerned. Indeed, the boundaries of the metropolitan area may not include all the salient parts of the urban system. In the case of Santa Clara County, one might argue that the metropolitan area as defined is simply a part of the total Bay Area metropolitan area, comprising the San Francisco-Oakland and San Jose metropolitan areas. For our purposes, however, the San Jose metropolitan area, which is contiguous with Santa Clara County, appears sufficiently large to encompass an integral subsystem of the larger metropolitan area and is an appropriate subject for analysis.

The objective of this section, then, is to look at the forces and relationships that impact on the ability of the local governments in the county to act collectively to manage growth. Three major sets
of factors are examined: exogenous forces, diffusion of public authority, and the struggle for tax base. Exogenous forces are those variables that are largely outside the control of local governments and, quite possibly, outside the control of state and federal governments in a free society. Diffusion of authority is the result of political balkanization and fragmentation. The struggle for tax base relates to the matter of competition among local governments to obtain a favorable ratio of assessed value to governmental costs within their boundaries. Each of these forces reduces the ability of local governments in the area to act collectively to control sprawl effectively.

EXOGENOUS FORCES AFFECTING GROWTH AND DEVELOPMENT

There are a number of factors that shape growth rates and development patterns which are largely outside the control of local government officials. These include the direction of economic growth within a larger urban system, basic composition of the economic base, federal procurement, other development-related federal policies, consumer preferences, and changing attitudes toward growth.

We do not mean to imply that local officials have no control over the variables listed above. The governments of an area can certainly make it known that they want certain kinds of industries or don't want other kinds. They can take some steps to activate or curtail movement in those directions at the margin. Having a powerful Congressman from one's district is certainly no hindrance in attracting federal procurement, helping to keep a military base open or in helping to get it closed, or garnering federal projects.* Municipalities lobby, too, and sometimes with considerable effectiveness. Nevertheless, the actions of local governments with respect

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* A model of central city decline designated by E. Keeler and W. Rogers (Appendix D) in A Classification of Large American Urban Areas (The Rand Corporation, R-1246-NSF, May 1973) uses Congressional power as a significant explanatory variable in the structural equation describing metropolitan growth.
to these variables is largely marginal, with the basic thrust of national and regional trends exerting their force and impacts beyond the ability of local government to control them.

The Direction of Growth in the Bay Area

Santa Clara County lies at the south end of San Francisco Bay. The County's dominant features are the tidal flats and channels at its northern boundary, constituting the southernmost extremes of San Francisco Bay. To the east and north are ranges of hills -- mountains to Easterners -- that are golden brown in the summer and lush green in the winter and spring. Lying in the center of the County is the hour-glass-shaped Santa Clara Valley, opening onto the Bay and joining with the flat shore areas both east and north toward Oakland and west and north toward San Francisco. For many years, the Valley was filled with orchards and vineyards. San Jose, then a relatively small city, was an agricultural trade center; its small central city shopping area still reflects this past.

In the past two decades, the County and San Jose have grown extremely rapidly, with housing tracts replacing orchards and with the normal California haze developing, increasingly, the characteristics of smog. After almost thirty years of rapid growth, the northern half of the County appears, as do so many other suburban areas across the nation, as a surrealistic checkerboard with squares of development interspersed with leapfrogged, vacant land. There is almost overwhelming traffic congestion during rush hours on the main freeways linking the valley with urban development on both sides of the Bay.

As illustrated in Table 1, Santa Clara County grew from 175,000 persons in 1940 to 1,066,000 in 1970, a six-fold increase during the thirty year period. The City of San Jose's growth was comparable, but by no means accounted for the bulk of the County's growth. Through a policy of inviting growth and annexing land to encompass growth at its periphery, San Jose grew from 68,000 in 1940 to almost 500,000 in 1970, increasing its land area commensurately.
Table 1
GROWTH IN SAN JOSE AND SANTA CLARA COUNTY, 1940-70

<table>
<thead>
<tr>
<th>SANTA CLARA COUNTY</th>
<th>CITY OF SAN JOSE</th>
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<tbody>
<tr>
<td></td>
<td>Population As A % Of Population In Previous Period</td>
</tr>
<tr>
<td>Population (000's)</td>
<td>Population (000's)</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>1940</td>
<td>175</td>
</tr>
<tr>
<td>1950</td>
<td>291</td>
</tr>
<tr>
<td>1960</td>
<td>642</td>
</tr>
<tr>
<td>1970</td>
<td>1,066</td>
</tr>
<tr>
<td>Total change (%)</td>
<td>609%</td>
</tr>
</tbody>
</table>

Source: 1970 California Roster, based on the U.S. Census of Population
Because of its climate and agricultural base, Santa Clara County and San Jose had a basis for growth in and of themselves. It must be said, however, that it is the location of this Metropolitan Statistical Area within the larger Bay Area metropolis that has been the primary force generating the rapid growth experienced during the past three decades.

The western portion of the county developed suburban characteristics first. It was a natural extension of growth southward down along the Bay shore from San Francisco through San Mateo County to Palo Alto, which is in Santa Clara County.

Palo Alto, home of Stanford University and a center of the tremendous burgeoning of high technology industry in the immediate vicinity, provided opportunities for comfortable living on extremely aesthetic home sites in the hills adjoining the flat shoreline areas. Given rail transit and the relative ease of commuting to San Francisco or to employment centers just south of San Francisco by automobile, the area was a natural for growth.

Given the economic growth of the Bay Area generally, a variable exogenous to control by Santa Clara public officials, it is only natural that fairly rapid growth took place in Santa Clara County. Except for the narrow shore areas and the Santa Clara Valley, San Francisco Bay is ringed with hills. Growth in the metropolitan Bay Area has taken place in flat areas. In some instances, such as Walnut Creek and Livermore, the growth has skipped beyond the hills through passes and tunnels. There was no need for tunnels or passes on the way to San Jose. The Nimitz and Bayshore Freeways provided quick, easy access to flat, relatively cheap land for industry and housing. The explosive growth was a product of a respectable rate of Bay Area growth, most of which occurred in the south end of the metropolitan area because that is where the space was.

When viewed from this perspective, it is possible to envisage Santa Clara County as a giant suburb of the metropolitan area to the north -- Oakland and San Francisco. Employment centers appear to have moved down both shorelines, from Oakland and from San Francisco, and from the high technology centers at Palo Alto and at Sunnyvale.
Because it is relatively easy, or has been in the past, to commute along the freeways running north in both directions to employment centers, residential development appears to have jumped ahead of industrial development down into San Jose. San Jose, centrally located between the two flows of employment down the shores, has been more of a residential than an employment center, but with the addition of such major employers as IBM to its roster of industries, industrial growth has reached the south end of the Bay and San Jose. If sufficient vacant land is still available in large enough and cheap enough parcels, it may develop more of a proportional share of industrial base within the County than it now has.

Composition of the Economic Base

For a variety of reasons, Santa Clara County has become a center for high technology industry. One important reason is Stanford University, which acted as a spawning ground for small, high technology industries and which generated and attracted an extremely talented work force. This, however, was insufficient by itself. Many other university centers in the Country have, or could have, served in similar capacities. Coupled with the educational and research center in the northwestern part of the County was the beauty and climate of the area. The hills around Palo Alto and throughout the County are incredibly pleasant places to live and work. Moreover, as the saying goes, the entire product of a week's work in many of these firms can be carried in the palm of one's hand. Transportation costs of the final product are not very important, therefore, to overall cost structure and the remoteness of the location with respect to the nation is not a critical factor.

The extreme growth of the high technology industries in the past two decades, coupled with the massive employment by Lockheed in Sunnyvale, was an important contributor to the growth of the Bay Area generally, and, because of the location, particularly the growth of Santa Clara County.

Over the past decade, the Santa Clara County economy has diversified. Employment in food and kindred products and in agriculture has,
of course, diminished in importance as houses have replaced fruit
trees. The relative dominance of high technology and defense industry
has also diminished somewhat from its earlier dominance as the economy
has diversified. Nevertheless, one cannot overlook the very great
importance of military procurement spending in the County, both as
a force impelling the initial rapid growth and currently as a mainstay
of the area's economy.

Federal Procurement Policies

Federal military procurement is closely linked with the initial
burst of rapid growth of Santa Clara County and with the composition of
its economic base, as well as with its continued prosperity. Although
diminished somewhat in relative importance, it remains a major and
massive element in the County's economy. Department of Defense
expenditures in Santa Clara County were over one billion dollars
in FY 1970. This was two-thirds of total federal expenditures in the
County that year. The figures employed here may not reflect actual
payrolls in the County for a variety of reasons, but, even accounting
for adjustments in the total dollar volume going into the County, it
is clear that defense expenditures did much to impel the growth of
the County and that even today they are a very important element of
the economy.

Table 2 lists federal expenditures in Santa Clara County by
agency for FY 1968 and FY 1970. The data indicate that federal
expenditures in the County for FY 1970, including selected pensions,
but excluding mortgage insurance, amounted to almost $1500 per
capita—an amount certain to buoy almost any economy.

Other Federal Policies and Expenditures

There are other federal policies and expenditures, in addition
to those linked directly to defense procurement, that have had
apparent impacts on the growth rates and development patterns in
Santa Clara County and in other metropolitan areas across the nation.

An illustration of another federal force shaping the rate of
growth of this particular locale is highway expenditures. We have
Table 2
FEDERAL EXPENDITURES IN SANTA CLARA COUNTY
FISCAL 1968 and 1970, BY AGENCY

<table>
<thead>
<tr>
<th>Agency</th>
<th>FY 1968</th>
<th>FY 1970</th>
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<tr>
<td></td>
<td>Amount (000's)</td>
<td>Amount (000's)</td>
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<tr>
<td>Dent. of Agriculture</td>
<td>4,330.1</td>
<td>14,380.1</td>
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<td>Dent. of Commerce</td>
<td>514.4</td>
<td>864.5</td>
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<tr>
<td>Dept. of Defense</td>
<td>1,137,361.0</td>
<td>1,067,576.0</td>
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<td>Dept. of HEW</td>
<td>161,392.6</td>
<td>231,843.0</td>
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<tr>
<td>Dept. of HUD</td>
<td>15,404.8*</td>
<td>1,334.6*</td>
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<tr>
<td>Dept. of Interior</td>
<td>2,339.8</td>
<td>3,116.8</td>
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<tr>
<td>Dept. of Justice</td>
<td>.1</td>
<td>81.5</td>
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<tr>
<td>Dept. of Labor</td>
<td>5,170.5</td>
<td>8,022.9</td>
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<td>Post Office Department</td>
<td>27,432.6</td>
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<tr>
<td>Department of State</td>
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<tr>
<td>Department of Transportation</td>
<td>46,779.1</td>
<td>13,363.1</td>
</tr>
<tr>
<td>Treasury Department</td>
<td>22,750.4</td>
<td>27,117.5</td>
</tr>
<tr>
<td>Agency for International Devel.</td>
<td>3,913.6</td>
<td>1,808.7</td>
</tr>
<tr>
<td>Amer. Battle Monument Comm.</td>
<td>.4</td>
<td>--</td>
</tr>
<tr>
<td>Atomic Energy Commission</td>
<td>13,631.1</td>
<td>10,517.8</td>
</tr>
<tr>
<td>Civil Service Commission</td>
<td>11,145.7</td>
<td>14,599.6</td>
</tr>
<tr>
<td>General Service Administration</td>
<td>3,817.1</td>
<td>12,058.1</td>
</tr>
<tr>
<td>Interstate Commerce Commission</td>
<td>.5</td>
<td>--</td>
</tr>
<tr>
<td>NASA</td>
<td>75,825.5</td>
<td>78,742.1</td>
</tr>
<tr>
<td>National Foundation of Human Arts</td>
<td>49.7</td>
<td>282.1</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>8,822.7</td>
<td>11,645.3</td>
</tr>
<tr>
<td>Office of Economic Opportunity</td>
<td>3,109.2</td>
<td>1,685.4</td>
</tr>
<tr>
<td>Office of Emer. Plan(Preparedness)</td>
<td>1.9</td>
<td>--</td>
</tr>
<tr>
<td>Peace Corps</td>
<td>406.0</td>
<td>1.6</td>
</tr>
<tr>
<td>RR Retirement Board</td>
<td>3,368.3</td>
<td>3,855.0</td>
</tr>
<tr>
<td>Selective Service System</td>
<td>126.6</td>
<td>155.7</td>
</tr>
<tr>
<td>Small Business Administration</td>
<td>858.7</td>
<td>--</td>
</tr>
<tr>
<td>TVA</td>
<td>129.6</td>
<td>358.7</td>
</tr>
<tr>
<td>U.S. Information Agency</td>
<td>222.7</td>
<td>143.9</td>
</tr>
<tr>
<td>Veteran's Administration</td>
<td>116,700.9</td>
<td>62,747.0</td>
</tr>
<tr>
<td>County Total</td>
<td>1,665,636.4</td>
<td>1,598,539.9</td>
</tr>
</tbody>
</table>

* Does not include FHA mortgage guarantee funds.
** Does not total 100% due to rounding and omissions of minor expenditures.
Source: Federal Outlays in California, Office of Economic Opportunity.
not examined the highway issue in detail for Santa Clara County,* largely because it has been examined by others to a considerable extent for other places. It is almost trite, at this point in time, to point out that the Interstate Highway System, including its intrametropolitan segments, has had a powerful impact on the growth of suburbs and on the sprawling out of the urban population. Regardless of how congested the Bayshore and Nimitz Freeways are at rush hour, they have, in no small way, contributed to the rapid growth of Santa Clara County and San Jose by making possible relatively long commutes at low direct costs to residents. This has enabled workers to spread out into the single family detached housing that covers the northern half of the Santa Clara Valley and has made industrial firms far less reliant on rail and water transport than ever before.

The impact of highway development, in contrast to the relatively paltry contributions to mass transit, have had a fairly obvious impact on the shape of metropolitan areas. More subtle, yet just as powerful in their effect on that shape, are federal tax policies that have facilitated the sprawling, single family characteristics of the Santa Clara Valley.

R. E. Slitor, consulting to Rand, has addressed the issue of the impact of federal income tax provisions on the pattern of land development in metropolitan areas, including, specifically, Santa Clara County. He reports that the major tax factor encouraging and supporting decentralization trends and sprawl in Santa Clara County is the so-called tax subsidy for home ownership. This consists of the income deductibility of mortgage interest and property tax, together with the exclusion of imputed rental value.

The deductions of both property tax and mortgage interests are special benefits for home owners because they constitute basic housing costs which are deductible. Tenants do not receive comparable deductions for the property tax and mortgage interest costs incorporated in their rental payments.

*See, however, B. Williams, St. Louis: A City and Its Suburbs, The Rand Corporation, R-1353-NSF, August 1973, where highway impact is analyzed for that area.
Recent studies of the federal subsidy programs, both direct and indirect via the tax structure, estimate the tax savings to home owners, based on the deductibility of mortgage interest and property taxes on owner occupied homes at $5.7 billion on a nationwide basis in FY 1971.*

The San Jose SMSA share of this $5.7 billion would amount to about .5325 percent or $30.35 million annually. Of this amount, about $14.91 million is due to mortgage interests deduction and about $15.44 million to the property tax deduction.

Slitor reports further that the combined effect of these tax benefits has been estimated to decrease housing costs by about 13.75 percent and increase housing consumption by some 20 percent in the aggregate and more in the middle and higher income brackets. **

Table 3 is reproduced from working documents prepared by R. Slitor for Rand's Urban Policies Study Program and is a synopsis of the provisions and effects of tax policies on Urban Development patterns in Santa Clara County.

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** Henry Aaron, "Income Taxes and Housing," The American Economic Review, Vol. IX, No. 5, December 1970, pp. 802-803. The 20 percent estimated is based on the assumptions that the mean applicable marginal income tax rate of home owners is 22 percent; the combined mortgage interest and property tax deductions along with exemptions of imputed rent amount to 62.5 percent of gross rental value. This combination of circumstances results in a net reduction in housing costs of 13.75 percent. With a price elasticity of the demand for housing estimated at -1.5, the resulting increase in the demand for housing at a given pre-tax cost is 20.625 percent.
Table 3
BRIEF RECAPITULATION OF ESTIMATES OF ANNUAL TAX BENEFITS
SAN JOSE SMSA
(Recent or Current 1973 Levels)

<table>
<thead>
<tr>
<th>Description</th>
<th>($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tax benefits for home ownership</td>
<td></td>
</tr>
<tr>
<td>a. Deductibility of mortgage interest</td>
<td>$14.91</td>
</tr>
<tr>
<td>b. Deductibility of property tax</td>
<td>15.44</td>
</tr>
<tr>
<td>c. Total</td>
<td>$30.35</td>
</tr>
<tr>
<td>2. Accelerated depreciation for rental housing</td>
<td>1.36</td>
</tr>
<tr>
<td>3. Accelerated amortization for rehabilitation expenditures for low and moderate income rental housing</td>
<td>.12</td>
</tr>
<tr>
<td>4. Capital gain tax benefits for real estate</td>
<td></td>
</tr>
<tr>
<td>a. Individuals</td>
<td></td>
</tr>
<tr>
<td>real estate</td>
<td>9.32</td>
</tr>
<tr>
<td>land only</td>
<td>2.80</td>
</tr>
<tr>
<td>b. Corporations</td>
<td></td>
</tr>
<tr>
<td>real estate</td>
<td>.96</td>
</tr>
<tr>
<td>land only</td>
<td>.29</td>
</tr>
<tr>
<td>c. Total</td>
<td></td>
</tr>
<tr>
<td>real estate</td>
<td>10.28</td>
</tr>
<tr>
<td>land only</td>
<td>3.09</td>
</tr>
<tr>
<td>5. Tax deferment and alternate exemption of unrealized capital gains transferred to heirs by decedents</td>
<td></td>
</tr>
<tr>
<td>real estate</td>
<td>5.86</td>
</tr>
<tr>
<td>land only</td>
<td>1.80</td>
</tr>
<tr>
<td>6. Tax incentives for commercial and industrial development</td>
<td></td>
</tr>
<tr>
<td>a. Investment credit</td>
<td>20.77</td>
</tr>
<tr>
<td>b. Accelerated depreciation on commercial and industrial buildings</td>
<td>2.66</td>
</tr>
</tbody>
</table>
Table 3 (continued)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. ADR depreciation (20 percent optional shortening of 1962 guideline lines)</td>
<td>$12.78</td>
</tr>
<tr>
<td>d. Total a, b, and c</td>
<td>$36.21</td>
</tr>
<tr>
<td>7. Special amortization provisions</td>
<td></td>
</tr>
<tr>
<td>a. Pollution control facilities</td>
<td>.08</td>
</tr>
<tr>
<td>b. Railroad rolling stock</td>
<td>.93</td>
</tr>
<tr>
<td>c. Total a and b</td>
<td>1.01</td>
</tr>
<tr>
<td>8. Financial institutions: bad debt reserve allowances in excess of actual average loss experience</td>
<td>2.30</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>$87.59</td>
</tr>
</tbody>
</table>

Prepared by R. E. Sli-or
### Table 3

**TAX EFFECTS ON URBAN GROWTH: SAN JOSE**

#### Summary Sheet

<table>
<thead>
<tr>
<th>Tax Factor</th>
<th>Effect on Urban Growth Process</th>
<th>Estimated Dollar Amount of Annual Benefits for San Jose SMSA</th>
<th>Estimated Magnitude of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tax benefits for home ownership</td>
<td>Encourages home ownership, &quot;over-housing,&quot; and more expansive use of land; therefore, increases sprawl and decentralization.</td>
<td>Tax savings to home owners of $30.35 million annually of which $14.9 million is for mortgage interest and $15.44 million is for property tax deductions.</td>
<td>Increase in housing consumption by an estimated 20 percent in the aggregate; by more in the middle and high income brackets. Twenty percent overinvestment in housing (including land).</td>
</tr>
<tr>
<td>2. Accelerated depreciation for rental housing</td>
<td>Increased housing consumption.</td>
<td>Tax savings of $1.36 million annually.</td>
<td>Increase in rental housing consumption by an estimated 12 percent. Some contribution to sprawl due to consumer preference for low-rise type rental housing.</td>
</tr>
<tr>
<td>3. Accelerated amortization for rehabilitation expenditures on low and moderate income rental housing</td>
<td>Encourages and provides financial assistance for rehabilitation of eligible rental housing.</td>
<td>Estimated tax savings of $.12 million annually.</td>
<td>Addition to rehabilitation outlays on eligible rental units of about double the estimated tax savings.</td>
</tr>
</tbody>
</table>
Table 3 (continued)

<table>
<thead>
<tr>
<th>Tax Factor</th>
<th>Effect on Urban Growth Process</th>
<th>Estimated Dollar Amount of Annual Benefits for San Jose SMSA</th>
<th>Estimated Magnitude of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>d. Accelerated depreciation formulas&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Stimulates additional commercial construction and industrial plant and equipment. Although no tax differential in favor of suburban development, accelerated depreciation assures tax shelter features or leveraged investments in suburban shopping centers and plazas.</td>
<td>$2.66 million on buildings other than rental housing.</td>
<td>Difficult to estimate; may add substantially (some multiple of the cash flow benefits) to tax-shelter type investment in suburban shopping centers.</td>
</tr>
<tr>
<td>c. Optional 20 percent shortening of depreciable lives under 1971 ADR system (on top of 1962 guideline system)</td>
<td>Stimulates additional commercial construction and industrial plant and equipment. Although there is no specific tax differential in favor of suburban development, accelerated depreciation assures tax shelter features for leveraged investments in suburban shopping centers and plazas.</td>
<td>$12.78 million on machinery and equipment.</td>
<td>Additional investment at least equal to cash flow benefits.</td>
</tr>
<tr>
<td>d. Total a, b, and c</td>
<td></td>
<td>$36.21</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup>Benefit shown for buildings only since tenure patterns permit continued current cash flow for buildings; accelerated formulas have been in effect also on machinery and equipment since 1954 but the "catch-up" on older equipment reduces current cash flow benefit; this benefit is not currently regarded as a major tax subsidy.
Table 3 (continued)

<table>
<thead>
<tr>
<th>Tax Factor</th>
<th>Effect on Urban Growth Process</th>
<th>Estimated Dollar Amount of Annual Benefits for San Jose SMSA</th>
<th>Estimated Magnitude of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Special amortization provisions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Pollution control facilities</td>
<td>Encourages and assists older plants in acquiring additional facilities to meet new environmental standards.</td>
<td>.08</td>
<td>Magnitude of effect difficult to estimate. Additional expenditures which result probably at least equal to the dollar amount of tax benefits; may be twice that amount.</td>
</tr>
<tr>
<td>b. Railroad rolling stock</td>
<td>Assists in acquisition of additional railroad freight cars to meet peak industry requirements.</td>
<td>.93</td>
<td></td>
</tr>
<tr>
<td>c. Total a and b</td>
<td></td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>8. Financial institutions: bad debt reserve allowances in excess of actual age loss experience</td>
<td>These provisions now chiefly of benefit to savings and loan associations (and mutual savings banks) increase the equity capital or reserve position of the beneficiary institutions; resulting in an increase in their ability to lend, thus enhancing the supply of home mortgage funds.</td>
<td>2.40</td>
<td>Substantial aid to home building and home buying. Provides additional financial support for suburban growth.</td>
</tr>
</tbody>
</table>

GRAND TOTAL* 67.59

*Note: Where separate item figures are given for all assets, real estate, and land only, the total includes only the item for real estate.

Prepared by R. E. Slitor
Consumer Preferences

The tastes of those moving into Santa Clara County are largely outside the control of local officials. Data from a Rand survey, reported elsewhere in this series of reports, indicate that the majority of household heads like sprawling, large lot development with single family housing.* Those desires are reflecting through market place behavior by migrants and other housing consumers. While this force is largely beyond the ability of local government officials to control, it bears heavily on both the rate of growth within the County and on the pattern of the urban development that takes place. While urban planners and critics may be unhappy with the overall view of San Jose and the Santa Clara Valley, many residents do not share that view. Perhaps it is because their definition of the relevant living area is their neighborhood, whereas the planners' view tends to be the entirety of the Valley. In any event, the respondents to our representative survey have strong preferences for that kind of development that has occurred in the County -- a kind of development pattern that requires a considerable amount of space.

The residents' preferences for open space, yards, and single family housing are made more attainable, as mentioned previously, by federal income tax provisions reinforcing homeownership and facilitating consumption of that kind of housing.

The topography of the area has contributed, too, to the development pattern that has emerged in Santa Clara County and to the segregation of relatively higher income from relatively lower income residents. The Valley is flat, providing sites on which construction costs are relatively low. San Jose, as the former agricultural center, is located centrally with respect to those flat lands. It contains, therefore, a larger proportion of the families with lower incomes.

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than do the communities including portions of the surrounding hills, where construction costs are somewhat higher and where view sites command premium prices. Since most of the Mexican-Americans have low incomes, and also because of San Jose's historical focus on agriculture, San Jose also includes most of the County's Mexican-American population. The flat Valley land also made possible the mass-produced tract housing that is dominant in many areas, yielding the low profile, uniform pattern from either ground or air.

In the case of the forces that shaped the dominant pattern of development in the County, particularly in the flat areas, local officials were again confronted with a set of forces, most of which were well beyond their control. Most consumers want single family, sprawling housing and the developers have been able to provide it. These are powerful market forces against which to expect local officials to prevail, even if they were so inclined. It is clear, however, that local officials were in a better position during the boom years to influence development patterns than they were to influence the rate of growth. Why they did not and how they might have are discussed later in this report.

Changing Attitudes Toward Growth

Coupled with the fact that local officials did not have much control over variables leading to rapid growth and to the sprawling development pattern in the County and in San Jose, is the fact that there was not much pressure on them to try to do so. There are now greater pressures to slow growth and to manage development.

During the postwar boom in Santa Clara County, two forces seemed to be at work to keep officials from trying to limit growth. The first is ideological. It seems clear that "bigger and, therefore, better" was the dominant local government ideology during that period. The ideology seems to have been shared widely throughout the County and indeed, the nation. Second, growth meant big money. Despite the fact that the area's soils and climate were just right for growing crops and provided good incomes from that use, urban uses simply pay landowners more than do agricultural uses. The ideological
leanings of local officials and the capital gains interests of local landowners reinforced one another. The effect was snowballing, rolling over those who cried out warnings about future problems and those who had hoped to retain the idyllic life of the pristine valley.

The scene has changed now. Officials and residents are concerned with the problems of growth and with the many problems generated by rapid growth in the past. There appear to be several reasons for a shift in mood and emphasis. In the past, there was much to gain from rapid development. Now, growing concern for the natural environment and continued concern for one's family environment has shifted local attitudes about growth. The majority of voters -- the new residents in the City and County -- find that their fortunes are tied, not to continued growth as was the case with the landowners, but to keeping out those who would move in to congest the area further and who, by virtue of moving in, would destroy the reasons for which those who are already in the County moved there. In short, when the suburbanites moved in, they shifted the power balance from those who stood to lose from growth. Local attitudes about growth changed, not so much from a conversion of the growth seekers, but from the influx of others with different attitudes about growth.

The concern in many city halls and county offices in Santa Clara County is with how to manage growth if, indeed, it is not with how to stop decline in increases in per capita wealth. This attitude and this concern are shared in other portions of the United States in other metropolitan areas, but it is not a universal concern. There are still counties and cities bent on rapid growth. This poses an important research question: when and how does the concern turn in areas on the urban fringe from one of how to promote growth to one of how to control growth? The importance of the question is evidenced by the observation that cities do not seem to become appropriately concerned with how to manage growth until they are already immersed in the entire set of problems experienced previously by communities that have gone through the same process.
A major reason that local government in the San Jose metropolitan area has been unable to control growth and development in the past is that there are many governments acting largely autonomously, each pursuing what it believes to be in the best interests of its residents. There has been no one governmental institution in charge, and there has been no real mechanism for effecting basic cooperation among local governments needed in order to exercise some control over development.

One must hasten to add that this is a picture of Santa Clara County over the past twenty years. There have been recent changes. Some of those changes were predictable; others were not. In any event, there is a possibility that a new set of institutional relationships being developed in concert by local politicians and administrators may result in a situation where the collectivity of local governments in the County may be able to exercise some control over over-rampant development. These developments are discussed later in this report.
The information related in the following pages is more descriptive of what existed in Santa Clara County for the first twenty years of the growth decades than it is of what has been created in the past two or three.

The San Jose Metropolitan Statistical Area encompasses one county government, 15 municipal governments, 18 special districts, and 47 school districts. This is actually a rather small number of governments for a metropolitan area; many similar size metropolitan areas have far more governmental units, particularly in the East where there are town as well as county governments. But it is not simply the number of local governments that exists in a metropolitan area that creates governmental fragmentation and diffusion.

Diffusion of public authority exists in the metropolitan area in part because there is no single unit of government or institutional mechanism that really exercises any kind of general policy supervision over the other governments in the area. Each of the fifteen municipal governments has been free to act on its own accord with respect to
development policy. The County certainly was not in a position to dictate urban policy for the rest of the governments during the boom period, just as most counties in the nation are not in that position now. Contrary to the opinion of the proverbial man on the street, county government is seldom a higher level than is city government; it is simply a different kind of local government, typically exercising specified urban and non-urban functions in urban, incorporated areas and acting as a competing municipality in unincorporated areas that are on the urban fringe.

In addition to the fact that no one government is really in charge, local governments overlap one another in terms of their geographic boundaries and sometimes even in their functional responsibilities -- at least as the individual jurisdictions perceive them. San Jose, for example, cut across 27 individual school districts -- school districts that include incorporated and unincorporated areas alike and cut across municipal boundaries.

A final important feature of fragmentation is that municipalities -- general purpose local governments -- really aren't as general purpose as they are thought to be. Counties tend to be operationally responsible for providing health and welfare services throughout the county. Special districts are formed for any one of a hundred different reasons. Research shows that they tend not to be in frequent communication with other local governments or, overall, to be very responsive to them.* Furthermore, education has been separated for many years from most municipal governments, being performed instead by school districts, another kind of special district government.

The result of this fragmentation of political and public authority is that city government, often thought to be the mainstay of local government, simply doesn't have authority for much of what is done in the name of local government. Cities are only one class of actors in a production with many players.

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Reasons for Fragmentation

At the turn of the Century, there were five municipal governments in Santa Clara County (Gilroy, Los Gatos, Palo Alto, San Jose, and Santa Clara). These municipalities were geographically separated in a horse and buggy era and each of them had legitimate economic and administrative reasons for existing as a separate entity. Now, those five are simply parts of a much larger urban system.

Five municipalities in a county, each separated by rural areas, are clearly not too many for managing growth effectively. However, the number obviously did not stay at five. As evidenced in Table 4, Municipal Government Incorporations in Santa Clara County by Year of Incorporation, the number grew slowly at first. From 1900 to 1950, there were only three additional incorporations; Mountain View, Morgan Hill, and Sunnyvale. The real burst of incorporation and fragmentation occurred between 1950 and 1960, when 7 new municipal governments and a host of special districts were created.

The flurry of incorporations during the decade of the 'fifties' in Santa Clara County is illustrative of the balkanization and political fragmentation that has occurred in metropolitan areas across the nation. Most such fragmentation has come about for the same basic reasons.

Exclusion. A basic underlying reason for the political balkanization is the attempt to use incorporation as a municipality to exclude additional persons and development from an area. The reasons for wanting to exclude people and development are many and varied.

Because of housing economics and people's sociological behavior, like groups tend to live in approximately the same kinds of places. High income families, most of whom are white and Anglo in Santa Clara, tend to live in the scenic, hilly areas. They have incentives to try to exclude other people from their communities in order to protect the low density exurban and suburban character of their areas and to protect their typically high levels of assessed valuation per capita. There are other reasons for exclusion, including simple bigotry, often resulting in attempts to use municipal policy instruments
such as large lot zoning and highly restrictive building codes to keep Mexican-Americans, Blacks, and other typically lower-income groups from their neighborhoods. Incorporation as a municipality provides policy instruments that can be used for exclusion, even though the courts have been taking a dim view of such restrictive uses of those policy instruments in recent years.

In addition to providing the necessary policy instruments for exclusion, incorporation protects the enclave from annexation by a larger, presumably more polyglot municipality, such as San Jose. Knowledgeable local officials attribute many of the incorporations in the Fifties to attempts to keep from being swallowed up by San Jose—at least in private conversations. During the big boom, San Jose annexed land at an incredible rate, increasing its land area from 17 square miles in 1950 to 137 square miles in 1970.*

The residents of developing areas, particularly with incentives to exclude others from those areas and interested in retaining some political autonomy, rushed to incorporate their emerging suburbs rather than be swallowed up in San Jose's seemingly madcap annexation drive. The incorporations and balkanization were facilitated because, in the heyday of Santa Clara County growth, incorporation was easier to accomplish than annexation.**

*City of San Jose Planning Department as cited in San Jose: Sprawling City, Stanford Environmental Law Society, 1970(?)

**Incorporation during the boom period was not legally easier to bring about than was annexation of already developed areas, but it was considerably easier from a behavioral standpoint. The annexing municipality was required to obtain a favorable vote of the persons to be annexed in order to proceed. Since they had relatively shared interests, per the discussion above, it tended to be relatively easy to obtain widespread agreement to incorporate. The legal obstacles to incorporation during the 1950's were, indeed, minimal in California. In Los Angeles County, the new city did not even have to provide services; it could simply contract for the basic services from the County government through what has come to be known as the Lakewood Plan.
Table 4
MUNICIPAL GOVERNMENT INCORPORATIONS IN SANTA CLARA COUNTY BY YEAR OF INCORPORATION

<table>
<thead>
<tr>
<th></th>
<th>1850-1900</th>
<th>1900-1950</th>
<th>1950-1960</th>
<th>1960 - Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Jose -- 1850</td>
<td></td>
<td>Mountain View -- 1902</td>
<td>Cambell -- 1952</td>
<td>---</td>
</tr>
<tr>
<td>Santa Clara -- 1852</td>
<td></td>
<td>Morgan Hill -- 1906</td>
<td>Los Altos -- 1952</td>
<td></td>
</tr>
<tr>
<td>Gilroy -- 1870</td>
<td></td>
<td>Sunnyvale -- 1912</td>
<td>Milpitas -- 1954</td>
<td></td>
</tr>
<tr>
<td>Los Gatos -- 1887</td>
<td></td>
<td></td>
<td>Cupertino -- 1956</td>
<td></td>
</tr>
<tr>
<td>Palo Alto -- 1894</td>
<td></td>
<td></td>
<td>Los Altos Hills -- 1956</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Saratoga -- 1956</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Monte Sereno -- 1957</td>
<td></td>
</tr>
</tbody>
</table>

Source: Governmental Directory for Planning, 1972. County of Santa Clara Planning Department, San Jose, California.
Pernicious Reform. A number of reform movements that make good sense when they are first proposed have a way of turning out later, in much different circumstances, not to be very useful. One such reform has been the use of special districts and other single purpose governments to provide basic public services apart from the structure of general purpose local government. Movement in this direction contributed substantially to political balkanization in metropolitan areas across the nation.

"Let's take education out of politics" was a cry heard for decades. It was taken out from general purpose local government in most parts of the nation, including California, resulting in the formation of the numerically largest class of governments in the United States. It did not, however, separate education from politics. Education, in many cities, is the hub of political, if not partisan, activity.

School districts have a great deal to do with development. Their separation from general purpose local government has much to do with its inability to manage growth effectively. The desirability of a neighborhood for a young family seeking housing is determined in part by the proximity and quality of schools and educational facilities. Moreover, the timing and location of educational expenditures is an important means for shaping development, but is carried out largely in isolation from decisions of other units of government.

Special purpose governments other than school districts are also a result of the pernicious reform package. Independent units of government were formed to take sewage out from politics and to cope with areawide problems on an eclectic basis. They may have solved immediate problems such as how to cope with demands for water supply, but they weakened general purpose local governments and permitted them to continue to operate largely autonomously from one another. Moreover, the existence of special units of government, for whatever purpose, has limited drastically the ability of elected officials of general purpose governments to make tradeoffs among a large class of functions and programs in determining public priorities and expenditure targets.
There is also a fiscal incentive for political fragmentation. One reason for the creation of special district governments that cut across municipal boundaries is the fact that there are state limitations on the taxing and borrowing powers of local jurisdictions. The debt limit of a local government is typically stated in terms of a percent of its total assessed valuation. One or more municipalities that have borrowed up to their debt limit may find it to their advantage to create a special district government to perform a function, thus creating a unit of government with its own ability to tax and to borrow.

The Dominant Role of Local Government Finance in Fragmentation

Despite all the above incentives for political fragmentation in Santa Clara County and elsewhere in metropolitan areas, there seems to be one underlying and dominant reason for fragmentation. It is the system of local government finance dominant in the United States today. The sources of revenue for local government provide strong incentives for dysfunctional competition among local governments. Moreover, state level regulations concerning local tax rates and municipal borrowing have contributed as much to any reform movement to the formation of special districts. The role of the local government revenue system as a force in contributing to fragmentation and, hence, to the relative inability of the system of local governance to exert management control over development is elaborated in the following pages.

Municipal revenues are either earmarked or general fund revenues. Earmarked funds are those revenues dedicated to a prespecified use, such as state gasoline shared tax revenues for selected roads, state and federal categorical aid funds for specific projects, sewage charges for treatments costs, and assessments dedicated to servicing the debt incurred for one or another purpose. General fund revenues may be spent on whatever pleases the government and the community, provided, of course, that mandated services are carried out and that the expenditure is for a legitimate municipal activity as defined in the state constitution, by state statute, or by municipal charter.
The structure of the municipal revenue system is determined in large part by state government. The state defines the appropriate targets of taxation, specifies to a considerable extent the nature of the levies, and regulates local indebtedness. Discretionary local revenues in Santa Clara County come primarily from the local real property tax and from rebates paid to the locality by the State for sales tax collected within the municipality's boundaries.

Two strong incentives are at work in municipal finance. One is the much expressed interest of taxpaying residents to keep the real property tax from going higher than it already is. The other is the interest of the local official in having discretionary funds for providing the kinds and levels of services deemed desirable, either through routine political processes or through peer group pressure on professionals to attempt to meet standards of performance in the various functional areas of municipal service.

The best way to attain the dual objectives of a low tax rate and a large measure of discretionary funds is to build up a high assessed value of real property per capita while keeping the number of persons requiring expensive services at a minimum. The well-known Cities of Commerce and Industry in Los Angeles County are classic examples. Each is a gerrymandered municipality carved purposefully from a more inclusive urban system to include highly valued properties while excluding population to the extent possible. The obvious intent is to reduce property tax rates to the absolute minimum.

The results of the incorporation of a number of relatively small municipal enclaves in Santa Clara County are reflected in the disparity among municipalities in terms of assessed valuation per capita, effective tax rates, and revenues and expenditures.

Table 5 contains data indicating the variations among tax rates and assessed value per capita among municipalities in Santa Clara County. The disparities among jurisdictions are indicated in the marked variation in both effective tax rates and assessed valuation per capita. Effective tax rates varied from a low of .1 per cent in Monte Sereno to a high of 1.99 per cent in San Jose in FY 1970.
<table>
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<tr>
<th>City</th>
<th>Revenue as a %</th>
<th>% of Mean</th>
<th>Assessed Value</th>
<th>% of Mean Assessed Value</th>
<th>Per Capita</th>
<th>% of Mean Per Capita</th>
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<tr>
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Source: Adapted from Financial Transactions of Cities, 1969-70, as compiled by the Santa Clara County Department of Planning.
In the same year, assessed value per capita ranged from a low of $1,877 in Milpitas to a high of $4,718 in Palo Alto. The variation in assessed valuation results in a significant difference in the tax effort required among jurisdictions to purchase comparable goods and services.

Tax rates however, are not only a function of assessed valuation. They also reflect the kinds and levels of services expected by the voting residents. As indicated in Figure 1, there is a significant variation among municipalities in Santa Clara County in their revenues as well as in their tax rates. Revenues and, therefore, expenditures range from a low of $40 per capita in Saratoga and Monte Sereno, two relatively well-to-do suburbs, to a high of approximately $200 in the affluent communities of Palo Alto and Mountain View. The municipalities with assessed valuations near the median and with high tax rates tend to raise revenues and spend near the median of the County's municipalities.

Despite the variations in revenues and expenditures among the cities in the County, one can still generalize about the relationship between assessed valuation and tax rates. A linear regression analysis was employed to determine the relationship between tax rates and assessed value in the County. The relationship between the two is statistically significant, but as one might expect from the variation in expenditures among communities, it does not explain all the variance in tax rates. In general, however, the higher the assessed value in a municipality, the lower the effective tax rate:

\[ T = 2.276 - 0.0041A, \]

where

\[ T = \text{Effective real property tax rate in FY 1970} \]
\[ A = \text{Assessed value per capita in FY 1970} \]
\[ R^2 = .306 \]
\[ \text{SE (est.)} = .537 \]
\[ F = 5.727 \quad df = 1,113 \]
\[ t \text{ score} = -2.393 \]

Statistically significant at .05 level of confidence.
Fig. 1 — Revenue per capita and effective tax rates by municipality in Santa Clara County in FY 1970
A second linear regression analysis indicates that municipalities with a higher tax rate also tend to raise more revenue per capita and, therefore, spend more per capita. Here, too, the relationship is relatively weak with a large standard error of the estimate, but the relationship is statistically significant as the .10 level of confidence.

\[ R = 65.241 = 41.9T \]

where

\[ R = \text{Revenue per capita in FY 1970} \]
\[ T = \text{Effective real property tax rate in FY 1970} \]
\[ R^2 = .264 \]
\[ \text{SE (est.)} = 45.108 \]
\[ F = 4.662, \ df = 1,13 \]
\[ t \text{ score} = s.159 \]
Significant at .10 level of confidence.

Combining the two analyses, there is an indication that communities with higher assessed valuations tend to have low tax rates and spend a relatively small amount per capita for public services. There are exceptions to that general rule, as indicated by the large amounts of unexplained variance in the two bivariate analyses and by the large standard errors of the estimate.

The incentive for balkanization is clear for the smaller, wealthier communities. They have the option of maintaining very low tax rates and providing a minimum level of services to their residents or they can impose a somewhat higher, though still comparatively low, tax rate and provide a wide range of services at fairly high levels to their residents. The communities without the advantage of a high assessed valuation per capita tend to be the large communities -- there are exceptions such as Milpitas -- with a larger proportion of "problem" populations. They have to tax themselves heavily simply to provide the kinds of services required by the poor and the elderly.

The fiscal incentive for exclusion for the smaller wealthier
communities in also clear. Additional residences and greater densities generate needs for schools, playgrounds, streets, libraries, and a myriad of other public services. It is often in these communities where additional housing development for lower middle income households would cost more to provide services for than it would yield in revenue at prevailing tax rates. Rather than raise the tax rate, those municipalities would prefer to exclude additional people. The smaller communities tend to be sufficiently homogeneous and to have enough shared interest in keeping taxes down that other exclusionary practices tend to reinforce the status quo. The practices tend to do more than reinforce the status quo; they tend to exacerbate differences among the communities.

Such homogeneous enclaves argue that they are, in fact, paying their way in the County as a whole, since they pay County taxes used for welfare and health care services. The larger, more homogeneous communities argue that such costs are only a small portion of the total real costs associated with providing urban services to the old and the disadvantaged.

The municipalities that are well-off in terms of tax base have every reason for being able to develop considerable support for slowing or stopping growth. From a fiscal perspective the larger and the poorer municipalities have mixed incentives toward growth. They eagerly seek industrial and commercial establishments within their boundaries because of local government's necessary reliance on sales tax rebates and the real property tax. These kinds of establishments tend to generate high tax yield and to require low expenditures when compared with residential development.

Industry, particularly of the kind that is clean, and non-polluting and has highly paid employees, requires little in the way of public services. Commercial establishments, too, are sought after, for it doesn't matter where the buyer lives when it comes time for the State to share the sales tax revenue. The basic decision rule is that the funds go to the municipality in which the commercial establishment is located. So, if San Jose were to have a shopping center, but all the patrons were to come from Santa Clara, San Jose
will be a triple beneficiary. It would gain the sales tax revenue, gain the property tax revenue from the shopping center, and not have to provide urban services for the shopping center patrons.

Occasionally, anomalous situations develop. Local historians and municipal officials state that, in the early days of the boom, San Jose focussed on attracting as many persons as it could, reasoning that industry would follow the people even though it seems apparent that the reverse is more often the case. That early emphasis in San Jose is in part responsible for San Jose's relatively low share of industrial and commercial tax base compared with some other municipalities in the region.

That early thrust in San Jose also related to the story of the formation of the City of Milpitas further illustrating the fiscal basis for balkanization. The story is told that a large automobile manufacturing firm owned land northeast of San Jose on which it wanted to build a plant. However, the firm applied to San Jose to be annexed and to have services extended several miles to the northeast to serve the plant. The City Council, overriding the manager refused the expenditure. The automobile firm then, the story goes, took the initiative in helping the City of Milpitas to become incorporated -- a task made relatively east from a practical, political standpoint because of the large, built-in tax base.

Given this kind of local government revenue system, there is small wonder that metropolitan areas tend to be fragmented into a large number of local jurisdictions. The municipalities tend to act rationally with respect to the rules of the game, but the rules would appear not to be particularly rational -- at least not in terms of contributing to the ability of local governments to exercise cooperative efforts to manage growth.

With the existing local government revenue system, one should expect balkanization. One should also expect some municipalities to be strongly against additional growth -- at least within their own narrow boundaries -- and others to be either ambivalent toward growth or to want industrial and commercial expansion without corresponding increases in either the number of residences or the number of people.
One should expect, too, because of the balkanization, segregation among social groups and considerable cleavage on basic social issues between communities that are unlike one another in socioeconomic and fiscal characteristics.

**Consequences of Balkanization for Managing Urban Development**

Inherent in the reasons for political balkanization in metropolitan areas are many of the reasons for the difficulty that such fragmentation generated for areawide management of urban growth and change. While the sheer number of governments creates some problems of coordination, the number of governments is not the principal source of the difficulty. Indeed, it is entirely possible that we ought to have more governments than we actually do, particularly at the neighborhood level; provided, of course, that they are part of a more integrated governmental system rather than a more diffuse and fragmented system.

It was noted earlier that one of the basic problems in controlling urban growth is that there is no central policymaking body in the metropolis that could make and enforce a policy outline for the metropolitan area -- a policy outline that would leave sufficient discretionary room for local jurisdictions, but which would ensure a consistent overall policy thrust and an effective forum for modifying that thrust through regular political processes. Without this central policymaking function, each of the many local governments in the metropolitan area acts autonomously, with the policies of each contributing to or negating the policies of adjoining municipalities on a seemingly random basis. The social and economic fabric of the metropolitan area is tightly interwoven. Yet, the public controls over that large and extremely complex system are many and diffuse and largely uncoordinated. The overall effect of so much diverse control from so many autonomous points is essentially no control at all. There is so much government, there is very little governance.

A second basic consequence of fragmentation and diffusion of public authority is that it is almost impossible for local governments to use effectively the policy instruments that are potentially the
most powerful for managing development. The foremost of these policy instruments is the location and timing of public improvements, such as water, sewerage, schools, fire stations, and streets. Yet, in Santa Clara County, there have been no effective for coordinating the development of such public improvements, and, in most metropolitan areas, there are still no such effective means.

Furthermore, the incentives for individual units of government in the metropolitan area are such that there is little reason why one might expect them to spend money individually so as to reinforce the goals of neighboring municipalities. As we have tried to demonstrate, the local government financial system and the segregation associated with balkanization often provide different incentives for adjoining municipalities concerning growth.

We have also discussed previously the differences in attitude toward growth on the part of landowners and homeowners. One might expect landowners in newly developing areas to continue to push for growth since their fortunes are in large part tied to the successful conversion of land in agricultural and other low density uses to higher density urban uses. The homeowners who move in are likely to oppose growth for financial reasons and because they want to close the door on others like themselves who seek to escape the crowded environment of the city.

Still another consequence of balkanization for areawide management of urban growth is the segregation associated with it. We do not mean to imply that balkanization leads to segregation. To the contrary, it appears that attempts to exclude others and to protect tax base and environment lead to balkanization. The proliferation of local governments is simply a mechanism whereby people attempt to exclude others. One of the most critical features of political balkanization is that it is not simply an arbitrary division of a community into many small units of government. It is a very selective process of segregation of various economic, social, and ethnic groups of the entire community or urban system. The result is a situation in which existing social and economic cleavages among communities are exacerbated.
The exacerbation of existing cleavages by grouping like persons into municipalities tends to result in considerable difficulty in achieving cooperation among local governments on important issues, including that of managing growth. Not only do the different types of municipalities have different interests concerning growth, but they tend also to have differences in values and attitudes along many other lines as well.

There are incentives for local governments to cooperate on matters where there are shared values and interests and where the solutions to problems are relatively straight forward. These are usually problems with engineering solutions, such as water supply, sewage treatment, solid waste disposal, and even transportation. There are strong disincentives for cooperation among municipalities when the issues center on housing for the poor or for minorities, sharing tax base, and other issues having to do with altering the status quo concerning the location of "problem" populations or relative assessed value per capita among communities.

In short, the advantaged communities are willing to cooperate whenever it is to their advantage to cooperate. However, it is seldom to their advantage to take the poor or to give up a measure of their wealth.

With regard to special, single purpose units of government, it is more a case that there are few incentives to cooperate than it is a case of disincentives to cooperate. In a single purpose government, the administrator's strongest incentives are geared to performing his assigned function efficiently and effectively -- and to continue to grow, since one measure of successful administration, right or wrong, is growth of the organization. Thus, the head of a sewer or water district has few incentives to attempt to curb areawide growth; his incentives are to continue to lay sewer pipes or to provide water to an increasingly large service area. Similarly, the school official's main function is to provide educational services; he seldom feels a mandate to attempt to control growth.

Since special districts are outside the purview of general purpose local government, there is no one government -- save the
State -- able to oversee the districts so that their policies and actions contribute to more than one goal and so that their objectives are consistent with those of the larger community. Moreover, because single purpose local governments operate by their own budget, there is no way trade-offs can be made in a reasoned way between the amount of resources spent on that function vis-à-vis those spent on other functions or on other ways of providing the service or reducing the need for the service.

In summary, fragmentation and diffusion of public authority in the metropolitan area contributes substantially to the inability of local governments, individually and collectively, to manage urban development. Each of the small units, largely autonomous from its adjoining municipalities, acts upon a very small part of a very large and complex system. The collective sum of very small and disparate leverage on the system is not very great. The balkanization is also associated with cleavage along important social and economic lines, generating great disparities in local public economies and often, basic differences in social interests, making cooperation among local governments difficult at best.

CONCLUSIONS ABOUT THE FEASIBILITY OF AREAWIDE GROWTH CONTROL

It makes good sense that the management of metropolitan growth be handled at an areawide level rather than through the actions of the many and comparatively less powerful individual jurisdictions within the metropolis. Only by addressing the issue at the metropolitan level can government exert sufficient leverage on the metropolitan economic and social community to have a major impact on growth rates and development patterns. Without areawide control over the major policies, within which local governments would have discretion to policy space, all the units of government in the metropolitan area are at the mercy of forces exogenous to their control -- including forces from outside the metropolitan area and the actions of individual jurisdictions acting in their own interests without thought being given to the interests of others in the metropolitan area.
There are some basic limitations on the ability of the system of governance within a metropolitan area to effect control over growth. First, and inescapably, there are a large number of forces that will remain exogenous to the metropolis. They have a great deal to do with both the pressures for growth in the area and on the forces that influence the patterns of development that are likely to take place. Among these forces are general shifts in population and economic base of the metropolitan area, levels and types of federal procurement, other federal policies including tax provisions, consumer tastes, and changing attitudes toward growth.

Even though these forces are powerful and have much to do with the location and intensity of growth pressures, the governments within a metropolitan area could exert influence over both the pace of development and the characteristics of development were it not for what might be described as an institutional crisis in terms of local ability to manage growth. The rules and regulations concerning local government organization and finance are determined largely by state government. Under the set of rules that still dominates in most metropolitan areas, there are strong incentives for political balkanization involving both the fragmentation of the metropolitan system into many local governments with and diffusion of public authority among a variety of kinds of governments. The rules have also favored increasing segregation and the population by age, race and ethnicity, and wealth among municipalities. The underlying cause for the balkanization, diffusion of political authority, and lack of cooperation among municipalities appears to be the struggle for tax base, or, more precisely, the struggle for comparative advantage in assessed value per capita. Balkanization along lines of socioeconomic characteristics and relative affluence of the public purse contributes mightily to a divergence of interests among different kinds of communities, concerning growth and a general inability to cooperate on the more pressing social and economic problems.

Given this system of local governance within a metropolitan area,
there is little chance that municipalities, counties, and special
districts can collectively use their individual policy instruments
to exert sufficient leverage on the development system to avoid
undesirable growth patterns. Indeed, given the current institutional
makeup of metropolitan areas, there is little chance that the diverse
communities will even be able to cooperate to the extent necessary
to agree upon objectives concerning growth and development, much
less strategies for attaining those objectives.

The situation is dire, but not entirely hopeless. Some progress
is being made in Santa Clara County, as discussed below. It seems
apparent, however, that the progress there is the function of a
peculiar set of circumstances that may or may not be replicated in
other metropolitan areas.

CURRENT DEVELOPMENTS IN SANTA CLARA COUNTY

Santa Clara County and San Jose, in particular, have been much
maligned in a variety of reports and articles, including a Nader
Report, as a classic case of how not to deal with development.*
Many of the allegations and concerns are justified, but many are not.
Much of what happened in the County during the past 20 years is
nothing more than that which has happened and is happening in
hundreds of other locales in California and throughout the nation.
The situation may have been exacerbated in the Santa Clara Valley
because of the speed and the volume of activity, but the pattern is
not unlike that in most other large suburban areas.

For a long time during the boom, there were but few voices crying
in the wilderness for "rationality" in the face of the growth. As
it still is in many, if not most, parts of the United States, growth
in the Valley was equated with progress and prosperity. It was the

*Illustratively, see "Correcting San Jose's Boomtime Mistakes,"
Business Week, #2142, September 19, 1970; San Jose: Sprawling City;
A Study of the Causes and Effects of Urban Sprawl in San Jose,
California, Stanford Environmental Law Society, March 1971; Politics
of Land, Robert C. Fellmuth, Project Director, Grossman Publishers,
case there, as it is elsewhere, that it is only after the rampant
growth occurs that many are able to see finally the full costs
associated with growth.

Attitudes are different now in much of Santa Clara County from
what they were during the boom. Many of the governments within the
County now officially favor managing growth, but the concern is by no
means universal among the governments, nor is it universal among staff
within individual governments.

Over the past few years, there have been a variety of attempts
to create, within the County, an institutional framework within which
to begin to provide for managing growth and development. The concern
today seems to be less with stopping growth entirely and more with a
more middle of the road course of action -- one that provides for
growth, but attempts to manage development so that public and private
costs do not get out of hand.

One of the bulwarks in the attempts to create the necessary
institutional basis for action is LAFCO. The institution, created by
state mandate and controlled by a board of county and local officials,
has the primary purpose of passing on the incorporation of new units
of government and the annexation of property to existing cities. In
many counties in California, LAFCO's are not very effective. The one
in Santa Clara County is much more effective than most, partly because
of the County government's strong technical and policy support for
the agency. An indicated previously, the formation of LAFCO in the
County correlated with the termination of the boom in new incorporations.
There is little doubt that LAFCO had much to do with that, but it
must be pointed out that by the time LAFCO was formed, many of the
large "land wars" in the County were already over, with the spoils
in the north half of the County divided and the protective municipal
enclaves already formed.

In addition to simply ruling on incorporations and annexations,
the Santa Clara County LAFCO has assigned "spheres of influence" to
the existing municipalities within the County, earmarking the territory
of each, so that each knows, in advance, which areas of unincorporated
lands it might expect to eventually annex. Once this was agreed to,
partly because of the LAFCO action and partly because the spheres were
becoming defined through the annexation struggles between the cities, a major source of irritation among the municipalities was removed—even though the struggle for tax base among them continues today.

Although there is some question about its exact origination it was first in San Jose that official action was taken to divide the city's sphere of influence into areas designated for early development and for urban reserve. The idea was adopted by LAFCO, which requested that each city within the county specify areas for early development—called "urban service areas"—and for urban reserves within their respective spheres of influence. This is now in the process of being completed.

It is perfectly clear that simply designating land as an urban service area or as an urban reserve will not lead to more controlled development. Therefore, an arrangement has been developed between the county government, which essentially has control over land that is not incorporated, and the cities, which control incorporated land. The County has said that it will not permit development on unincorporated lands for which there are no urban services. It has said, too, that urban services will not be provided to any lands located outside the cities' urban service districts that do not already have services and that the respective city has not agreed to annex. In short, the County has turned over to the municipalities decisions about where development will take place. The County has, however, through LAFCO held out the right to accept or reject the urban service district boundaries of the individual municipalities.

The way the plan is to work is that potential developers of unincorporated land will have to come, as always, to the County for permission to develop. The County will send them directly to the City within whose sphere of influence the land is located. If the land is within the designated urban service district (the area to which the city has agreed to provide urban services) and the developer is willing to have the land annexed as a condition of obtaining needed services, then the City and the County will permit the development.

In addition to the provisions of County policy described above, the County has stated that it will encourage annexation of unincorporated,
developed enclaves that are contiguous to cities. In order to help effectuate this recommendation, the county has been moving to ensure that city residents do not subsidize residents of unincorporated areas through county taxes, attempting to employ user charges to insure that the costs of services are borne by those who benefit from them.

There are several difficulties with the plan that flow from prior conditions. First, the plan will not affect certain unincorporated areas that are yet to be developed, but which already have access to public services through special districts and previous county commitments. The plan simply won't be very effective in these areas because developers already have all they need to proceed with development. Second, the plan will not work in those incorporated areas of cities that have not yet been developed. Once services have been extended to an area and land is zoned for development, there is little that a city can do to stop developers because of the provisions of the state's Subdivision Map Act. The Act does not provide municipalities with much leverage over the tempo of development. One possible means for effecting control over timing is a recent California court decision that requires environmental impact statements to be filed for both public and private developments. If local officials can justify slowing down new development on environmental impact grounds, they will be able to use this tool to manage development tempo—even though it seems a clumsy tool, it is better than none.

Another limitation of the plan is that no institution or set of institutions can specify where, for example, the next 5,000 housing units in the county will be located or when they will be built. The decisions concerning that will remain largely as market decisions with minimal public input. The desirability of such a feature varies with one's values and perspective, but, in terms of the effectiveness of local control over development patterns and timing, it is a feature that must not be ignored.

An important feature of the Santa Clara County plan for managing development is the countywide Policy Planning Committee, an organization put together primarily by local elected officials. The major purpose of the organization is to bring elected and appointed officials from
the many local governments within the county together to address critical issues. The PPC is a forum in which intergovernmental development problems are hammered out, but also one in which matters usually considered to be internal affairs within individual municipalities may be brought under attack by one's peers from other local governments. The PPC appears to be an effective means of communication and debate, and, perhaps, even of enforcement of group judgments over what is and what is not acceptable action on the part of municipalities within the metropolitan area. The essential characteristics of this organization is that it works because its members want it to work—not because there are powerful incentives or legal mandates for it to work. Indeed, the PPC has worked thus far despite the fact that many incentives exist for it not to work.

Whether the Santa Clara County plan works or does not work in the next few years will be determined by experience. It cannot be judged solely by the decisions it makes or does not make, but must also be judged by the number of issues that fail to arise because of its existence. We are not yet in a position to judge its success or failure. Even more important than whether the plan works is the fact that officials in the county recognized the necessity of taking on the creation of a new institution because they knew that the existing set of relationships was simply inadequate to enable them to exercise control over future development. They were aware that only through joint action could they ensure that they would have an element of self-determination. If each individual municipality had continued on its own way without involving itself in the decisions of its neighboring communities, there would have continued to be virtually no prospect for managing urban development.
III. LIMITATIONS ON MUNICIPAL MANAGEMENT OF GROWTH

Areawide management of growth and development, at least at the level of broad policymaking, makes sense, except that there are severe difficulties in most metropolitan areas for effecting that kind of management. As discussed in the previous section, there are three principal difficulties. The first is simply the fact that many of the important variables influencing pressures for growth and the shape of development patterns are outside the control of governments comprising the metropolis. The second set of reasons is institutional. There is no central policymaking institution in most metropolitan areas that provides a forum for deciding upon areawide growth policies and for ensuring that they are implemented. Third, the system of local government finance in the United States tends to build into a metropolitan area a division of interests among local governments on the issue of further growth and severely constrains the opportunities for cooperation concerning growth management.

Many of the same forces that restrict the capability of the system of local governance to manage growth in the metropolis on an areawide basis are applicable when one considers the extent to which individual municipalities can manage growth and development. Certainly, for example, the forces that are exogenous to the metropolitan area are also exogenous to the individual municipality within the metropolitan area. Added to those variables is the fact that the actions and policies of neighboring local governments are exogenous to individual cities. On the other hand, local governments do have legal policy instruments that have been designed to give them some control over land use and development within their boundaries. The following discussion centers on the extent to which those legally conferred policy instruments can actually be used effectively in a practical setting.

It should be made clear from the outset that we are not discussing the extent to which a single municipality in a metropolitan setting can exert sufficient leverage to command significant influence over the pace and character of development in the whole metropolitan area. This discussion deals with the extent to which the individual municipality
can exert significant influence over the character and pace of developments within its boundaries and in the area immediately outside its boundaries.

The reason for addressing the issue of the extent to which the community can control growth within its boundaries should be clear. Why we should be concerned with the area outside the city's immediate boundaries is perhaps less clear. Few of the metropolitan areas in the United States are entirely incorporated from one end to the other. Most have several municipalities and a large land area developing suburban characteristics outside municipal boundaries. Cities tend not to have much control over that growth. They are, however, in a position of having eventually to annex that area to provide services, or to provide selected services free to residents of these areas without benefit of annexing them and being able to levy taxes on them (libraries, zoos, recreational facilities, streets, public safety, etc.), or to find themselves faced with still another immediately adjacent incorporated area.

For these reasons, we think that it is important to address the question of the extent to which a city can manage growth and development, even though we are convinced that major policy decisions concerning growth ought to be made at a metropolitan level, if not at higher levels.

Thus, the discussion that follows focuses on institutional and behavioral considerations that affect the ability of a single municipal government within a metropolitan area to exercise effective management over growth and development. It begins with a discussion of the variables that appear to influence the extent to which a municipality can exercise control effectively and then moves to a discussion of selected policy instruments, describing the ways in which behavioral and political considerations, entirely rational considerations given the system, influence the effectiveness with which those instruments are used.

**FACTORS AFFECTING DISCRETIONARY POLICY SPACE**

A basic fact of life is that not all municipalities are in the same position when it comes to the effective use of the policy instruments
at their legal command for controlling urban growth and development. Some cities are simply in a much better position to use them than are others for reasons that relate not to the legal characteristics of the policy instruments, but rather to the incentive system and behavioral forces that influence public policy choices.

As an illustration, one of the basic factors that influences the extent to which a municipality has leverage over the shape of urban development within its boundaries is the very practical matter of how much land remains undeveloped at the time the decision is made to try to exert influence. Certainly the city that is built-up from boundary to boundary has less leverage over subsequent development patterns than does a municipality where there are vast tracts of undeveloped lands. It is far easier to shape the pattern of new development through direct controls and incentive structures than it is to use those controls to shape the many more market decisions that lead to the gradual transformation of already built up areas. Thus, San Jose's discretionary policy space concerning growth has diminished through time as a result of the decisions it has already made.

Unfortunately, in San Jose, as in almost all other urban areas, local options with respect to future development were "sold off" cheaply in the earlier days of development; i.e., actions were taken that closed off options without taking into consideration the preservation of developmental options. For the municipality interested in developing or maintaining some leverage over development, there is considerable merit to weighing alternative actions in terms of the extent to which one or another action preserves or reduces the subsequent range of options for the community. Clearly, this is not the only consideration, but it is one of great practical consequence.

In the previous section, a considerable portion of the discussion was devoted to the impact of the local fiscal system on fragmentation. Most of that discussion is equally relevant to the matter of the extent to which local governments have the practical opportunity to exercise policy instruments to manage or control growth.

The extent to which a local government is on a par with its neighboring jurisdictions has great bearing on the extent to which it
can, as a matter of practical politics, exclude growth and development it should permit and, indeed, whether it should permit any at all. Those that are comparatively poor in terms of tax base are in a more awkward position. They may face severe pressure to exclude further residential development from citizens who fear it will raise their already-too-high tax rates.

Illustratively, a group in San Jose fought successfully recently to restrict new residential zoning to areas where schools are already in existence and where further development will not cause crowding. A flyer prepared for the local election warned that "Uncontrolled residential zoning is hazardous to your children's educational growth" and "...hazardous to your wallet." The group hastens to point out, however, that the proposed measure "will have no effect on commercial construction in San Jose." Thus, while there is frequently pressure to exclude new residential development from a municipality with low assessed value and high tax rates on the basis that new development "won't pay its way," there is very often simultaneous concern for adding new commercial or industrial development to help lower those taxes. This, of course, puts the public official in a rather undesirable position. In order for new industry and commerce to develop, there have to be persons to work in the factories, shops and offices. If there is pressure to keep them out of the city, they'll have to live somewhere else, so they often end up in an adjacent municipality or in an unincorporated area outside the city's control.

There appears to be at least one exception to the general rule of thumb that relatively poorer municipalities cannot afford to be highly selective about new growth. If all the communities surrounding a less well-off community are busily attempting to exclude growth, the city that will permit growth can also afford to be reasonably selective. There is seldom much competition for middle and lower income housing within a county, since many people feel that public costs for development and services are greater than resulting revenues. Therefore, the city could afford to put pressure on developers to build according to

local design standards and in areas where the city is willing to have development.

A last point concerning the relative ability of municipalities to manage growth depending on circumstances relates to the previous point rather directly. Local officials can use the tools that are legally available to them more effectively if there is strong agreement in the community either for or against more growth. A city official who attempts to encourage or discourage growth in the municipality against the wishes of the electorate is usually in trouble. If there is considerable decisiveness on the issue, the official may be able to pursue a "nonpolicy," in which case there may be unhappiness on both sides of the issue.

LIMITATIONS ON THE USE OF LOCAL POLICY INSTRUMENTS

Municipal governments tend to be in a much better position to control development within their boundaries than is the system of local governance within the metropolitan area. This is simply because the individual municipality constitutes an institution empowered to act over a specified jurisdiction. Most metropolitan areas do not have comparable areawide institutions and, therefore, the collection of governments tends to be relatively helpless to act effectively in concert to control growth purposefully.

There are, however, some severe limitations on the extent to which municipalities really can manage development within their boundaries. As explained previously, fragmentation of responsibility for policy and operations almost precludes the effective use of important tools, such as the timing and location of public improvement expenditures. Second, there is still the whole set of fiscal incentives that tends to lead local government officials into an ambivalent position concerning the desirability of attempting to preclude certain kinds of development—development that usually brings less desired kinds of development with it. Third, the powerful exogenous forces that exist for the whole metropolitan area also exist for the municipality. Local policy planners tend to find themselves in a position where they must either try to second guess the market or attempt to use policy instruments to bludgeon it into submission. Acting in response to market
behavior in order to accommodate it is not really managing growth. Efforts at bludgeoning the market into submission have not met with considerable success. Finally, there is the problem of development just outside the municipal boundaries. The extent to which municipalities have legal powers to exert influence over development beyond their boundaries varies from state to state. Often, local officials do not have much control over what happens outside their municipal boundaries. To the extent that they do not, they have commensurately less control over urban growth and development in their own community—especially if they are expected to annex those lands at a later time and provide services to them or if they are later expected to compete with those areas for tax base.

A number of the policy instruments are legally available to local governments for managing urban development. The more important of these are discussed in the following pages in terms of the political and economic forces that limit the practical use to which local officials can put them. The discussion is somewhat repetitious, from time to time, of the discussion in the previous section, but has been included to amplify and to illustrate previous arguments.

The Police Power

Perhaps the most widely known local government policy instruments for shaping development are those known as police powers. They include zoning, subdivision control, building and occupancy permits, and aesthetic controls, among others. Of these, this discussion focuses on zoning and subdivision controls.

There exists an extensive body of law dealing with the use of municipal police powers to control land development and use. This is not an attempt to summarize that body of law or even to describe the available policy instruments in detail. It is simply an attempt to describe the major policy instruments and to explain why they are not as effective as the casual observer might expect them to be.

Zoning. Zoning is perhaps the best known of the local government police powers for controlling land use. Local governments adopt a municipal, town or county zoning ordinance which describes the uses to
which land can and cannot be put and prescribes the class of uses to
which the various land parcels in the jurisdiction may be put.

There are some basic difficulties with relying on zoning as a tool
for managing urban development. The basic difficulty centers on the
fact that how a land is zoned influences rather directly the benefits
that the owner can derive from that land. For this reason, it is to
be expected that there will be controversy about zoning where local
government zoning decisions do not exactly mirror the development pat-
tern that a free market would have generated.

Considerable amounts of money can accrue to persons who own a
land parcel and who are able to get the zoning changed from, for exam-
ple, an agricultural use to a residential use or from a residential to
a commercial use. For these reasons, there is considerable and almost
continual pressure on the local government that attempts to use zoning
as a positive policy instrument for shaping a city in a way that the
market would not shape it. It is not unknown for developers to support
one another's applications for zoning changes before a zoning board or
city council in exchange for similar support at some later time. Local
officials in Santa Clara County have complained of this "ganging up."
Nor is it unknown that bribes have been offered to zoning board and
city council members in exchange for zoning changes. The "ganging up"
by developers and the bribes may be a minor force in the overall level
of activity surrounding zoning changes, but they are indicative of
the pressures on zoning administrators, zoning board members, and city
council members.

The problem is exacerbated where there are zoning boards of appeal.
those who seek positions on local zoning boards are often those who
stand to benefit from such an appointment. As a result, zoning boards
throughout the nation tend to be composed of real estate agents, devel-
opers and builders, and landowners. If nothing else, they share simi-
lar interests and values with those who hope to gain through zoning
changes. Such officials are more apt to be sympathetic to the impas-
sioned pleas of businessmen and developers who have money at stake
than they are to be sympathetic to the impassioned pleas of zoning
administrators who are concerned with intangibles like "neighborhood
integrity" and "planned development."
Along the same lines, there are frequently incentives for local governments to make zoning changes. How many public officials could withstand the pressure that would be brought to bear if they were to refuse to make a zoning change that would permit a major industrial or commercial development within their municipal boundaries? Such a development would be a considerable boon to the local treasury, bringing in a considerable property tax base which, in all likelihood, would exceed the incremental costs required to provide services, and, if the development is commercial, would also bring increased sales tax revenue to their municipality. The urge to improve the ratio of tax base to total costs or the tax base per capita is powerful in local officials, spurred in large part by the local property owners' concern for the local tax rate. Only in those instances where a community is attempting to insulate itself from urban problems and where the community is comparatively well off, and comparatively homogeneous, are there incentives to exclude development of sufficient magnitude to make it possible for the local official to beat down the forces for zoning changes.

There is another basic problem with zoning in the growing community, particularly in those parts of the country where municipalities do not have extraterritorial zoning powers. Extraterritorial zoning power means that the municipality is permitted to zone land outside its municipal boundaries, up to a specified distance from its municipal boundaries or within an area defined as its sphere of influence, with these areas usually defined by a state agency.

Both cities and counties in California have strong zoning powers, with cities permitted to zone within their boundaries and with counties typically zoning the unincorporated areas—those areas outside municipal limits. If the county permits development outside the municipal boundaries, then the city usually has little choice in the matter. The city might annex the area and live with any poor choices previously made by the county, or, more likely if the development is residential, there will be few incentives for the residents of the unincorporated area to become a part of the city. In all likelihood, they will refuse to be annexed, continuing to live under county jurisdiction with its typically lower tax rate.
In areas like Santa Clara County, where the Local Agency Formation Commission, LAFCO, has defined local municipal spheres of influence, city and county planners and administrators are cooperating, for the most part, on zoning of lands outside the municipal boundaries but inside municipal sphere of influence. Except for such instances, however, there is no reason to expect that there will not be conflicts about the zoning of land in unincorporated areas at or near municipal boundaries. In California, the county is not a higher level of government than the municipality. It is essentially only a different kind of local government, even though it has somewhat different and broader powers than a municipality. City-county differences have to be worked out by politicians or managers, just as conflicts are worked out between adjoining municipalities. Only if one or the other units of governments wholly abdicates its policy role or if there is great cooperation in the development and execution of plans should one expect complete harmony fringe zoning.

Subdivision Controls. Policy concerning subdivision control varies among states and, from a practical policy standpoint, even among counties in California. Municipalities in Santa Clara County have not, in the past, had extensive control over subdivision in areas within their designated "spheres of influence" yet outside their boundaries. Because of the collaborative efforts among county officials, LAFCO, and municipal officials, there is much more control in Santa Clara County than might be expected from a straight-forward evaluation of guiding legislation. Nevertheless, one would expect a municipality, within its boundaries, to be able to regulate design, timing, and technical considerations of a planned subdivision. However, as the California Subdivision Map Act is written, a municipality has very little control over the timing of subdivisions. As long as a developer meets the basic state requirements and has appropriate zoning, he can proceed to develop his subdivision and there is little that the municipality can do about it if services exist in those areas. It is this lack of control over timing that is one of the greatest difficulties for the municipality that attempts to control the tempo of land development. Without effective control over when a development is initiated, there
There is very little opportunity to have increment, planned development that is contiguous with previous development.

Other Police Powers. Municipal government is legally empowered to employ other police powers to manage change, including condemnation, building and occupancy permits, and aesthetic controls. Each can be used to shape development patterns within a municipality's boundaries. They cannot be used very effectively, however, if a community waits until land is already developed outside its boundaries before it annexes that land. The clear inference for local government is, therefore, that municipalities should attempt aggressively to annex land prior to development, or, as in the case of Santa Clara County, the County government could continue its current policy of attempting to preclude development in areas where there is not a commitment to be annexed and attempting to ensure municipal prezoning within the development area. Alternatively, a strong county posture toward development could be employed so that the county itself employs these policy instruments to shape development.

Other Policy Instruments

There are several policy instruments other than those deriving from the police power that could be powerful means by which a municipality or county government could exercise management over urban growth and change processes, provided, of course, that certain conditions exist.

Annexation. Annexation is the process whereby a municipality can bring unincorporated land outside its boundaries, yet contiguous to the city, within its boundaries. Annexation holds the potential for being a powerful instrument by which a municipality might manage development at its fringe, particularly since municipalities have such little leverage over lands outside their boundaries.

California municipalities are empowered to annex either uninhabited areas (fewer than 12 persons in the proposed area of annexation) or inhabited areas. Until recent litigation, municipal annexation of uninhabited lands could be determined by the pro or con vote of landowners.
holding 51 percent of the land value in the parcel to be annexed. Recent litigation appears to have changed this provision, making it easier for municipalities to annex uninhabited, undeveloped land. This should make it possible for municipalities to use annexation to their advantage.

Annexation of developed land poses a different kind of problem. Such annexation requires an affirmative vote of the residents of the area to be annexed. Residential landowners in unincorporated areas have few incentives in the San Jose metropolitan area (and most others) to become annexed. County tax rates are typically lower than are municipal tax rates. This is in part because municipal taxpayers subsidize residents of unincorporated areas. Landowners in both incorporated and unincorporated areas pay county taxes. Even though counties often attempt to have residents in unincorporated urban areas pay for direct services (private goods in the economist's parlance), it is almost inevitable that the taxpayers in municipal areas help pay for overhead items. The result is that tax costs will usually go up for the landowner in the unincorporated area if he chooses to annex. He has little incentive, therefore, to annex, particularly since he can use many municipal facilities at no cost and because many of his basic urban services are already provided by the plethora of special districts that exist in almost all counties and metropolitan areas.

In the specific case of Santa Clara County and San Jose, there are incentives for industrial and commercial areas to annex to the City because individual establishments can realize immediate benefits from lower fire insurance rates and greater police protection. As a result of these positive incentives, annexation of industry and commercial areas has been proceeding on a regular basis.

There are important lessons to be learned from the history of annexation and municipal incorporation in Santa Clara County during the development boom of the fifties and sixties. Much of the lesson appears to have been learned in Santa Clara County only after it was too late. The lesson is still, however, applicable to many growing metropolitan areas.

As mentioned previously, San Jose annexed land at an incredible
rate during the boom period, increasing its land area almost tenfold. The annexation bender was originally intended as a means to foster growth and development, but annexation could be used to limit growth. Only if land is within municipal boundaries, given current legal powers of municipalities, can the city be relatively assured that it will be able to exert effective control over its development. There is little control over land outside the unincorporated land outside the City's boundaries and none over land that is included in a new incorporation. However, annexation should only be used as a means for controlling growth if the city is legally empowered, and practically able, not to provide services to that land and if the land can be taxed at a rate that does not force it into urban uses. Unless those conditions can be met, annexation will only speed the pace of development.

Two problems emerged from San Jose's rapid annexation during the fifties and sixties. One is that it left the municipal boundaries in a shambles. (See Fig. 2.) The City annexed what it could, leaving enclaves, large and small, to be filled in later. They were not filled in, largely because of the incentive structure discussed earlier. Because it does not have a monopoly on development control on the interstitial lands within its overall boundaries, the City has had little leverage by which to shape an overall development pattern. It may have been foolish for the City officials to have extended the boundaries as they did, but only because the law and the incentive structure precluded them from later annexing the interstitial areas. If the City had been able to annex those areas prior to development, the strategy would have been an excellent one.

The second problem stems from the fact that until fairly recently in California, it has been far easier for a developed area to incorporate as a government than it was for the adjoining municipality to annex the area. San Jose has been the object of scorn for its annexation policies of the past, policies that we think tended to be largely rational given the rules of the game established by state government. San Jose's aggressive annexation policy is blamed for the formation of a large number of local governments in the area.
Figure 2. Municipal Boundaries of the City of San Jose, 1972
The criticisms of San Jose's aggressive annexation are that it created a city with wholly absurd boundaries and that it led to the formation of many more cities in self-defense of San Jose's policies. San Jose did what it should have done, except it should have done it better. If it had not annexed as it did, it would now be faced with all the problems of Eastern central cities, for the bulk of the poor and the minorities live in the older parts of San Jose, not the newly acquired portions. Through aggressive annexation, the City was able at least to acquire a goodly share of the suburban and industrial lands.

The formation of the other cities was a result of two things in combination: the desire to exclude the problems of San Jose and to protect a tax base and living environment, and the comparative ease of incorporation as against annexation. San Jose acted rationally, for the most part, given the incentive structures created by state law and the fact that most of the development in the Santa Clara Valley would have occurred even without its aggressive annexation policy.

Annexation could be a powerful tool by which a municipality could exert leverage over development patterns. Recent changes in California indicate that municipalities could annex undeveloped, uninhabited land more easily than in the past. Yet, most municipalities are already surrounded, at least in part, by developed areas whose services are being provided by special districts, whose tax rate is being subsidized by people in cities, and who are enjoying municipal parks and facilities at virtually no cost. Until this is changed, municipalities will continue to be thwarted in their attempts to manage development at their fringes. This will be true in Santa Clara County, even though city-county cooperation is at a very high level at this time concerning fringe development control, and in all other metropolitan areas where similar institutional conditions exist.

Purchase

Land purchase, either of easements or in fee simple, represents another powerful instrument whereby local governments can exercise control over the pattern of land development. Yet, this policy
instrument has not yet been used extensively in Santa Clara County or in other areas. There are a few exceptions. Boulder, Colorado, for example, has legislated that a portion of its sales tax revenue be used for the acquisition of "green belt" lands, and voters in Santa Clara County recently dictated that the County spend a proportion of its levies for the acquisition of open space.

Despite these isolated instances, purchase has not been used nearly as effectively as it might be for shaping urban development within growing areas. The primary reason appears to be lack of public money. As an area is beginning to develop, voters appear unwilling to pass bond issues to provide local governments with the funds needed for acquiring large areas of vacant land—"all the homeowner sees around him is vacant land and he somehow refuses to accept the fact that it will disappear as others like him move to the area." Later, as others do in fact move in and are willing to pass bond issues for open space acquisition, as they have done just recently in Santa Clara County, it is usually too late to use the mechanism effectively as a device for shaping development patterns. Local governments can hope then only to acquire open space for recreation and visual purposes, and not as a means for shaping development.

The problem presents a major dilemma in governance. Public officials who attempt to represent the interests of those they know will come are faced with thwarting the dictates of those already there if they attempt through some subterfuge to find funds for such acquisition. If they do not attempt to find funds for acquisition, they will be forever cursed by those who follow and find the orchards, vineyards, and open spaces gone. One possible strategy for eliminating this is to work for a change in law so that a simple majority can pass a bond issue or to work for the creation of a state fund from which municipalities can borrow to use easement and fee simple purchase as a means for ensuring what zoning does not ensure.

Location and Timing of Improvements. By controlling the timing and location of schools, sewers, firehouses, water supply, and roads, a municipality should be able to control the tempo and spatial pattern of land development. Unfortunately, it is extremely difficult for
municipalities to control the location and timing of many improvements in most metropolitan areas and even in Santa Clara County because of the diffusion of responsibility for the provision of services among a host of governments and private organizations.

The picture has changed somewhat in Santa Clara County in recent years, but its historical pattern—the pattern that led to what exists there now—is typical of what exists now throughout the nation in metropolitan areas. First, municipalities did not have the ability to extend or withhold the provision of urban services outside their boundaries. When urban services were required, it was all too easy for residents to form a special district to provide those services, whether they were sanitary, water, or fire protection services. Once formed and providing services within a defined area, neither the city nor the county could do anything, under the provisions of California State law, to preclude a developer from developing land, provided he met the minimal requirements of the California Subdivision Map Act.

Second, because of the State's annexation laws, the cities had little opportunity to employ annexation effectively to bring areas into their municipalities prior to the formulation of special districts or new municipalities. San Jose, with its very aggressive policies was not able to develop a solidly filled-in municipality—its boundaries meander all over the landscape. Because the cities did not control the land area, they could not control the provision of services and therefore could not control development patterns.

The third, and closely related problem, is illustrated by the existence of 26 school districts within the municipal boundaries of San Jose. The cities clearly cannot use schools, or extend or restrict school services, to shape development. On the other hand, the schools are bound, too, to provide schools where people live. If the schools were provided by general purpose local government, rather than by special, single purpose local governments, then schools could be used more effectively as a means for helping to manage development patterns by integrating them with other public services.

The central point is that the diffusion of authority and responsibility for the provision of urban services among a host of single function governments has made it almost impossible for local government
to withhold or provide services as a means for managing urban development. The single purpose governments have no responsibilities for controlling development. Their only incentives are toward growth and expansion, and to optimize their own cost-revenue picture. With such incentives and with their autonomy for special districts, local governments generally have little hope of counting on cooperation by special districts.

The picture is somewhat mitigated in Santa Clara County because of LAFCO and because development has swallowed up areas previously served by special districts. LAFCO is working to keep additional special districts from being formed, and this may ease some of the problems in the County, particularly since the main burst of growth is already over. Yet the problems of controlling development in other parts of the country with similar institutional settings remain. And, in Santa Clara County, which is now beginning to shift its concern from developmental to social problems, there is a continuing concern for how general purpose and special purpose local governments can possibly work together to address social problems effectively.

Pricing. Charging for the services provided by local government offers the potential of being a powerful policy instrument for effecting management over growth. Unfortunately, many local governments in Santa Clara County and throughout the nation have not begun to employ pricing as a positive instrument of public policy.

During the heyday of growth in the Santa Clara Valley, the City of San Jose pursued a pricing policy that actively encouraged low density, leapfrogging sprawl. The City charged a flat fee for extending services and public facilities to new development regardless of differences in marginal costs for the service extensions. Subdividers paid the same fees for subdivisions that were close-in or far-out.

Mason Gaffney has argued that pricing policy is perhaps the only effective mechanism for containing urban sprawl, and the argument is fairly convincing.* A number of California communities, including

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San Jose, are now charging additional development fees in an attempt to recoup costs, but even these attempts are still a long way from using pricing as a positive policy instrument for managing urban growth and change.

As indicated early in this report, many citizens who are against growth are concerned with the local tax rate. They contend that new development does not pay its way, resulting in higher taxes for the persons who are already residents of the community. It may well be true that certain kinds of new development does not yield as much in revenues at current tax rates as it requires in public services. If new development were required, however, as a condition of development, to pay for the marginal costs they generate for the community, then those reasons for attempting to exclude development would simply not hold water. Current municipal policies concerning marginal costs of development tend to thwart market processes rather than to employ those processes as one instrument for helping regulate growth processes. Even though pricing alone would not make it possible for cities to manage growth, it would at least make the consequences of additional growth less distasteful.

Much work must be done before pricing can be employed as a municipal policy instrument as a matter of course. The main work that remains to be done is in developing reasonable and useful models by which the costs of many public services can be estimated for various kinds and configurations of the new development. Municipalities account for their expenditures to satisfy legal requirements and not for purposes of knowing what services they produce, how they vary in quality, and how much they cost on a unit basis. Until municipalities develop the accounting means that will enable them to meet both state legal requirements and the practical cost accounting requirements needed for pricing, they will be unable to implement pricing policies that are equitable and realistic.

*Rand, as part of its San Jose studies, has developed the structure for such a cost model and done detailed costing work in selected services. See G. Sumner and A. Bonner, Design for an Urban Services Resource/Cost Model, Rand Corporation, R-1245-NSF, June 1973.
CONCLUSIONS ABOUT GROWTH MANAGEMENT BY INDIVIDUAL CITIES

It is the case in Santa Clara County that individual municipalities have had considerably more ability to manage growth within their boundaries than the collection of local governments within the County has over the metropolitan area. Nevertheless, even municipal governments do not have very much control over development at their fringes, except in unusual cases.

The extent to which a municipality can manage growth effectively depends on several factors: the extent to which land within its boundaries is already developed, its relative position vis-a-vis its neighbors in assessed valuation per capita, and the nature and homogeneity of political expressions in the community concerning the desirability of growth. Small communities are able to exclude development through restrictive zoning practices and refusal to extend services to undeveloped areas, provided, of course, that the municipality feels sufficiently comfortable with the tax rate required to provide services demanded by the public.

Municipalities on the west side of the Santa Clara Valley have been able to manage development reasonably well. Most are contiguous to communities like themselves, and are quite homogeneous within themselves. Since each has shared interests with its neighbors, there have been relatively few conflicts about restricting growth. Since each is reasonably well to do, there has been little need for intense competition for tax base among them.

There are fewer incentives to shut off growth in the cities in the eastern and southern parts of the County. Milpitas and San Jose require high tax rates to provide needed services and, while there is some sentiment to slow or stop residential development, there is equally strong sentiment to encourage commercial and industrial development for purposes of expanding the tax base.

There are, however, additional problems associated with municipal attempts to regulate growth and development. First, some of the policy instruments that municipalities need to manage growth effectively at the urban fringe are diffused among special districts, including, in numerous instances, provision of basic urban services. Second, of the
policy instruments that do exist under the legal control of cities, there are strong behavioral reasons that they cannot always be employed effectively. Moreover, some potentially powerful tools, such as pricing for municipal services, are seldom employed.

A final problem in municipal control of development in a metropolitan area is that a municipality essentially has control only within its boundaries. If one community attempts to keep people out, they tend simply to go into the next, adjoining municipality or unincorporated area, contributing further to the sprawl and doing little for control of growth on an areawide basis. With each municipality acting independently concerning growth, and with many of them faced with different incentives, the policies of each municipality tend to frustrate those of neighboring communities.
IV. SUMMARY AND CONCLUSIONS

To exert control over a system means to be able to exert sufficient leverage on it so that the behavior of the system and its products occur within a predetermined acceptable range of performance. Given the current institutional arrangements in most areas of the nation, including those of Santa Clara County, it is difficult to envisage that local governments within metropolitan areas can exert very much control over either the pace or characteristics of urban development. Some areas, given effective leadership, sufficiently strong shared interests, or special circumstances will be able to exert more management control over the pace and character of development than will others. Overall, however, the institutional setting is such that the likely outcome of an attempt to manage growth and development effectively will be failure.

At the level of the individual municipality, the picture is paradoxically both brighter and more dismal. The ability of a single municipality to control the outcomes of development within its boundaries depends in large part on the position of that community vis-à-vis others in the metropolitan area. To the extent that the community is better off in terms of per capita tax base and more homogenous politically, it can control more of what happens within its boundaries. But to the extent that one community can exclude the poor, minorities, and the high cost-low revenue components of the metropolis, the more likely it is that they will be concentrated in other municipalities and the more likely it is that there will be political and social friction within the metropolis.

In order for there to be effective management of growth and development at the metropolitan level, there will have to be fairly basic institutional changes, particularly in the area of local government finance. These changes must be made at the state level, since they are beyond the ability of local government to change and largely outside the constitutional prerogatives of the federal government. The role of the state in reform is critical to developing a system of
local governance in which attempts at local and areawide management of urban development stand a better than equal chance of success.

It must be remembered that these conclusions are based largely on field analysis in only one metropolitan area—a metropolitan area that has moved from fostering rampant growth to attempting to manage growth with some limited success. The analysis has been augmented with anecdotal information from other metropolitan areas, but, even so, the statements below are much more hypotheses than they are rigorously supported conclusions. The purpose of this research has been to look for causal relationships underlying the apparent general inability of local governments to manage growth effectively—not to test specified hypotheses rigorously once and for all.

**AREAWIDE GROWTH MANAGEMENT**

There was little effective management of growth on an areawide basis in Santa Clara County during the boom development period. That can be accounted for in large part because there was not much interest in really exercising control over the pace and character of urban development for much of that time. However, now that there is concern for being able to exercise such control, local officials and administrators have found themselves in the position of having to fashion new institutions within the constraints of existing state legislation to assist themselves in that effort.

Three factors militate against Santa Clara County's success, despite the determination and sound intentions. First, there are strong external forces at work over which they have little control—federal policies in a variety of areas, the composition of the economy, and national trends and tastes. Second, the characteristics of the system of local government finance, the urge for socio-economic separatism on the part of some municipal jurisdictions, and the existing multiplicity of local municipal jurisdictions, mean that cities in the metropolitan county have different views about what is to their advantage. There are built-in incentives for dysfunctional competition and lack of cooperation among dissimilar municipalities. Finally, the officials in Santa Clara County find themselves having to create a set
of institutions to effect the policymaking and enforcement needed for effective areawide control of growth. Like most of its counterparts, the Association of Bay Area Governments apparently has not been able to act effectively within this portion of the Bay Area as a forum for policymaking and as a vehicle for ensuring that policies affecting management of growth are carried out in accord with an overall policy framework. Nor has the County government, limited as it is in its relationships with municipalities, been able to act effectively as a dominant force to shape either municipal policy or areawide development.

Based on our knowledge of other metropolitan areas, Santa Clara County is not unique in its relative inability to master the forces of development so that the outcomes are in accord with established objectives. Despite the demonstrated competence of local elected and appointed officials alike, they are unable to gain the level of control they desire simply because the system of local governance is not designed to facilitate such public management. The rules within which local officials must work encourage fragmentation of local general purpose government and diffusion of public authority. In addition, the rules dictate a fiscal system that encourages destructive competition among local governments so that cooperation among localities on matters of true importance is more more the exception than the rule.

LIMITS ON THE ABILITY OF INDIVIDUAL UNITS TO MANAGE GROWTH

Just as there are limitations on areawide management of urban development, there are major limits on the ability of individual local governments to manage growth rates and development patterns. First, many of the basic forces shaping growth and development are exogenous to them. Second, development tends to take place first outside their boundaries where they have had in the past relatively little ability to employ tools for managing the development. Third, the struggle for relative advantage or at least parity in assessed value per capita makes it politically difficult to say no to developers in those communities that do not have a favorable assessed value per capita.
Local discretionary space concerning growth management varies with characteristics of the community. A municipality that has large tracts of undeveloped land is clearly in a better position to manage urban growth and change than one already fully developed or with major developmental patterns already established. San Jose, for example, was in a better position to manage development before the boom started than it is now with much of its territory already built up and with the dominant characteristics of development pretty well established in remaining areas.

It would appear that many municipal decisions concerning development are made without an attempt to ascertain the extent to which one course of action or another will preserve later options for the community. Decisions are possible that actually enlarge the range of options for future actions; a more common case is that one or another decision will preserve a greater array of developmental options than other decisions that appear equally plausible in terms of more obvious consequences.

Discretionary policy space concerning development also varies by the position of the municipality relative to its neighbors in terms of assessed value. Those with a large tax base per capita can afford to be selective about who and what they allow to come within their boundaries. Those with a felt need for more tax base cannot afford to be as selective. There is an exception. A city like San Jose that is likely to be the recipient for requests to develop housing, because of attempts to exclude residential development in other areas, can put pressure on developers to build according to local standards and policies. There isn't very much competition for middle income housing in the County, since many municipal officials are of the opinion that such development costs more to service than it brings in revenue at existing tax rates.

Finally, the ability of a local government to manage growth depends to a considerable extent on the expressed values of residents concerning growth and the extent of agreement on that position among the electorate. A city official who attempts to encourage or discourage growth in the municipality against the wishes of the electorate is in trouble.
There appears to be an ample array of policy instruments legally available to local government for the management of urban growth and change: police powers of zoning, subdivision control, aesthetic controls, official maps, and so forth; annexation; purchase of land and rights in land; location and timing of improvements; and pricing of public services. There are severe practical limits, however, on the extent to which individual local jurisdictions can actually use them to manage growth effectively. Fragmentation of authority to use policy instruments among local units, particularly with special district governments at the urban fringe, is a major obstacle in using the tools. The powers reside with a number of governments and there is little hope of coordinating their use effectively. For the "have not" municipalities, there are powerful incentives not to employ the tools to limit growth when growth offers the prospect of holding the line on or even reducing the local tax rate. Finally, the tools that are available are most effective within the city's boundaries, and, more often than not, given the difficulty of annexation, development tends to occur first outside the city's immediate boundaries.

OVERVIEW

The individual local government's problem concerning growth control is different from the problem at the areawide level. The collectivity of local governments within the county cannot manage growth effectively because public power is so fragmented that legally available policy instruments cannot be applied effectively. The individual municipality is also faced with fragmentation of authority, but there is the equally important problem of the lack of incentive in the poorer communities to slow growth. They have the continuing hope of improving their relative tax base position. The individual jurisdiction has more exogenous variables to cope with than would a metropolitan-wide mechanism. Moreover, the individual city encompasses less of the system to be controlled than would a metropolitan institution and, therefore, has commensurately less leverage over the urban system.

The urban system is defined here, for working purposes, as the interrelationships of the people and institutions within a defined
space—in this case, within Santa Clara County. Our concern is with the set of actors and interrelationships having to do with land development that are within the domain of governmental concern; i.e., the range of development outcomes and activities about which local government is duly authorized to try to do something. The control mechanism for this system is the set of local governments within the metropolis, including the county, municipalities, and special purpose governments including school districts. Together, they are the "system of local governance" within the metropolitan area.

The critical issue at hand, when one views the problem from this perspective, is the extent to which, and the conditions under which, the control mechanism can actually exert sufficient leverage over the system to direct its behavior so that the desired kinds and levels of outcomes are produced. The extent to which a control mechanism can actually exert management over a system's behavior and outputs varies, depending on the characteristics of the system, the control mechanism and the environments of both system and control mechanism.

In the case of the urban development system, many of the forces that determine the pressure for growth and the characteristics of development are really beyond the control of the local governments. To the extent that forces influencing the behavior of the system are outside the ability of the control system to influence, the control system will have less control over outcomes of the development process. However, it is possible for a control system—the system of local governance in this case—to attempt to deal with exogenous forces, thus making them subject to its control. In essence, this is a principal argument for developing areawide institutions for establishing basic policies concerning growth management. Too many forces are outside the control of individual jurisdictions like the City of San Jose for it to be able to manage growth effectively. By expanding the control system to encompass the entire County, few forces are exogenous, and the more likely it is that local government can manage development effectively.

A second means of trying to deal with exogenous forces is to establish what are called coping mechanisms. If there are powerful
Incentives for sprawl because of cost structure for developers, local governments can change their pricing policies to change the price structure for developers. If the local fiscal system is perverse, in that it leads to dysfunctional competition among local governments, then attempts can be made through state government to change the fiscal structure so that the natural tendency is for cooperation rather than for competition.

A second major feature of a control system that influences its ability to manage a system under its jurisdiction is the degree to which the control mechanism is integrated within itself. It is to little avail to have all the necessary policy instruments for effecting leverage over development if there is no institutional capacity to employ those instruments in a coordinated way. The current efforts at control in Santa Clara County are, in essence, attempts to integrate the control system so that the parts can work together to exert leverage effectively. The numerous local governments in Santa Clara County, under previous institutional arrangements, acted as almost autonomous control mechanisms. Each exerted its limited set of controls over a fragment of the urban system. Each individual unit found that it was able to exert control over some facets of development within its own boundaries, but that there was no effective control over what happened in its immediate environment, or in the County as a whole. There was no real means for assuring that the individual elements of the overall control mechanism would work cooperatively to manage the development system.

For there to be an effective control system for urban development in Santa Clara County, or any other metropolitan area, it is imperative that the control mechanism have a sufficiently large geographic jurisdiction that it embraces many of the forces that shape urban development and that it be sufficiently integrated so that the individual parts of the control mechanism can act in concert to employ the tools of management.
BASIC PROBLEMS WITH THE EXISTING CONTROL MECHANISMS

Currently, responsibility for managing development is lodged with municipal governments in almost all the states. This arrangement worked well in a time when municipalities were not side by side in complex, highly interrelated metropolitan areas. It worked well, in other words, when the control mechanism matched the characteristics of the system to be managed, i.e., when it had jurisdiction over the relevant urban system and had the necessary mechanisms for coping with behavior of that system. In metropolitan areas today, continued vesting of the primary responsibility for managing urban development with the municipality does not make much sense. The urban system has far outstripped the institutional management capabilities of municipal government. Individual cities in a metropolitan area do not have jurisdiction over enough of the relevant system for control. Moreover, because of the fragmentation of political responsibility among many and varied governments, they do not even have control over many of the policy instruments that are needed to exert management over even those fragments of the metropolis for which they have jurisdictional responsibility.

The most important element, however, in the general inability of local governments to exert management control over development is that there is no assurance that the collection of municipalities within a metropolitan area will make decisions that, when taken together, will result in effective public management over what happens. The local fiscal system, leading as I believe it does, to balkanization and short-range, suboptimizing behavior, has almost ensured that each local government will be so bent on self-determination that there will be no effective local determination of development.

THE CRITICAL ROLE OF STATE GOVERNMENT

For any specific instance of uncontrolled growth or rampant sprawl, one could place the blame on foolish or venal behavior on the part of local officials. Yet, where there have been attempts to control growth locally, with the exception of exclusive enclaves within metropolitan areas, they have usually met with failure—and there is sprawl everywhere. It would be absurd to argue that all public officials are
either foolish or venal, for they are not. The difficulty is that the incentives currently guiding behavior of actors involved in urban development, and the institutional relationships within which local governments must act, are simply such that management of growth is an extremely difficult task at best.

The local governments and officials we have observed in Santa Clara County tend to act rationally within the set of rules that have been provided, but they have found themselves unable to manage growth effectively on an areawide basis and, in many instances, even within their own municipalities.

Indeed, to the credit of local elected and appointed officials in Santa Clara County, they have frequently acted irrationally in terms of the incentive structure that exists in order to make better decisions concerning the metropolitan area. That is, instead of placing the immediate interests of their individual, limited constituencies at the fore, as the incentives would have them do, they have had sufficient acumen to look beyond immediate interests to longer term interests of their collective constituencies and then to act accordingly.

A system of local governance that requires public officials to disregard institutional incentive systems in order to make wise choices is in a state of institutional crisis. This suggests an urgent need to reassess the rules that lead to the situation and to make changes accordingly.

State government is the dominant source of the rules and relationships within which local governments act. The state defines the reliance of local governments on assessed value and sales taxes for revenue, establishes the ground rules for annexation, traditionally permits and, by default, encourages political fragmentation, and provides the rules for land subdivision and development. It is at the state level that the rules must be changed if the incentive structures governing local behavior are to be changed and if local governments, individually and collectively, will be able to manage urban development.

No one, I think, will argue that the state has purposefully set
out to create the current situation. What exists exists because decisions were made concerning a variety of matters essential to the operation of local governments over the past hundred years, the aggregation and the by-products of which have resulted in a situation where a principal function of local government simply cannot be performed effectively.

Nor do I think anyone would argue that it is entirely state government's fault that the municipalities and counties are in the position that they are now in concerning their ability to determine their own future. The very set of incentives that almost precludes effective cooperation by local governments within a metropolitan area tends to keep them from jointly supporting changes that might result in a greater collective ability to manage themselves. Clinging to illusions of self-government, when indeed there is often no control over what will happen to them under the current set of arrangements, and to concerns about immediate consequences for next year's tax rate, local governments have not encouraged the states to take action that might lead to greater local effectiveness.

Now, in order for local governments to attempt to manage growth, they must work against incentives that have been inadvertently structured in such a way as to usually provide disincentives to control management. They must attempt to cooperate with adjoining municipalities on matters in which the incentives are competition rather than for cooperation. And in order to manage development patterns within their own boundaries, they must confront market processes rather than being in the much more tenable position of being able to employ market mechanisms to provide incentives that encourage development patterns that are in accord with politically agreed upon public objectives. If the system of local governance within the metropolitan area is to be able to manage growth effectively, then state action is required to restructure those institutional relationships and incentive structures rather dramatically. This may, indeed, require some basic changes.